



Academic year 2017-2018



UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO



UNIVERSIDAD DE CANTABRIA



UnB

**Erasmus Mundus Joint Master Degree
in Economics of Globalisation
and European Integration**

“Economic Sanctions of EU against Russia – Does It Make Sense?”

Master dissertation

Student

Mykola Mazur

Home institution

Choose an item.

Vysoká škola ekonomická v Praze

Supervisor

Pavel Žamberský

Submission date

30 September 2017

Acknowledgments

I would like to express my sincerest thanks to Pavel Žamberský for his guidance, support, patience and valuable recommendations.

Declaration of authorship

I, Mykola Mazur, hereby declare that the thesis “Economic Sanctions of EU against Russia – Does It Make Sense?” was written by myself, and that all presented results are my own, unless stated otherwise. The literature sources are listed in the References section.

Prague , September , 2017

.....
Signature

Contents

LIST OF ABBRIVIATIONS

LIST OF TABLES

LIST OF FIGURES

1. Introduction	8
2. International sanctions against Russia in connection with annexation of the Crimea and violation of territorial integrity of Ukraine	10
2.1. Reasons for imposition of sanctions against Russia	11
2.2. List of sanctions against the Russian Federation	13
2.2.1. Sanctions of the USA against Russia	15
2.2.2. Sanctions of the European Union	17
3. Economic impact of sanctions	19
3.1. Impact of sanctions of the economy of the Russian Federation	19
3.2. Economic expenses of the EU in connection with imposition of sanctions	25
4. Econometric analysis	32
4.1. Data	32
4.2. Structural vectorial autoregression model	33
4.3. Description of results	34
4.4. Check of compliance of an econometric model	38
5. Conclusion	41
6. References	43
7. Appendixes	46

LIST OF ABBRIVIATIONS

APEC – Asia-Pacific economic council

ENP – European Neighborhood Policy

EU – European Union

Eurostat – Statistical service of the European Union

FATCA – Foreign Account Tax Compliance Act

GDP – Gross Domestic Product

ITC – International Trade Centre

NSDC – National Security and Defense Council

RCB – Central Bank of Russia

RF – Russian Federation

SBU – Security Service of Ukraine; law-enforcement authority

CIS – the Commonwealth of Independent States

OECD – Organisation for Economic Co-operation and

Development

USSR – the Union of Soviet Socialist Republics

USR – Ukrainian Soviet Socialist Republic

VAR – Vector AutoRegression

WF – The World Factbook

LIST OF TABLES

Table 3.1 Indicators of a condition of the Russian economy from 1995 to 2016.

Table 3.2. Structure of a business volume of Russian Federation over groups of the countries from 2011 to 2016

Table 3.3. Commodity structure of export and import of Russian Federation for 2015 - 2016.

Table 3.4. EU Russian bilateral trade 2005-2015

Table 3.5. Dependence of the EU countries on export to Russian Federation, bn. USD

Table 3.6. Influence of the Russian self-sanctions for production and employment of the certain countries

Table 3.7. Consequences of sanctions for separate industries of the EU countries

Table 4.1. List of variables

Table 4.2. Description of variables of model

Table 4.3. Forecast error variances of a separate variables

Table 4.4. Parameters and statistical characteristics of the equations of VAR model

LIST OF FIGURES

Figure 3.1. Structure of a business volume of Russian Federation by groups of countries. January – June, 2017

Figure. 3.2. Main trading partners of Russia, share of the total amount of import and export in 2016

Figure 4.1. Functions of SVAR model on empirical data of Russia. Exchange rate (depreciation of the Russian currency)

Figure 4.2. Functions of SVAR model on empirical data of Russia. Gold and foreign exchange reserves (reduction of gold reserves)

Figure 4.3. Functions of SVAR model on empirical data of Russia. Balance of payments

Figure 4.4. Functions of SVAR model on empirical data of Russia. GDP growth

1. Introduction

The relations of the European Union with the countries of the immediate environment, including Ukraine, throughout the development were determined by the different formats outlined by politicians and the strategy of the EU. The European Neighbourhood Policy (ENP) started in 2004 is based on Communication of European Commission “Wider Europe – Neighbourhood” from 2003. The policy determined a framework of forming the relations of the EU with 16 countries to the East and the South from borders of the European Union and was aimed at the development of common interests and a cooperation in priority spheres as democratization, the supremacy of law, protection of human rights. Same year (2003) the European policy on security “The Global Strategy for Foreign and Security Policy of the EU” was approved to strengthen peace, stability and security in Eastern Europe. ENP offers bilateral relations with all countries that border the entire EU by land and sea, including the Mediterranean Union countries. In further, European Union continues to be interested in strong and stable eastern partners.

In May, 2009, in order to strengthen bilateral relations between EU and eastern countries a new policy – “the Eastern Partnership” (EP) was adopted during Prague Summit, Czech Republic. The aim was to create deeper opportunities for free trade and investments, asses with socio-economic and political reforms leading to convergence with EU laws and standards of six countries - Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine. And though ENP specified initiatives incorporate various aspects of a cooperation including safety issues, nevertheless it is possible to characterize them as unilaterally directed and highly regional.

After the beginning of aggression of the Russian Federation against Ukraine geopolitical and the security situation around the European Union significantly changed. It induced the EU to develop new complex vision of the foreign policy and security policy and bring it to higher global level. As a consequence the Global strategy of the EU was accepted in June 2016 (EU Global Strategy “Shared Vision, Common Action: A Stronger Europe”, EUGS). One of the features of new Global strategy is annual evaluation of progress and determinations of prospects of further implementation.

It is also necessary to note that the Russian-Ukrainian armed conflict shows a weak unity of Europe against external threats today. Most certainly, the most clear justification for that is the divergence of interests and views of EU Member States in questions of their foreign policy priorities and on the East European direction, in particular. Moreover, the influence of Russian counter-sanctions on the economy of the certain member countries remains ambiguous and persists to be a problem of the unity of Europe.

The main interests of the majority of states of the EU in the East European region have the economic nature connected with energy sector and access to new markets. Another aspects in which certain states of the European Union are interested in cooperation with countries of Eastern Europe are security issues and immigration.

Thus, an objective of this research is to evaluate the efficiency of implemented sanctions on the economy of Russian Federation. Thereby, in these work consequences of sanctions, which EU applied against Russia in protest at Russian aggressive actions in Crimea, Donbass area and other eastern regions of Ukraine, as well as countersanctions (“self-sanctions”), which Russian Federation announced against such countries, will be considered.

On the basis of the carried-out analysis forecasts of possible influences of such consequences on development of Russian economy will be made. This work will also include prediction of the possible evolution of the GDP of Russian Federation, Russian ruble exchange rate, gold and foreign currency reserves.

2. International sanctions against Russia in connection with annexation of Crimea and violation of territorial integrity of Ukraine

In conditions of the modern global interdependence of countries violation of existing international law, rules of interaction, cooperation and coexistence by any country is followed by imposition of the international economic sanctions. Economic sanctions at the present stage of the existence of the international relations are nearly the only reliable instrument of influence on the state, which breaks rules of international law, resorts to armed conflicts and violence and infringe on the interests of the partner states in all spheres of foreign economic activity. The modern international relations shall continue to enhance the process of sanctions policy and to accurately determine the purposes, which shall be reached by economic sanctions.

The kingdom, the states or the international organizations as an instrument of influence on the behavior of the government of another state, rather often uses the international economic sanctions without resorting to the military conflict. The efficiency of sanctions as the tool of foreign policy is proven to be true by their long history of use in the international diplomacy, and their growing popularity since the end of "Cold War". So, the first example of imposition of economic sanctions mentioned in the history is the "Megarian decree of Athens" in 435 B.C (Kaempfer & Lowenberd, 2007, p. 869), according to which Athens, which had the greatest power in Ancient Greece prohibited to merchants from the Megara area perform trading activities in the markets of Athens. After the end of World War I sanction as a restrictive measure began to be used more often: for example the USA during 84 years (1918 - 1992) used sanctions 54 times, and in 9 years during the period from 1993 to 2002 sanctions were applied by the US already 61 times, this may proclaim efficiency of this instrument of the international influence.

Before passing to more detailed consideration of sanctions against Russia over Ukraine conflict and violation of territorial integrity it is necessary to define sanctions and determine existing types of economic sanctions as a tool. In Galtung's (1967, p. 379) opinion economic sanctions refers to actions made by one or more international actors, which he calls "the senders" against one or more other international actors called "the receivers" in order to achieve one or both of two objectives: "to punish the receivers by depriving them of some value and/or to make the receivers comply with certain norms" which are supposed to be important by senders.

According to Nincic & Walensteen (1983, p. 3) imposition of economic sanctions is an attempt "to inflict economical pain on the government of other country" in order to achieve the certain political goal. The scientists believe that such actions are triggered by political power which intervenes into "normal functioning of economic relations". Lindsay (1986, p. 184) defines economic as "measures in which one country (the initiator) publicly suspends a major portion of its trade with another country", which is usually called the target in order to achieve the certain political goals.

Tung (2007, p. 98) refers economic sanctions as "an action or a threat from the state or the coalition of states-initiators of sanctions" or international organization

“to violate the usual economic exchange with another state” in order to punish it, change its political position or demonstrate internal or external audience its own opinion concerning the policy of the state-recipient of sanctions. According to Masters (2017) economic sanctions can be understood as “the withdrawal of customary trade and financial relations for foreign and security policy purposes”. Thus, economic sanctions can be divided into two large groups: 1) “comprehensive”, which prohibit to make commercial activity with the whole country, and 2) “targeted” which ban to make transactions with particular persons, groups of people, companies, businesses etc.

According to the Russian scientists (Yanova, Kudryavtseva, Mikhalevsky, 2016, p. 134), economic sanctions are "measures of forced nature" within international law and in the established procedural order which are applied in relation to the state, "avoiding responsibility for violation of international law", committed by the state "for maintaining the international law and order".

American researcher Doxey (1980, p. 14) distinguishes 4 main types of economic sanctions: 1) trade control; 2) terminations of provision of a financial, managerial or technical assistance; 3) freezing of financial assets of the companies or bank accounts of individuals; 4) forming a black list of companies involved with bilateral business operations. According to Kaempfer & Lowenberg (2007, p. 869), in practice of the international relations such groups of sanctions are most often applied: 1) diplomatic sanctions - dispatch of the ambassador or breakdown of negotiations; 2) financial sanctions – the terminations of provision of financial aid, prohibition or toughening of international credit; 3) trade sanctions – restriction of export and import, trade embargo; 4) investment – restrictions on capital flows to the target or, in some cases, mandatory disinvestment; 5) "smart" (individual) sanctions – freezing the offshore assets of individual members of the target nation's ruling elite, or travel bans on government officials and party cadres.

Economic sanctions were for the first time applied to Russia in 1917, owing to the decision of Bolsheviks (“the majority”), who came to the power, to cancel external debts of the imperial government and to nationalize the entities belonging to the foreign equity. In 1929 the former countries of the Entente prohibited to the western banks and companies to accept gold from the USSR, and in 1930 the import ban to the majority of the western countries of all goods made in the USSR except grain was imposed. However the efficiency of "gold" and trade blockade was low (Katasonov V., 2015).

2.1. Reasons for imposition of sanctions against Russia

Ukraine always fell within the scope of the vital interests of the Russian Federation. In 2014 annexation of Crimea by Russia and support of diversionary subversive activities of the terrorist groups in the east of Ukraine caused comprehensive condemnation of the international community.

It should be noted, that from the moment of the collapse of the USSR Russia has never left the idea to return itself Crimea, which was a part of USSR in 1954. The issue that peninsula may historically belong to Russian territory was already brought into question after the first years of the presidency of Vladimir Putin. However, the plan for annexation of Crimea was included into an active phase only after the “revolution of Dignity” in 2014. As soon as of Ukraine Viktor Yanukovich

left the country, on February 21, 2014, in front of the Supreme Council of Crimea in Simferopol the demonstration of supporters of the annexation of Crimea to Russia took place, and in two days even bigger demonstration was organized in Sevastopol(home of Russian Black Sea fleet). Participants of the protest expressed their mistrust of administrations of Sevastopol and, by violating all possible legal/judicial procedures, elected the new city mayor – the citizen of the Russian Federation – Aleksei Chalyi. On February 27 the Supreme Council of the Autonomous Republic of Crimea was captured by people in a military uniform without stripes, which, as it became clear later, were soldiers of special troops of Main Intelligence Directorate of Russia. The operating government was dismissed, and the “Russian Unity” party leader Sergey Aksenov was appointed the new prime minister, who declared holding a referendum "about enhancement of the status of the peninsula" and after asked the President of Russia for the help. As a result, on March 1, Vladimir Putin made in the agenda of the Federation Council an inquiry for use of armed forces in Ukraine, and Council instantly allowed starting an invasion. Already on March 16, in conditions of occupation, the illegitimate referendum took place and the result was almost absolute win of Russian party – 82,99% of whole region voted to join Russian Federation. The next day, the Supreme Council of Crimea, which by that time was already dismissed by the resolution of the legitimate Parliament of Ukraine (Verkhovna Rada of Ukraine), all the same, proclaimed Crimea an independent state (24.channel, 2014). More than two million people had to abandon their home due to Russian occupation of Crimea and military invasion into Eastern parts of Ukraine.

It is important to note, that aggression of Russia against Ukraine which represents a serious challenge to all system of the European security intensified researches on economic sanctions as an instrument of influence on countries which military orientation and control threatens to escalate into world war with a danger of using weapons of mass destruction.

The choice of the USA and the EU member states to proceed with economic sanctions to control the aggression of the Russian Federation against Ukraine and a de-escalation of the Ukrainian crisis in general convincingly witnesses feasibility of carrying out a comprehensive investigation of this mechanism of an international political impact (Kagan R.). Therefore, in connection with unconcealed aggression of Russian Federation against Ukraine Western countries made a number of demands, primarily: to respect and follow the rules of international law and the existing international commitments, including the Budapest memorandum 1994, to stop intervention in internal affairs of Ukraine and to pass to the solution of all matters with Ukraine through political dialogue - in particular, within so-called contact group on questions of Ukraine.

Russian government refused to recognize the legitimacy of the new power of Ukraine, which, according to it, came by the unconstitutional military takeover, and doesn't possess the national mandate, and therefore the Russian Federation refused to consider it as an equal participant in foreign policy dialogue.

Imposition of economic sanctions by the western states against Moscow became the answer to such policy of the Russian Federation. Sanctions act as a model of proportional reply of the international community to threat, although, the impact on each certain participant of worldwide policy is inequable.

Because of a large number of participants and a binding character, it is very difficult to bypass multilateral sanctions and also to avoid responsibility for their violation as they can be applied not only by certain countries but also within the influential international organizations of the EU which demand from the member countries strict abidance to rules and requirements of sanctions regimes under the threat of application of adequate measures of punishment against their violators.

The reasons for the imposition of economic sanctions against Russian Federation are reflected in official documents of the EU, which changed and developed in process of development of the conflict between Ukraine and Russia. Actions of Russia "undermining or threatening the territorial integrity, sovereignty and independence of Ukraine" were the initial reason for the imposition of sanctions (European Council, 2014-b). In this situation, it is about recognition of the new status of Crimea by Russia. Further, the formulation was a little mitigated and sanctions were imposed in connection with actions of the Russian Federation, "destabilising the situation in Ukraine" (European Council, 2014-c). However, escalation of the conflict in the east of Ukraine in September led to the fact that EU countries returned to an initial formulation of the bases for applying sanctions (European Council, 2014-d), and in December the formulation of the reasons for imposition of sanctions already sounded as: "illegal annexation of Crimea and Sevastopol" (2014-g).

Thus, it is possible to state that a formal reason for the imposition of sanctions against the Russian Federation became: 1) annexation of the Crimea and 2) military intervention of Russia in the conflict on Donbass area and eastern regions of Ukraine. At first, Western countries suspended cooperation in the military sphere and their sanctions had exclusively political nature: cancellation of bilateral negotiations and planning of conferences (suspension of preparation for holding the summit of "eight" in Sochi), prohibition on the entrance of some individuals. As for economic sanctions, countries differentially approached this question, according to dependence on the Russian Federation.

Today, in conditions of processes of globalization and deepening of the interdependence of national economies it is usual, but far ambiguous tool of foreign policy, it consists of export and/or import restrictions, investments restrictions and prohibition of financial transactions.

At the moment the Ukrainian-Russian relations aren't settled, and what is more, since the beginning of separatist performances, which developed into a direct military opposition between the Ukrainian government and the terrorist organizations supported by Russia in Eastern and southern Ukraine, number of sanctions has increased. Canada, Japan, Norway, Switzerland, etc. has joined the US and countries of the European Union in this regard.

2.2. List of sanctions against Russian Federation

As it was already stated above, considering incomparability of military capacities of Russia and Ukraine and also defiantly proclaimed readiness of use of tactical nuclear weapon by Russian side, complex sanctions, which covered initially individuals, and then (in process of strengthening of sanctions) trade and financial sector, became a crucial element of reaction of the world community to policy of the Russian Federation. EU countries imposed such sanctions in the form of identical and

urgent measures as it is provided by the Maastricht agreement (Vishnevskaya, 2005, p. 34). Since March 2014, the EU adopted a number of resolutions where the indignation concerning actions of Russia against Ukraine is expressed, including introduction and extension of sanctions (Kraatz, 2014, p. 2).

The economic sanctions directed against Russia have different roots, structure, mechanisms and purposes. Distinctive feature of these sanctions is their specific (“dot”) orientation, i.e. restrictions are imposed not on the state in general, as on the single geoeconomic actor, but on certain residents of the country: commercial structures and individuals. On the eve of the referendum in Crimea the USA and Europe agreed on the three-stage system of various actions in the form of threats, sanctions, and condemnation of Russia:

1 stage (on March 6) – suspension of negotiation process concerning partnership agreements, meeting of G8 and also the sanction against group of officials;

2 stage (March – July) – on March 17, Ministers of Foreign Affairs of the EU Member States made the decision to pass to a new stage of sanctions and introduced restrictions in the form of a protest for entrance and freezing of assets for 21 Russian and Crimean officials. Thus, the list of Russian officials under sanctions, as a result of annexation of Crimea, has extended and reached 33 members. On 6 March, 2014, the US imposed visa bans and asset freezes on certain Russian and Ukrainian individuals and organizations. On 17 March 2014 the EU followed suit with a list of 21 individuals, since expanded to include 146 persons and 37 organizations (Ukrainian Pravda, 2014). The list of sanctions included a number of persons and the Russian companies, which provided support to a violation of territorial integrity and sovereignty of Ukraine. On July 17, the Boeing-777 at Donetsk was hit, that became the reason of strengthening of the EU sanctions. So-called Luhansk National Republic, Donetsk National Republic, "The federal state of Novorossiia", "International union of the public associations" and, also, number of a paramilitary organization participating in the conflict on the side of invaders had become subjects to sanctions (European Council, 2014e).

3 stage (July-December) sanctions were accepted on July 16 by the U.S. Government, and influenced key sectors of the Russian economy – financial, defense and energy sectors. In the sanctions list, there were companies of the Russian Defense Industrial Complex. Among them corporation “Almaz-Antey” and “Kalashnikov” Concern, “Izhmash”, “Basalt”, Ural Plant, company “Radio-Electronic Technologies”, “Novatek”, “Rosneft”, “Gazprombank”. On July 25 the USA refused to support projects of the World Bank in Russia (UNIAN, 2014). On July 29 ambassadors of EU Member States at meeting in Brussels made the decision on entering the third level of sanctions against the Russian Federation. These sanctions were directed against energy and financial sectors, products of military and dual purpose. Also, the release of Eurobonds by state banks and a share issued for the European owners were forbidden (European Council, 2014e).

On July 30, the U.S. Department of the Treasury introduces export restrictions of goods and technologies for the Russian oil projects (Schjodt, 2014). On September 8 the EU announced new sanctions according to which a ban on the organization of debt financing for three Russian fuel and energy companies was imposed: Rosneft, Transneft, Gazpromneft. The EU also limited loans for Sberbank, VTB, Gazprombank, VEB and Rosselkhozbank and also imposed a ban on the

organization of debt financing for largest Russian defense industries (European Council, 2014d).

On October 21, the Department of Trade and Commerce warned Russia about the cancellation of the trade agreement of 15-year which assumed duty-free import of the Russian steel. On December 18, Barack Obama signed the law accepted by the Senate and the U. S. Congress, on the status of Ukraine as ally of the USA and NATO, new sanctions against the Russian Federation and delivery of financial aids and military equipment to Ukraine. In the same day, the EU Council imposed additional sanctions in the form of a prohibition on investments, provision of services, including in the field of tourism and trade with the Crimea and Sevastopol (European council, 2014g).

Further, during 2015 - 2017 sanctions against the Russian Federation became tougher, lists of individuals, companies, economic industries under the action of sanctions increased rapidly, and most likely, will increase further. Number of countries joined imposition of sanctions increased as well. However, it should be noted, that nature and features of the sanctions imposed by the EU, the USA and other countries significantly differ and will be in more detail considered in further subsections.

2.2.1. Sanctions of the USA against Russia

The United States of America uses economic sanctions as the tool of the foreign policy rather actively. By the time of imposing anti-Russian sanctions the USA was already using sanctions regime against six countries - Côte d'Ivoire, DPRK, Iran, Syria and also Cuba and Myanmar (recently are considerably mitigated and/or cancelled). Besides, sanctions against separate legal entities and physical persons from the Balkan countries, Belarus, Zimbabwe, Iraq, Congo, Liberia and Sudan worked.

Stages of implementation of sanctions of the USA against Russia for 2014-2016 are displayed in appendix A.

In the bill No. 3364¹, which the House of Representatives of the U. S. Congress considered and supported on July 24, 2017, the previous sanctions against Russia continue to take part and new sanctions were introduced. In the document under the general heading "Countering America's Adversaries Through Sanctions Act" – three sections devoted to restrictive measures with respect to Iran, Russia Federation and North Korea. The section on the Russian Federation is entitled "Sanctions with respect to Russian Federation and combating terrorism and illicit financing". The bill toughens the existing sanctions imposed in connection with the aggression of Russia in Ukraine and introduces new – as a respond to cyber attack

¹ House of Representatives #3364 – "Countering America's Adversaries Through Sanctions Act", Introduced 07/24/2017, To provide congressional review and to counter aggression by the Governments of Iran, the Russian Federation, and North Korea, and for other purposes. source: <https://www.congress.gov/bills/115th-congress/house-bill/3364/text>

during elections in 2016 in which the US suspects Russian authorities, and on illegal actions in Syria.

The bill assumes that sanctions will be imposed against individuals and companies, which sell, lease or provide to Russia goods, services, technologies or information and also support of a construction of export pipelines, if its contracts have a market value from \$1 million. In addition, companies total sum of transactions of which will constitute \$5 million or more per year will also fall under sanctions. Agreements contain not only construction but also expansion, upgrade or repair of pipelines prohibitions under sanctions.

These measures, almost for certain, will affect a gas pipeline construction "Nord Stream – 2". The project is realized by the Russian "Gazprom" with the financial participation of the European companies. Project assumes transportation of Russian natural gas near the Baltic Sea bypassing Ukraine, Poland and the Baltic States.

The bill signals about the fact that the EU and the USA collateral actions concerning the anti-Russian sanctions and coordination of sanctions as a whole have become less intense. Supply of gas will become a problem for Europe, but not for the USA, the German Minister of Foreign Affairs Sigmar Gabriel and the chancellor of Austria Christian Kern said. At the same time, Germany will insist on the European sanctions against four citizens and the entities involved in deliveries of gas turbines produced by Siemens Company. Despite efforts on reducing dependence on import of energy carriers, about a third of natural gas of the EU still receives from the Russian Federation. Supply of gas from Russia to the European Union is rather stable since 2014, and the actual amount even increased, considering reduction of prices.

Sanctions will be applied to persons who will sign the contract with Federal Security Service (FSB) or with the entities of the defense sector of Russia, including Main Intelligence Directorate of the Russian Ministry of Defense. In the bill, it is specified that it concerns not only direct agreements but also those which are signed with the persons acting on behalf and/or the benefit of these security agencies. The document orders to inflict sanctions on the companies and persons who invest from \$10 million in privatization by officials of the Russian Federation, their relatives or employees of the Russian state assets. The Russian banks, which are under sanctions, according to the new bill, won't be able to obtain the credits for a term more than 14 days, and oil and gas companies – more than 30 days.

Thus, with a new bill the Congress suggests to make a number of amendments to the law on the support of territorial integrity and sovereignty of Ukraine adopted earlier, in particular, the right of the president registered there to impose sanctions in some cases is corrected to "obligation".

For counteraction, to the Russian influence, the Congress allocates \$250 million. This money is intended for the protection of critical infrastructure against cyber attacks in the countries of NATO and the EU and also the states which participate in an expansion of activities of NATO, including Albania, Bosnia and Herzegovina, Georgia, Macedonia, Moldova, Kosovo, Serbia and Ukraine. Funds are supposed to be allocated also for the fight against corruption, strengthening of independent judicial and public prosecutor's offices, overcoming the humanitarian crises caused by invasion and occupation.

2.2.2. Sanctions of the European Union

The European Union plays a key role in policy of the international sanctions against Russia on the ground that it has the greatest economic impact on Russian Federation and at the same time is the weakest link of system of sanctions. The EU is the most economically dependent on conditions of the relations with Russia, the economy of some member countries are very closely intertwined with the Russian – making it difficult to the unanimous decisions, which are necessary for imposition of sanctions.

The Russian Federation is the third largest trading partner of the EU, and for Russia the EU, in fact, is the largest partner. The countries of the European Union (before imposition of sanctions) imported from Russia of goods and services almost for 206 billion euros (including 160 billion euros - gas and oil).

In 2016 the EU several times prolonged restrictive measures against Russia. In July 2016 economic sanctions were extended for half a year until January 31, 2017, and in December for another six months till July 31, 2017. The sanctions package didn't undergo changes, terms of its action were only prolonged. In 2016 the following restrictive measures were imposed against Russia:

- concerning a number of the Russian physical persons and legal entities (a prohibition on entrance and freezing of accounts, blocking of financial transactions);
- the military cooperation is curtailed, including joint military trainings (supply of goods of military and dual purpose are stopped and the export regime concerning a number of the entities of the Russian military-industrial complex is toughened);
- concerning a number of sectors of the Russian economy (oil and gas, banking and financial sectors, investments, technology transfer).

The prohibition on investments in the infrastructure, transport, telecommunication, energy sectors and also oil, gas and minerals production is established. Supply of equipment for these sectors and providing financial and insurance services in like manner is forbidden. Furthermore, it is forbidden for the European financial institutions to issue credits or to purchase shares in projects, which are mentioned in sectoral sanctions. On July 31, the EU imposed sanctions against five state banks and obliged exporters to get the preliminary permission of member state authorities to export certain types of the energy equipment and technologies to Russia. A ban on deliveries to Russia of the high-technology equipment for oil extraction in the Arctic, on the deep-water shelf and shale oil was imposed.

Within the research, we will consider sanctions, which were imposed by the EU countries – the greatest trading partners – Germany, Great Britain.

1. Germany:

- on March 19, 2014, suspended accomplishment of the military contract with Russia worth 120 million euros.
- on March 21, stopped the export of defense products to Russia.
- on April 19, refused to participate in annual intergovernmental Russian-German consultations within "The St. Petersburg dialogue".

- on April 24, stopped the export of military products to Russia.
- on May 28, refused to a corvette of the Baltic Fleet of the Russian Federation "Boikiy" participation in the traditional sea festival "Kiel Week".
- on August 4, withdrew from the "Rheinmetall" company the permission for construction of the center of combat training for the Russian soldiers in the Mulino village.
- on January 15, 2016, the Ministry of Foreign Affairs of Germany refused to issue visa to the Minister of Agriculture of the Russian Federation Alexander Tkachyov for participation in the Green Week-2016 exhibition, which is annually taking place in Berlin. With respect thereto, the Russian delegation declared the impossibility of the participation in an exhibition.

2. Great Britain:

- on March 13, 2014, suspended a military cooperation with Russia, including prohibition of military goods delivery to Russia and cancelled the planned joint military training.
- on May 15, refused to participate in the IEF14th ministerial meeting of the International energy forum in Moscow.
- on July 13, excluded Russia from the list of the countries allowed to purchase the British aero products, and refused to issue visas to members of the Russian delegation which shall represent Russia at the Farnborough air show.
- on July 21, suspended all licenses for arms supplies, components of arms and products of dual purpose to Russia; cancelled all visits of military specialists and command; all visits of investment and economic delegations and completely froze all military cooperation with Russia.
- on July 28, refused to support cultural project "Year of Culture in Russia", all British ministers and officials were recalled from the meeting.
- on February 16, 2015, forbid Russia to participate in the worlds leading defense and security event DSEI-2015.

Thus, Great Britain joined all types of sanctions imposed since March 2014 and continues to approve the anti-Russian measures of diplomatic, political and economic nature with the EU and the countries of the G7 after suspension of membership of Russian Federation from his 'club'. It should be noted, that Britain took the strongest position on Russian issue among EU countries; was the leading country in developing restrictive measures trying to decrease the dependence of the European countries from Russian energy sector.

3. Economic impact of sanctions

3.1. Impact of sanctions of the economy of the Russian Federation

Today it is very difficult to imagine any state, which wouldn't have commercial ties with other states. Proceeding from all above in the previous chapter, it is possible to come to a conclusion that the sanctions imposed by EU countries and the USA exert an impact on economic relations of Russia with other countries in the worlds economy. Speaking about the influence of sanctions on the economy of Russian Federation, it is necessary to consider what is the degree of these interrelations.

First of all, we will analyze a general condition of the Russian economy from 1992 to 2016, considering such economic indicators as GDP, employment of the population in the economy, the number of the unemployed, the average monthly salary, the rate of inflation (Federal State Statistics Service, 2017).

TABLE 3.1 Indicators of a condition of the Russian economy from 1995 to 2016.

Year	Indicators						
	GDP, bn. RUB	GDP per capita, USD	Employment rate, thousand persons	Unemployment rate, thousand persons	Average mounthly nominal wage, RUB	Share of gross domestic Income, %	Inflation rate, %
1995	1428,5	2113,63	66346	6684	472,4	45	131,6
1996	2007,8	2641,77				48	21,8
1997	2342,5	2739,83				51,3	11
1998	2629,6	1837,54	58432	8902	1091,1	48,1	84,5
1999	4823,2	1333,61				40,1	36,6
2000	7305,6	1775,13	64517	7699,5	2223,4	40,2	20,1
2001	8943,6	2111,45		6423,7	3240,4	43	18,8
2002	10830,5	2380,18		5698,3	4360,3	46,6	15,06
2003	13208,2	2981,91		5933,5	5498,5	47,1	11,99
2004	17027,2	4111,10		5666	6739,5	46,1	11,74
2005	21609,8	5333,12	66683	5242	8554,9	43,8	10,91
2006	26917,2	6932,3	67047	5250	10633,9	44,5	9
2007	33247,5	9101,56	67922	4518,6	13593,4	46,7	11,87
2008	41276,8	11638,73	68397	4697	17290,1	47,4	13,28
2009	38807,2	8561,95	67418	6283	18637,5	52,6	8,8
2010	46308,5	10671,22	67493	5544,2	20952,2	49,6	8,78
2011	60282,5	13320,22	67644	4922,4	23369,2	49,5	6,1
2012	68163,9	14069,16	67968	4130,7	26628,9	50,4	6,58
2013	73133,9	14467,79	67901	4137,4	29792	51,9	6,45
2014	79199,7	12717,69	67813	3889,4	32495,4	39,2	11,36
2015	83232,6	8447,42	68389	4263,9	34029,5	37,8	12,9
2016	86043,6	8058,26	72065	4243,5	35232,8	36,2	5,4

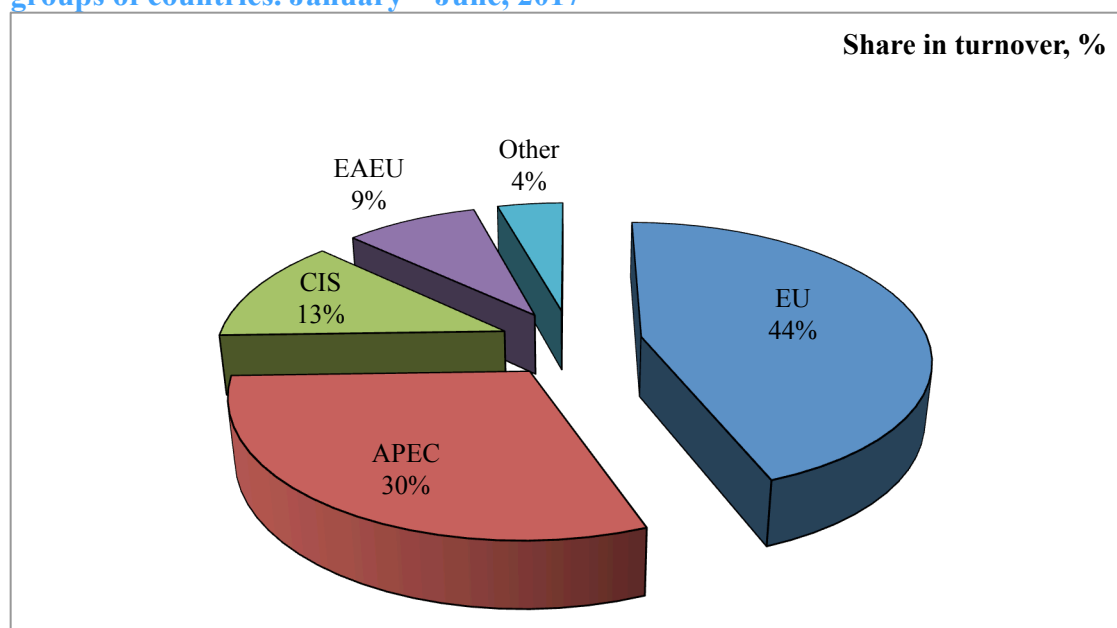
Proceeding from the data provided in Table 3.1 from 1995 to 2016 GDP and GDP per capita considerably grown. However, it is necessary to pay special attention for recession years, namely 1998 and 2009 when GDP growth decreased a little.). A small increase in the annual average population, occupied in the economy can be observed from 66346 thousand people in 1995 to 72065 thousand people in 2016. The largest growth is observed in a monthly average nominal wage which grew from 472,4 rubles in 1995 to 35232,8 rubles in 2016. Nevertheless, despite these indicators, the economy of the Russian Federation within the last five years is in stagnation and recession. And such situation developed even before imposition of sanctions. According to the Russian researchers Guskova and Shagalova (2014, p. 16) these are the reasons for such statement:

1. Short-term investments prevail over long-term that results in high volatility, a sharp liquidity reduction and general instability of the financial market.
2. Huge share of the Russian stock market belongs to foreign investors. (Almost 70%, according to Sberbank KIB). Stock markets might, therefore, experience a significant crash, twice as bad as in developed countries.
3. Low liquidity of banks.
4. Unresolved earlier economic problems, namely: primitive structure of economy; dependence on the imported raw materials; a discrepancy of production to real demand of the economy.

Thus, it is possible to draw a conclusion that even before imposition of sanctions the economy of the Russian Federation was not a subject to rapid economic growth and actually was in a condition of "stagnation". We will consider what has changed since the imposition of sanctions against Russia. First of all, we will look at a foreign trade turnover of the Russian Federation with other countries.

According to data from Russian Federal Customs Service (FCS), a total foreign trade turnover for January – June, 2017 with all countries of the world involved in trade with Russia constituted 268634 million USD, at the same time turnover with EU countries – 117830,8 mln. USD; with the countries of APEC – 80973,3 mln. USD; with the CIS countries – 33120,7 mln. USD; with the EEU countries – 23383,7 mln. USD. Thus, it is possible to come to a conclusion that the EU remains to be the main trading partner of the Russian Federation.

Figure 3.1. Structure of a business volume of the Russian Federation by groups of countries. January – June, 2017



EU – European Union; APEC - Asia-Pacific Economic Cooperation; CIS - The Commonwealth of Independent States; EAEU – Eurasian Economic Union.

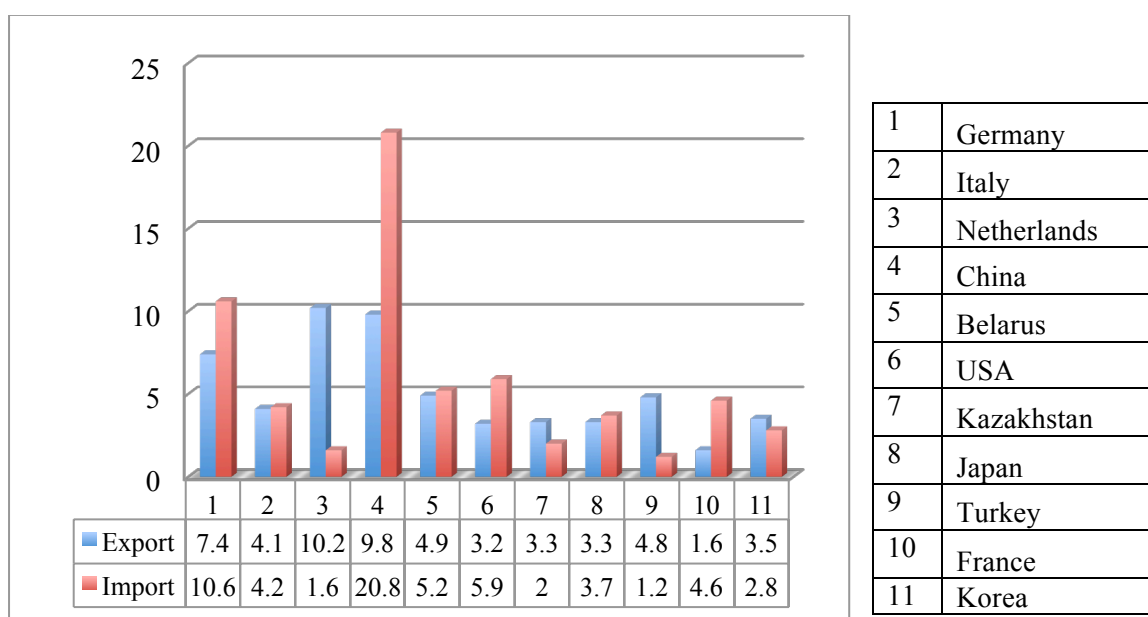
We will consider how the structure of a business volume of the Russian Federation with different groups of countries since the beginning of imposition of sanctions changed. First, it should be noted that the total foreign trade turnover of the Russian Federation considerably decreased in comparison with indicators which were before imposition of sanctions. So if from 2011 to 2013 the total foreign trade turnover of the Russian Federation gradually increased, in 2014 it dropped by 6,7% in comparison with 2013. That is explained by a considerable reduction of a business volume with EU countries - 9,4%, what as a result led to reduction in foreign currency earnings of Russian Federation and devaluation of ruble. In 2015 with toughening of sanctions the situation changed to worse and the external business volume decreased over all groups of countries. Thus, if in 2014 the total trade volume of Russian Federation constituted 784502, 8 million USD; already in 2015 it constituted 526261,5 million USD. That is 32,9% less, than in previous year. In 2016 the total business volume of Russia constituted 467941,1 million USD - 11,1% less than in 2015. According to Byrkova (2017), the main reason for such fall of this indicator is devaluation of the ruble as a consequence of drop in oil prices in January, 2016. Excess of offers in the oil market and low demand from China on “Brent” oil pushed its price lower than 30 US dollars for barrel. In this circumstances, Russian ruble exchange rate rose up to 78 rubles for 1 dollar.

Table 3.2. Structure of a business volume of the Russian Federation over groups of the countries from 2011 to 2016 (mln. dollars of the USA)

Year Groups of countries	2011	2012	2013	2014	2015	2016
CIS	124275,6	119749	112927,9	96789,5	66055,6	57272,9
EAEU	62378,7	62705,1	61156	56521,6	41589,8	39608,2
EU	394331,4	410563,5	416515,9	377538,6	235827,5	130666,9
OPEC	12596,3	12138,7	11948,7	10909,5	10222,6	12122,9
APEC	195934,3	200770,3	208323,2	211028,6	147787,3	190133,2
Other	32962	33606,6	30402,1	31715	24778,7	38137
Total	822478,3	839533,2	841273,8	784502,8	526261,5	467941,1

As long as the EU was and remains the most important trading partner of the Russian Federation, the decrease in a business volume with member countries will, most certain, be reflected in the economy of Russia. We will consider what countries are the main trading partners of the Russian Federation among EU countries and around the world. For this purpose, we will use such indicator as a share in the total amount of export and import (The Federal Customs Service, 2017).

Figure. 3.2. Main trading partners of Russia, share the total amount of import and export in 2016, in%.



Thus, the main trading partners of the Russian Federation among EU countries are Germany, Italy, France and the Netherlands, which at the same time are one of the largest and influential countries of association. The greatest share in import constitute China – 20,8%, Germany – 10,6%, the USA – 5,9%, Belarus – 5,2%, and in export: The Netherlands – 10,2%, China – 9,8%, Germany – 7,4%, Belarus – 4,9%.

Also, the commodity structure of Russian foreign trade, which is provided in Table 3.3, represents special interest. Proceeding from these data it is possible to come to a conclusion that mineral products (67,3% in 2015 and 63% in 2016) and fuel and energy resources are the most exported (66,5% in 2015 and 62,1% in 2016 respectively). The largest part of imports to Russia belongs to machinery and equipment, vehicles, transport equipment (48% in 2015 and 50,1% in 2016) and to products of the chemical industry and rubber (on 19,1% in 2015 and 2016).

Table 3.3. Commodity structure of export and import of the Russian Federation for 2015 - 2016.

Name of a commodity group	Export				Import			
	2015		2016		2015		2016	
	Price of export, in mln. USD	% share of total volume	Price of export, in mln. USD	% share of total volume	Price of export, in mln. USD	% share of total volume	Price of export, in mln. USD	% share of total volume
Total	298 419,8	100,0	247 943,7	100,0	161692,7	100,0	162 724,5	100,0
Food products and agricultural raw materials (except textile)	11 951,8	4,0	12 873,1	5,2	22 213,7	13,7	20 428,5	12,6
Mineral products	200 772,7	67,3	156 238,2	63,0	1 514,0	0,9	1 290,1	0,8
Fuel and Energy resources	198 399,8	66,5	153 926,8	62,1	861,3	0,5	777,2	0,5
Chemicals and chemical products, rubber	19 335,0	6,5	14 975,3	6,0	30 847,3	19,1	31 041,4	19,1
Leather, furs and products from them	260,1	0,1	204,6	0,1	791,5	0,5	782,4	0,5
Wood and products of wood, paper products, pulp	8 117,9	2,7	8 140,2	3,3	2 938,9	1,8	2 782,9	1,7
Textiles, textile products, footwear	240,3	0,1	246,3	0,1	9 652,9	6,0	9 465,6	5,8
Precious metals and stones, goods from them	7 694,4	2,6	8 688,0	3,5	328,9	0,2	303,5	0,2
Basic Metals and metal goods	27 973,2	9,4	24 385,3	9,8	9 109,2	5,6	8 713,1	5,4

Machinery and equipment, vehicles, transport equip.	18 021,2	6,0	18 037,7	7,3	77 604,2	48,0	81 557,0	50,1
Other Goods	4 053,2	1,3	4 155,0	1,7	6 692,1	4,2	6 360,0	3,8

If we analyze sectoral structure of sanctions against the Russian Federation, then it is possible to detect that economic sanctions are directed against key industries of the Russian economy: oil, gas, nuclear and military industry and also against the Russian banking sector.

The world's oil market and oil production in its majority is controlled by the American and British multinational companies: ExxonMobil, Shell, BP, Chevron, ConocoPhillips. Since 2007 amounts of internal oil production has grown in the USA: from 8316 thousand barrels per day in 2006 up to 12304 thousand barrels in 2014, growth of production almost by 48% (US Energy Information Administration, 2014). Thereby, demand for oil import decreased, and the second largest consumer of oil in the world – the European Union which for 90% depends on oil imports. American and British companies can satisfy such demand, however, they face the growing expansion of the Russian oil companies, which already provide one third of an oil supply to Europe.

For this reason, economic sanctions of the West against the Russian Federation concern oil companies, their affiliated enterprises and the auxiliary companies of this industry, establish an export ban of oil production and oil processing technologies, cancel joint projects in the oil sector and investments into perspective projects (Artyomova E.I., p. 99).

Speaking about the gas industry, here sanctions are less tough. This results from the fact that at this stage there are problems with supply of shale gas from the USA to Europe as it requires considerable means and time for the equipment of receiving port, creation of the tanker fleet, etc. Moreover, the cost of shale gas is much more expensive than Russian pipeline gas.

The global financial crisis allowed Russia, thanks to currency holdings and capitalization of banks, to perform expansion on the foreign financial markets. In 2010 in the USA new Foreign Account Tax Compliance Act was accepted. Since July 1, 2014, non-American banks undertake to provide all necessary information on the clients who fall under determination "the taxpayer of the USA" in tax administration of the USA (Mezenin S., 2014, p. 4).

Imposition of sanctions against the Russian banks expanded tools for squeezing Russian companies out from the foreign markets, and first of all – from European. Thus, vectors of sanctions against the Russian Federation in the bank sphere include freezing of the Russian financial assets of physical persons and legal entities, disconnection of the Russian bank structures from international payment systems, restrictions on access to investment projects, restriction of access to external credits, etc.

The analysis of sanctions shows that they are directed to the restriction of a presence of the Russian state-owned and non-state companies in various segments of

the worlds and, especially, European market, share of which is nearly a half of a foreign trade turnover of the Russian Federation.

3.2. Economic expenses of the EU in connection with imposition of sanctions

The European Union plays a key role in the policy of the international sanctions against Russia as it at the same time has the greatest economic impact on Russia. In total, the amount of bilateral trade in 2013 reached 326 billion euros - that is at the level of GDP of such countries as Austria or Denmark. At the beginning of 2013 nearly 75% of the EU foreign direct investments (more than 190 billion euros) from the EU were into Russia.

The European Union (EU) is the leading trading partner of Russia, 44,8% of all Russian trade turnover is the share of EU countries. However, since 2013 indicators of a trade surplus reached negative values. Already in 2015 turnover constituted 209,5 billion euros and was reduced by 26,7% in comparison with 2014; Russian export – 135,6 billion euros (-25,7%), Russian import - 73,9 billion euros (-28,4%). The structure of trade didn't undergo serious changes, as mentioned previously.(Eurostatistics, 2014).

Table 3.4. EU Russian bilateral trade 2005-2015. (in bn.euro, Eurostatistics)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Turnover	170,67	215,09	236,06	285,42	185,27	248,39	309,92	338,52	326,28	285,50	209,5
Export to the EU	113,98	142,69	146,86	180,45	119,57	162,08	201,33	215,12	206,49	182,03	135,6
Import from the EU	56,69	72,40	89,20	104,97	65,70	86,31	108,59	123,40	119,79	103,48	73,9
Balance (saldo)	57,29	70,29	57,66	75,48	53,87	75,77	92,74	91,72	86,70	78,55	61,7

In turn, Russia invested 77 billion euros in EU countries. However, in the total amount of the direct foreign investments accumulated by EU countries the Russian share constituted only 2%, and in a total amount of the investments performed abroad - less than 4%.

The most powerful commercial relations Russia has built with Germany (75 billion euros), the Netherlands (37 billion euros), Italy (30 billion euros) and Poland (26 billion euros) (Eurostatistics, 2017). That is to say, the cooperation with Russia is valuable for the European economy (especially trade), but has no crucial importance.

Table 3.5. Dependence of the EU countries on export to Russian Federation, bn. USD (Eurostatistics, 2017)

Country	Export to Russian Federation, bn USD	Export to Russian Federation, GDP share (%)
Slovakia	3,53	3,60
Estonia	0,79	3,20
Slovenia	1,43	3,00
Latvia	0,8	2,60
Lithuania	1,12	2,40
Hungary	3,01	2,30
Czech Republic	5,32	2,50
Finland	5,41	2,00
Poland	8,33	1,60
Bulgaria	0,7	1,30
Romania	2,05	1,10
Germany	37,92	1,00
Austria	3,85	0,90
Belgium	4,03	0,80
Italy	14,55	0,70
Netherlands	5,85	0,70
Croatia	0,39	0,70
France	13,01	0,50
Great Britain	8,11	0,30
EU - total	134,27	0,70

The economy of the European countries can suffer from the sanctions regime for two main reasons: first, owing to a prohibition of selling technologies of "dual purpose" for development and exploration of oil and gas fields; secondly, fall of Russian ruble has negative effect on purchasing power of Russian citizens and reduces demand for import of products.

As a result, except Russian main trading partners mentioned above in the EU the sanction considerably influenced economy of Austria, Lithuania and Czech Republic. Moreover, Russian import ban of food products from the countries of the West negatively affected export to Russia of such products from the EU (5 bn. Euros loss in total), including from Lithuania (1 bn. euros) and also Poland, Finland, Greece and Spain. According to experts from ING investment bank similar appearance have estimates on probable loss of workplaces (Table 3.6).

Table 3.6. Influence of the Russian self-sanctions for production and employment of the certain countries (Eurostatistics, 2017)

Country	Loss of value added	Loss of workplaces
---------	---------------------	--------------------

	mln. USD	% GDP	Thousand places	% to a total quantity
Poland	429	0,10	23	0,14
Germany	1250	0,04	21	0,05
USA	1278	0,04	12	0,01
France	869	0,03	11	0,04
Spain	626	0,05	10	0,05
Italy	591	0,03	9	0,04
Great Britain	415	0,02	6	0,02
Lithuania	154	0,40	5	0,42
Finland	273	0,12	3	0,13
Belgium	220	0,05	3	0,06
Estonia	68	0,35	2	0,39
Latvia	52	0,20	2	0,25
Austria	114	0,03	2	0,04
EU - total	34290,0	0,04	130	0,06

As of 2014 commodity export from the EU to Russian Federation was reduced by 23 bn. USD. At the same time, export to other countries increased by 184 bn.USD. Substantially export growth of the EU can be explained with more intensive trade within the EU.

Internal export of the EU grew by 238 bn. USD. In addition, there was export growth to the EU main trading partners - the USA and China by 23 bn. USD and 21 bn. USD respectively. Concurrently, EU export to Switzerland was reduced by 41 bn. USD. Also, there was a reduction of export by 9 bn. USD to Ukraine and by 4 bn. USD to Australia, Turkey and Brazil (Eurostatistics, 2015).

Table 3.7. Consequences of sanctions for separate industries of EU countries

Industry	Business with Russia			Consequences of sanctions			
	Export to Russian Federation / Share of export and income	Activity in RF/ Number of occupied, investments	Importance	Directly targeted Sanctions	Indirect Sanctions	Strategic risk	Extent of influence
Agriculture / food	2,8% 1,5 bn. EUR	+1400 mln.Eur	*	Import prohibition	Loss in income, risk of fall of prices	Risk of losing market positions in favor of competitors	***
Chemicals	3,3% 5,2 bn. EUR	Approx. 7000, 1,2 bn.EUR	**		Loss in income		*
Pharmaceutical	3,4% 2,1 bn. EUR	More than 2.500	**		Loss in income		*
Automotive	4,0% 7,6 bn. EUR	More than 10.000 1,6 bn.EUR	***		Loss in income	Risk of Import restrictions	*

Machinery and equipment	5,3% 7,8 bn. EUR	628 mln.EUR	***	Restrictions for dual-use goods	Loss in income		***
Telecommunications	3,5% 1,0 bn. EUR	N/A	**	Restrictions for dual-use goods	Loss in income		**
Construction	0,2% 55 mln. EUR	More than 3.500	*				*
Trading	N/A	More than 30.000	**		Problems with supply network		*
Production of consumer goods	Approx. 4%	More than 15.000	**		Loss in income		*
Financial Service	Less than 1%, 16,8 bn. EUR	Approx. 2,1 bn.EUR	*		Termination of operations with Russian banks		*
Defense	Approx. 1%, 38,2 mln. EUR	More than 1.000	*	Embargo on arms supply	Loss in income		*
Transport/Logistics	Approx. 1%	More than 5.000	**		Freight reduction	Risk of a prohibition for the western airlines	*
Energy	No Export, but essential import - 29,3 bn. EUR	More than 5.000	**** (Import and strategic investments)			Risk of fall of strategic investments price value	*

In the EU commodity structure of exports to Russia, there was a reduction in all industries. Reducing export of vehicles by 7 bn. USD created 30% of general export reduction. Exports of machinery and equipment, heavy industry, agricultural goods and goods of the chemical industry have also significantly shrunk.

Despite the popular statements regarding restriction of access to the Russian market of food from the EU, export reduction of this group was the smallest and in fact was less than 1% of total reduction (Artyomova E.I., p. 101). Diminution in export of vehicles, machinery and equipment to Russia had no significant effect; export of these sectors to other countries of the world grew by 52 bn. dollars and 94 bn. dollars respectively.

The greatest fall happened in the structure of vehicles export. Export of cars from the EU to Russia was reduced by 3,3 bn. USD and export of parts and car bodies for them decreased by 1,8 bn. dollars. Likewise, there was a reduction in export of trucks (by 0,6 bn. dollars). Reduction in export of vehicles to Russia was fully eliminated by an increase in exports to domestic markets of the EU (by 23,8 bn. USD), to China (by 5 bn. dollars), the USA (by 2,4 bn. USD) and South Korea (by 2 bn. USD). Besides, there was an increase in exports of trucks to Singapore, South Korea, Egypt and Switzerland (by 133,1 bn., 110,8 bn., 105,2 bn. and 88,7 bn. USD respectively).

Export of meat and meat sub products from the EU to Russian Federation was reduced by 82% (almost by 1,8 bn. USD). First of all, this cut was created by the reduction in pork supply (by 1,3 bn. USD) and pork fat (by 0,3 bn. dollars). Partially, these losses were offset due to export growth of pork to Japan by 359 mln. USD, South Korea by 345 mln. USD and the USA by 110 mln. USD. In general, export of pork from the EU abroad, except for to Russian Federation, grew almost by 1,1 bn. USD.

According to expert evaluations of various sources in the beginning of 2015, as a result of the imposition of sanctions against Russia and Russian "self-sanctions" the greatest damage (more than 20 billion euros) was done to the European member states. In particular, losses of Germany are estimated at 7 billion euros, out of which 5 billion euros - in the agricultural industry and about 1,5 billion euros - in an automotive industry.

In the list of EU trading partners in 2015 Russia for the first time lost its third place. The place was taken by Switzerland with which turnover constituted 253 billion euros². The first and the second places among the EU partners belong to the USA and China: with them the European Union trade volume reached 619 billion euros and €521 billion respectively. Russian exports to Europe almost twice exceeding its import from the EU: €135,7 billion against €73,9 billion respectively.

Latvia was the only EU country which priority-trading partner remained to be Russia. For Latvia, Russia is on the second place by export volumes. Many European countries are interested in Russian goods: Moscow has a great importance for importers from Bulgaria, Greece, Poland and Finland. Because of the existing sanctions the vector of development of the foreign trade relations gradually changes, and Russia more and more "Turns to the east". While the share of EU countries in the structure of foreign trade was reduced for last year from 46,8% to 43,1%, the share of the countries of APEC grew from 27,5% to 29,1%. Trade turnover between Russia and China, for instance, remarkably increased - by 25,5 % in the first half of the current year. At the end of 2016, this indicator grew by 2.2 percent in annual terms to reach 69.52 bn. USD³ (China Briefing, 2017).

Mainly owing to decline in agricultural products to Russia suffered losses also of the Baltic State (more than 2 billion euros, from them Lithuania - to a half), France (1 billion euros), Italy (1,3 billion euros) and Poland (0,9 billion euros). Total loss of the EU agricultural industry reached 14-15 billion euros. The European Commission allocated funds in the amount of 125 million euros for compensation of producers loss, victims of self-sanctions applied by Russia. Though, it is clear that potentially negative effect might be much stronger. It seems that in terms of amount of money the biggest damage is taking Germany, in the form of loss of workplaces - Poland, in terms of own GDP share - the Baltic States. Therefore, considering political factors, one may say, that German-Russian relations will determine the key value for the European policy of sanctions against Russia.

In 2013 Germany exported to the Russian Federation food and agro-industrial products for 16 billion euros, including - for 0,6 billion euros products which next year got under Russian "self-sanctions" (mainly, pork and cheeses). According to

² Швейцария обогнала Россию среди торговых партнеров Евросоюза [Электронный ресурс] Режим доступа: <http://www.rbc.ru/economics/01/04/2016/56fe4e839a7947a4d81038d1>

³ China-Russia Bilateral Trade is World's Fastest Growing Opportunity Corridor. Dezan Shira & Associates. <http://www.china-briefing.com/news/2017/08/30/china-russia-bilateral-trade-is-worlds-fastest-growing-opportunity-corridor.html>

East committee of the German economy (Der Ost-Ausschuss der Deutschen Wirtschaft), the goods turnover between Russia and Germany in 2014 decreased by 12,1% (to 68 billion euros). At the same time, the German export to the Russian Federation dropped by 18%: from 35,8 to 29,3 billion euros.

According to federal state statistics service, the goods turnover of Germany with Russia in 2016 constituted 53,1 bn. dollars and decreased in comparison with 2015 by 7,4%. German export to the Russian Federation constituted 23,9 bn. USD (decrease by 0,4%), imports from Russia constituted - 29,2 bln. USD (decrease by 12,4%). Among the federal lands of Germany, the main trading partner for the Russian Federation has become, as well as last year, Bavaria. Its share in the structure of a total turnover with the Russian Federation made 15,8%. The goods turnover of the Russian Federation with Bavaria during the specified period constituted 7615,0 million euros, that is 10,1% lower than indicators of the previous year. At the same time export of Bavaria to Russia constituted 2 615,8 million euros (+4,0%), and import - 4 999,2 million euros (-16,1%). The negative balance for Bavaria region - 2 383,4 million euros.

In the structure of industrial cooperation between Russian Federation and Germany essential changes concerned several key industries. Thus, in the structure of import from Russian Federation the following industries observed the greatest decrease in volume:

- the oil and gas industry (-3213,0 mln. USD or -15,1% in comparison with the same period of 2015);
- chemical industry (-540,0 mln. USD or -41,4%);
- metal industry (-343,0 mln. USD or -9,8%).

At the same time, significant increase in Russian exports to Germany was noted in industries:

- rubber and plastic industry (+72,0 mln. USD or +54,9%);
- production of manufactured goods (+56,0 mln. USD or +19,1%);
- mining industry (+46,0 mln. USD or +133,7%).

Concerning deliveries from Germany the following dynamics was observed:

- manufactured goods (-311,0 mln. USD or -18,9%);
- automotive industry (-159,0 mln. USD or -3,0%);
- metal industry (-62,0 mln. USD or -15,6%);
- clothing industry (-48,0 mln. USD or -9,3%);
- production of other vehicles (+351,0 mln. USD or +105,4%);
- pharmaceutical industry (+61,0 mln. USD or +3,7%);
- tobacco industry (+30,0 mln. USD or +105,9%).

The carried-out analysis leads to a conclusion that, from the point of view of the influence of the sanctions package against Russian Federation on own economy and the attitude towards the need of extension of the sanction regime, it is possible to divide the EU countries into three groups conditionally:

1) Countries, undergone a considerable negative impact from sanctions (or can undergo in case of extension of sanctions), but support a strong position concerning their further use (Germany, the Baltic States, Poland, Great Britain, etc.);

2) Countries which bear noticeable losses and incline to ease sanctions (Italy, Spain, Slovakia, Hungary, to some extent - France);

3) Countries which received insignificant losses, but for political reasons support easing of sanctions (Greece, Bulgaria, Cyprus).

Economic sanctions coincided with lower oil prices, making it difficult to disentangle the effects of one from the other. Nevertheless, several attempts have been made to quantify the overall economic impact of sanctions:

- in January 2016, Deputy Economic Development Minister Alexei Likhachev evaluated Russian loss in 2015 from EU sanctions and Russian countersanctions at 25 billion euro. (around 2% of GDP);
- according to Ukrainian news channel “Channel24”, Russian economy bear losses in amount of 55 billion USD;
- the Wall Street Journal, an unpublished European Commission study estimated that sanctions would cost Russia 0.6% of its GDP in 2014, and 1.1% in 2015. The same report put the impact on the EU economy at 0.2% and 0.3% respectively.
- according to Russian experts (A.A. Shirov, A.A. Yantovskiy, V.V. Potapenko, 2015) the potential adverse impact of sanctions on the Russian economy is estimated at 8-10% of GDP and that on the EU economy at some 0.5% of GDP.

Thus, it is possible to deduce that impact of sanctions on Russian are much more indicative and harmful for the economy. In contrast, for the whole EU economy the impact is rather trivial, however, each member state separately appears to be more sensitive and vulnerable to economic disturbances.

4. Econometric analysis

4.1. Data

Formation of the database for calculation is a essential for the creation of vector autoregression model. Many organizations offer a wide range of statistical data on trade and macroeconomic indices. For carrying out calculations for this vector autoregression model from the following sources were selected.

Main data for calculation of model, namely: GDP, export, import, consumer price index, Interest rate on newly issued loans in national currency, nominal exchange rate were taken from Federal State Statistics Service of the Russian Federation for 1995-2016.

The volume of export and import of the country with the countries of the European Union were taken from the webpages of Statistical service of the European Union (Eurostat⁴), from The World Factbook⁵, CIA.

Table 4.1. List of variables

Designation	Discription	Source
oil _t	Oil price (Urals), USD/Barrel	Federal State Statistics Service (Rosstat)
gdp ru _t	Russian GDP, bn. RUB	Federal State Statistics Service (Rosstat)
ner_ru _t	Exchange rate RUB/USD	Federal State Statistics Service (Rosstat)
m3 _t	Monetary aggregate M3, at current prices, bn. RUB	Federal State Statistics Service (Rosstat)
rate _t	Interest rate on newly issued loans in national currency, in %	Federal State Statistics Service (Rosstat)
neer _t	Nominal effective exchange rate (NEER)	Federal State Statistics Service (Rosstat)
demand _t	Domestic demand, bn. RUB	Federal State Statistics Service (Rosstat)
exp _t	Export, bn. RUB	Eurostat database; The World Fact Book, Central Intelligence Agency

⁴ Eurostat is the statistical office of the European Union situated in Luxembourg. Its mission is to provide high quality statistics for Europe. Looking for ways to continually improve its products and services, Eurostat gained the European Foundation for Quality Management "Committed to Excellence" recognition in November 2016. Providing the European Union with statistics at European level that enable comparisons between countries and regions is a key task. <http://ec.europa.eu/eurostat/>

⁵ The World Factbook by Central Intelligence Agency provides information on the history, people, government, economy, geography, communications, transportation, military, and transnational issues for 267 world entities. Our Reference tab includes: maps of the major world regions, as well as Flags of the World, a Physical Map of the World, a Political Map of the World, a World Oceans map, and a Standard Time Zones of the World map.

imp_t	Import, bn. RUB	Eurostat database; The World Fact Book, Central Intelligence Agency
gdp_t	GDP, bn. RUB	Federal State Statistics Service (Rosstat)
Cpi_t	Consumer price index (CPI)	Federal State Statistics Service (Rosstat)

4.2. Structural vectorial autoregression model

For the purpose to reflect the functioning of four main channels of the transmission mechanism (monetary channel; channel of an interest rate; credit channel; channel of an exchange rate) 11 macroeconomic variables were included in the evaluated model. (Table 4.2)

Table 4.2. Description of variables of model

Variable type	Designation	Discription
Exogenous	oil_t	Oil price (Urals), USD/barrel
	gdp_{ru_t}	Russian GDP, bn. RUB
	ner_{ru_t}	Exchange rate RUB/USD
Endogenous	$m3_t$	Monetary aggregate M3, at current prices, bn. RUB
	$rate_t$	Interest rate on newly issued loans in national currency, in %
	$neer_t$	Real effective exchange rate (REER)
	$demand_t$	Domestic demand, bn. RUB
	exp_t	Export, bn. RUB
	imp_t	Import, bn. RUB
	gd_t	Gold and foreign currency reserves, bn. RUB
	Cpi_t	Consumer price index (CPI)

Apparently from the table, the structure of the simulated SVAR along with endogenous variables reflecting dynamics of economic indices in different sectors of economy including the variables of the Russian economy which are exogenous for the considered system and characterizing the impact of sanctions on a macroeconomic situation within the country.

The model will have the following equation:

$$X_t = \alpha_0 \text{ oil}_t + \alpha_1 \text{ gdp_rut} + \alpha_2 \text{ gdp_rut} + \alpha_3 \text{ ner_rut} + \alpha_4 \text{ m3_t} + \alpha_5 \text{ rate_t} + \alpha_6 \text{ neer_t} + \alpha_7 \text{ demand_t} + \alpha_8 \text{ exp_t} + \alpha_9 \text{ imp_t} + \alpha_{10} \text{ gdp_t} + \alpha_{11} \text{ Cpi_t} + \varepsilon_t$$

In order to determine coefficients $\alpha_0 \dots \alpha_{11}$, regression analysis was carried out using Excel – Microsoft office (the example of calculation of coefficient α_1 is shown in Appendix B).

4.3. Description of results

For assessment of SVAR model it is necessary to specify contemporaneous covariances of analyzable macroeconomic variables that will allow to evaluate ratio $Au_t = Be_t$. Statistically, this procedure results in non-correlated shocks. From the economic point of view, shocks become structural (i.e. shocks acquire an economic sense). Thus, determination of a ratio $Au_t = Be_t$, in particular, A matrixes, means that a certain macroeconomic shock causes response from a row of economic indices in the same time point “t”. There are several methods of determination of contemporaneous correlations:

- 1) according to the economic theory and an expert judgment (Kim S., p. 561);
- 2) on the basis of the statistical procedure based on creation of the oriented acyclic graph (Demidenko, M.V., page 82).

To apply the second of the offered approaches, the first step is to build up covariance matrix of the given VAR is calculated. Further, the calculated matrix is used in the course of creation of the oriented acyclic graph. The final graph reflects the existing correlations and the directions of relation between variables (Pelipas, I., p.19).

The offered approach consisted of testing restrictions, corresponding to Cholesky⁶ diagram, and deleting statistically insignificant ones, which could create disruption in responses of macro-variables to monetary shocks. The considered variables were sorted by acceleration and located in accordance with a level of an endogeneity. While ordering variables in such way, the rule of monetary policy – monetary targeting was considered.

The triangular matrix of restrictions (A) had an appearance:

⁶ André-Louis Cholesky (1875-1918, Bagneux) was a French military officer and mathematician. The method of Cholesky (square root method) has a number of valuable qualities that allow one to prefer it to the Gauss method if it is required to solve a system of linear algebraic equations with a symmetric and positive definite matrix. (Amosov A.A., Dubinsky Y.A., Kopchenova N.V. "Computing methods for engineers" Moscow., 1994. — p.156)

$$\begin{pmatrix}
1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
a_{21} & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\
a_{31} & a_{32} & 1 & 0 & 0 & 0 & 0 & 0 \\
a_{41} & a_{42} & a_{43} & 1 & 0 & 0 & 0 & 0 \\
a_{51} & a_{52} & a_{53} & a_{54} & 1 & 0 & 0 & 0 \\
a_{61} & a_{62} & a_{63} & a_{64} & a_{65} & 1 & 0 & 0 \\
a_{71} & a_{72} & a_{73} & a_{74} & a_{75} & a_{76} & 1 & 0 \\
a_{81} & a_{82} & a_{83} & a_{84} & a_{85} & a_{86} & a_{87} & 1
\end{pmatrix}
\begin{pmatrix}
u_t^{m3} \\
u_t^{rate} \\
u_t^{neer} \\
u_t^{demand} \\
u_t^{exp} \\
u_t^{imp} \\
u_t^{gdp} \\
u_t^{cpi}
\end{pmatrix} =$$

$$=
\begin{pmatrix}
b_{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
0 & b_{22} & 0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & b_{33} & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & b_{44} & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & b_{55} & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & b_{66} & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & b_{77} & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & b_{88}
\end{pmatrix}
\begin{pmatrix}
e_t^{m3} \\
e_t^{rate} \\
e_t^{neer} \\
e_t^{demand} \\
e_t^{exp} \\
e_t^{imp} \\
e_t^{gdp} \\
e_t^{cpi}
\end{pmatrix}$$

Each of the restrictions introduced in this way was possible tested on the statistical significance, than to remove insignificant.

The final matrix of restrictions looks as follows:

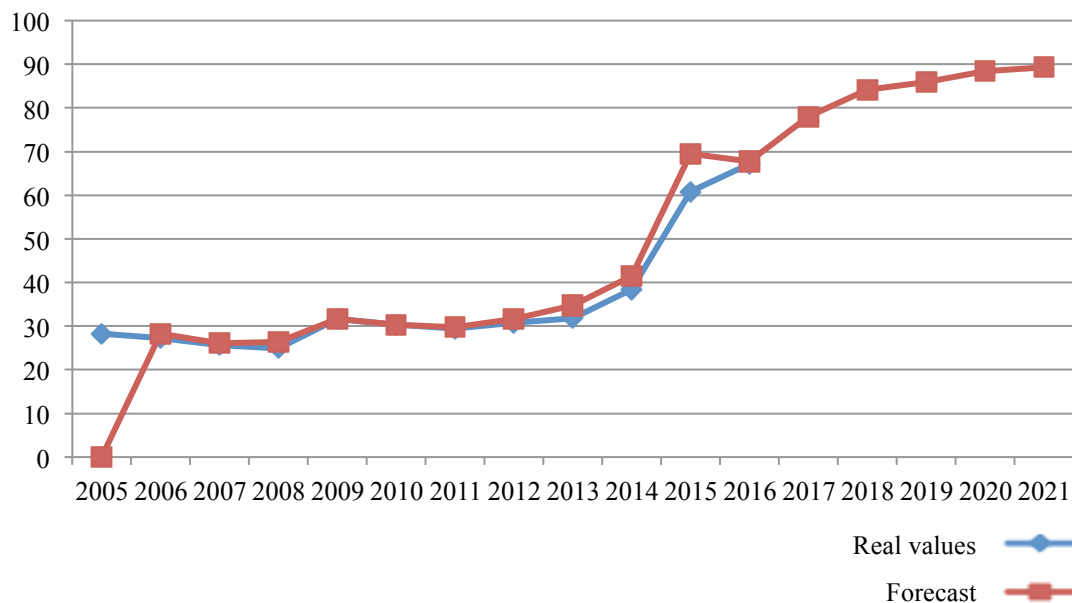
$$\begin{pmatrix}
1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
0 & 1 & a_{23} & 0 & 0 & 0 & 0 & 0 \\
a_{31} & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\
0 & a_{42} & 0 & 1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\
0 & 0 & a_{63} & a_{64} & a_{65} & 1 & 0 & 0 \\
a_{71} & 0 & a_{73} & a_{74} & a_{75} & 0 & 1 & 0 \\
a_{81} & a_{82} & a_{83} & 0 & 0 & 0 & 0 & 1
\end{pmatrix}
\begin{pmatrix}
u_t^{m3} \\
u_t^{rate} \\
u_t^{neer} \\
u_t^{demand} \\
u_t^{exp} \\
u_t^{imp} \\
u_t^{gdp} \\
u_t^{cpi}
\end{pmatrix} =$$

$$=
\begin{pmatrix}
b_{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
0 & b_{22} & 0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & b_{33} & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & b_{44} & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & b_{55} & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & b_{66} & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & b_{77} & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & b_{88}
\end{pmatrix}
\begin{pmatrix}
e_t^{m3} \\
e_t^{rate} \\
e_t^{neer} \\
e_t^{demand} \\
e_t^{exp} \\
e_t^{imp} \\
e_t^{gdp} \\
e_t^{cpi}
\end{pmatrix}$$

Due to the reason that the presented structural vector autoregression is overidentified, the imposed restrictions for contemporaneous correlations were tested. According to the results of the carried-out LR test, the chosen strategy of identification isn't rejected at 5% significance level. So, the p-value χ^2 - statistics was 0,393. At the same time all estimated elements of a matrix – are statistically significant.

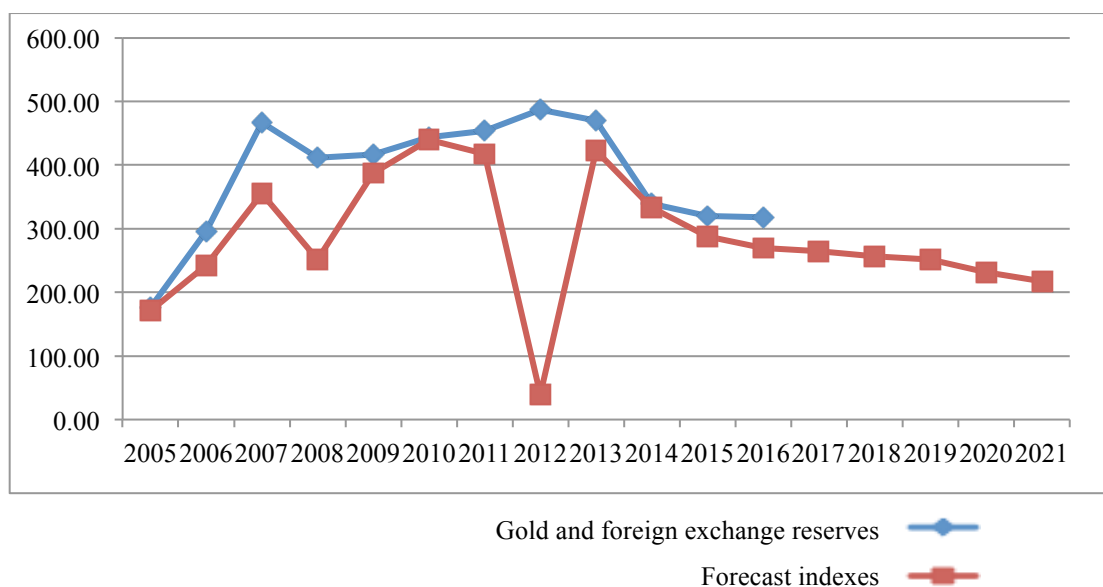
SVAR model assessment on empirical data of Russia in which restrictions on contemporaneous correlations are imposed according to the model has allowed receiving the following results.

Figure 4.1. Functions of SVAR model on empirical data of Russia of an exchange rate (depreciation of the Russian currency)



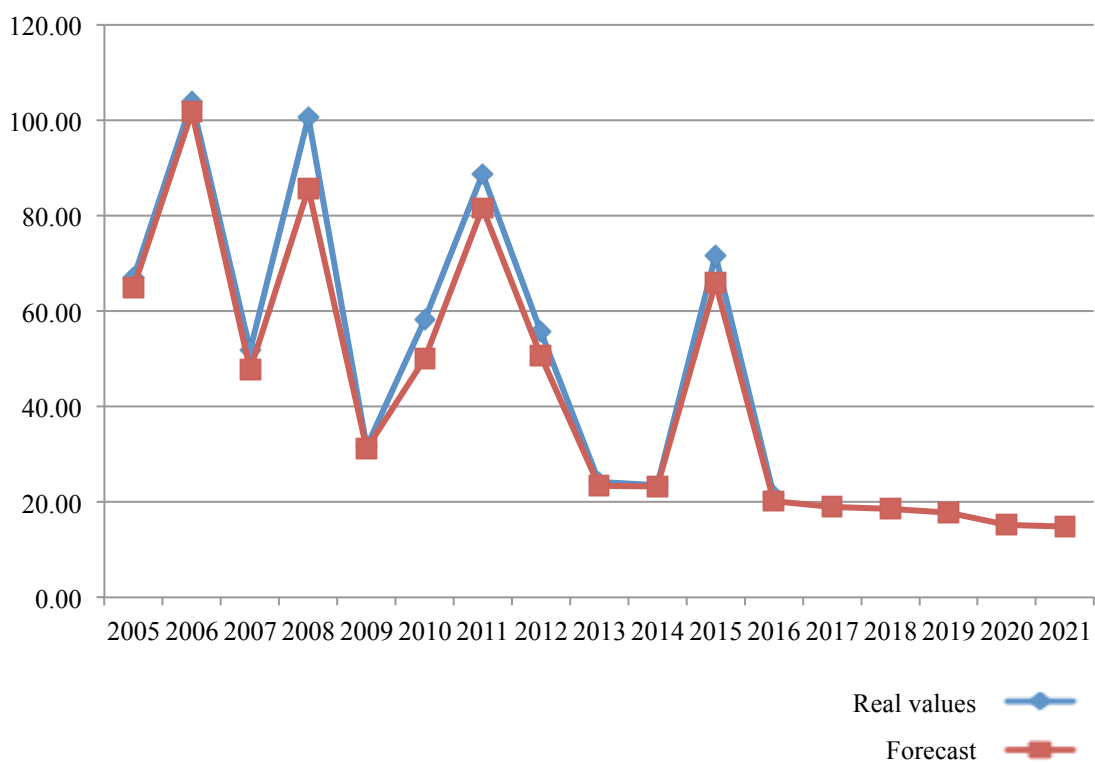
From of the figure 4.1 we can draw a conclusion that in 2006-2014 the deviation of the predicted results from real values are from 3% to 4%. In 2014-2015 the deviation of expected values constituted 8% and 14% respectively. Such divergence in results was caused, first of all, by the fact that in model the sanctions imposed on Russia are not considered.

Figure 4.2. Functions of SVAR model on empirical data of Russia. Gold and foreign exchange reserves (reduction of gold and exchange reserves), in billions USD.



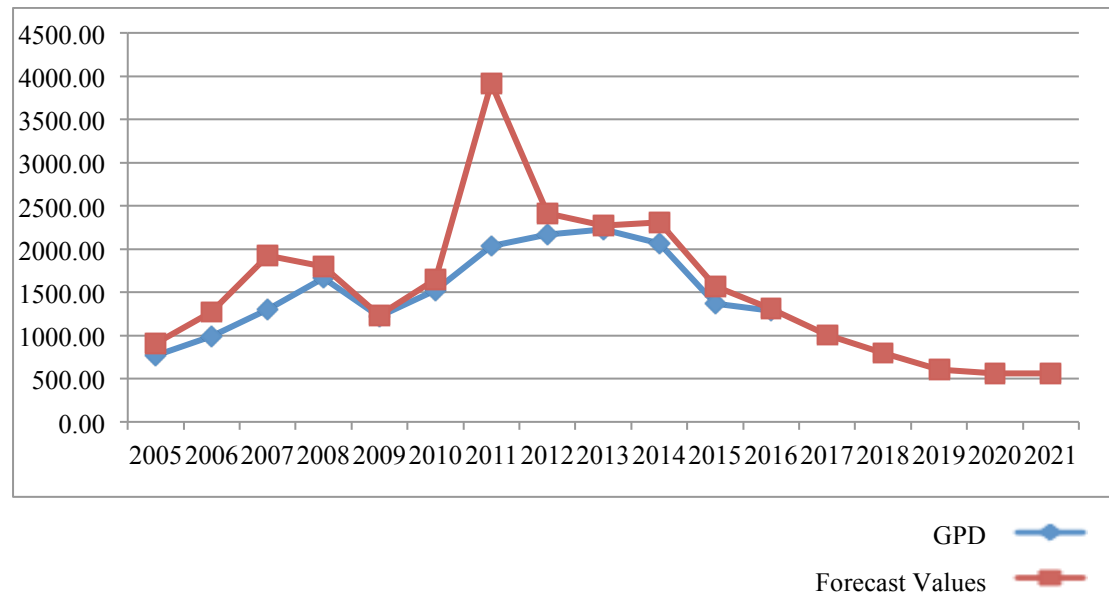
Forecast results on gold and foreign exchange reserves had more pronounced deviations from real indicators in 2008 and in 2012. In 2015-2016 the deviation from real values were 10% and 15%. Reduction of gold and foreign exchange reserves is connected with a policy of Russian government to prevent currency crisis by stabilizing exchange rate using reserves and also to cover the budget deficit and expenses on a military industrial complex of the country.

Figure 4.3. Functions of SVAR model on empirical data of Russia. Balance of payments, in billions USD.



Analyzing data of the figure 4.3, we can draw a conclusion that on average deviation from real values are 1-3%. The greatest divergence in results was noted in 2008 and 2010. Divergences during these years were caused by changes in trade policy.

Figure 4.4. Functions of SVAR model on empirical data of Russia. GDP growth, in billions USD.



Thus, in case of extension of the existing sanctions in Russia for 2017-2021 the exchange rate (devaluation of the Russian currency) will raise, to decrease gold and foreign exchange reserves, to decrease the balance of payments and GDP.

4.4. Check of compliance of an econometric model

To be convinced of the adequacy of the model, the forecast accuracy was checked. For large models, the poor quality of extra selective forecasts can specify an excessive minimization of not explained component during the selective period (overfitting). The model was evaluated on the selection from 2000 to 2016, the forecast of all variables in the model was calculated, then selection increased by one-quarter and the procedure repeated, the end of selection was not reached (2016) yet. Expected values of variables were calculated in the form of quarterly average growth rates on the following of 1,3 and 5 years.

Results are presented in the form of the relation of a mean squared errors of the analyzable model forecast with respect to the appropriate real values.

Table 4.3. Forecast error variances of a separate variables

Variable	1 - Year Forecast	3 - Year Forecast	5 - Year Forecast
oil _t	0,01	0,01	0,01
gdp ru _t	0,14	0,02	0,01

ner_ru _t	0,08	0,08	0,02
m3 _t	0,09	0,15	0,08
rate _t	0,03	0,02	0,01
neer _t	0,01	0,00	0,00
demand _t	0,00	0,00	0,00
exp _t	0,00	0,01	0,00
imp _t	0,06	0,02	0,04
gdp _t	0,02	0,00	0,00
Cpi _t	0,04	0,03	0,00

Thus, the forecasts received on the basis of vector autoregression model are the most exact for indicators of the real sector (especially on the long horizons of 3-5 years).

Table 4.4. Parameters and statistical characteristics of the equations of VAR model

Variables	ner_ru _t	gdp_t	exp_imp	gdp_ru _t	Cpi _t	oil _t
ner_ru _t (-1)	-0,1148	-0,0111	0,0726	-0,1489	-0,0002	0,0022
	-1,6301	-1,9412	1,7086	-1,6502	-0,7052	1,7289
ner_ru _t (-3)	0,0090	0,0038	0,0169	-0,2029	-0,0006	0,0000
	0,4544	1,0026	0,8504	-1,7188	-1,5020	-0,1858
ner_ru _t (-5)	0,0601	-0,0033	-0,0017	-0,2222	0,0000	0,0010
	1,3149	-0,9611	-0,3011	-1,9426	0,3328	1,1719
gdp_t(-1)	-1,2158	0,3682	-0,7045	0,7271	-0,0121	-0,0043
	-1,5325	4,6684	-1,6594	0,7816	-1,7100	-0,5792
gdp_t(-3)	0,2520	0,0472	0,7020	-1,4815	0,0047	-0,0038
	0,5554	1,0729	1,6316	-1,4266	0,8902	-0,5372
gdp_t(-5)	-0,2999	-0,1207	0,2336	0,4478	-0,0081	-0,0107
	-0,7174	-1,7065	0,8291	0,6302	-1,5379	-1,1265
exp_imp(-1)	0,1226	0,0128	-0,2049	-0,0821	0,0009	0,0023
	1,1823	1,6372	-2,4813	-0,7171	1,2889	1,4874
exp_imp(-3)	0,2978	-0,0188	0,1242	-0,0713	-0,0003	0,0001
	1,9951	-1,7628	1,7081	-0,6618	-0,5857	0,2841
exp_imp(-5)	0,0771	-0,0085	-0,0412	0,3225	0,0005	0,0008
	1,0220	-1,1352	-0,9454	1,7221	0,9409	0,6674
gdp_ru _t (-1)	0,2035	-0,0020	0,0105	0,1434	-0,0001	0,0002
	4,1218	-1,0947	0,8107	1,9118	-0,7346	0,6061
gdp_ru _t (-3)	0,0361	0,0007	-0,0183	-0,0116	-0,0001	-0,0006
	1,0194	0,5461	-1,0658	-0,4915	-0,5701	-1,2597
gdp_ru _t (-5)	-0,0022	0,0041	-0,0232	0,1952	0,0000	-0,0016
	-0,2138	1,5511	-1,1651	2,4527	0,2469	-1,9242
cpi_t(-1)	-8,7985	1,3937	1,9501	15,5333	-0,3389	0,0163
	-1,1353	1,7523	0,7776	1,4412	-4,1742	0,4319
cpi_t(-3)	13,7080	-0,8435	-1,3450	11,5715	-0,0094	0,2691
	1,6332	-1,4764	-0,5570	1,1094	-0,3723	1,7014
cpi_t(-5)	9,2289	-0,0598	-4,2966	-5,7636	0,0444	0,1772
	1,2288	-0,2530	-1,1621	-0,7113	1,0136	1,5161
oil_t(-1)	3,9392	-0,1440	-0,3630	-2,5619	0,1137	-0,1515

	1,1873	-0,8629	-0,3970	-0,7086	3,3341	-1,9029
oil t(-3)	4,4883	-0,4025	1,8436	-13,9087	0,1340	-0,0496
	1,2519	-1,6046	1,0066	-1,8523	3,7109	-1,1082
oil t(-5)	-4,6000	0,0418	2,2828	-13,3825	-0,0016	-0,1778
	-1,4463	0,3752	1,3215	-1,7489	-0,3014	-2,0707
C	-0,2680	-0,0132	0,0495	-0,1946	0,0150	0,0117
	-0,6524	-0,4504	0,3866	-0,4856	4,9990	1,7199
R2	0,3791	0,4215	0,2908	0,3510	0,3932	0,2916
Standart error	2,5103	0,1803	1,4244	3,8526	0,0184	0,0430
F-statistics	5,9883	7,2737	3,8715	5,2009	6,3896	3,8855
Akaike information criterion(AIC)	4,3696	-0,1675	3,4039	5,1415	-4,0992	-2,6495
Schwarz criterion (SC)	4,6617	0,1257	3,6975	5,4366	-3,8066	-2,3557

So, the pairwise Granger causality test showed the joint significance (on 5% significance level) of endogenous variable of each equation of the constructed SVAR model. The p-value χ^2 - statistics including 7 variables (ner_rut, gdpt, exp_imp, gdp_rut, cpit, oilt) was 0,3545. All elements of a matrix of short-term contemporaneous correlations are statistically significant.

5. Conclusion

Thus, during the carried-out analysis, we can draw the following conclusions.

At the moment the Ukrainian-Russian relations are not settled, and from the beginning of separatist demonstrations, which have developed into the direct military opposition between the Ukraine and the terrorist organizations, supported by Russia regarding eastern and southern parts of Ukraine, the volume of sanctions has increased. Canada, Japan, Norway, Switzerland and many other have joined to the USA and the countries of the European Union in order to support sanctions against Russia. It is also necessary to note that a formal reason for the imposition of sanctions against the Russian Federation became: 1) annexation of the Crimea and 2) military intervention of Russia in the conflict on Donbass area.

The European Union chooses as a target sectors from which income of the state budget of the Russian Federation depends in many respects. Sanctions are also directed against the Russian military industrial complex that increases a burden of military expenses for the country even more. Also, they are directed to the restriction of the presence of the Russian state and non-state companies at various segments of the world and European market. Also, It should be noted that imposition of sanctions has purposeful character, first of all, to stop military intervention and the conflict on Donbass region, trade and economic cooperation with Russia, cooperation in military, industrial and other sectors of the economy.

Negative aspects of an imposition of sanctions against Russia are the following: with the strengthening of sanctions and blocking access to the world financial markets Russian investment activity significantly decreases. Investments in Russian non-bank sector in comparison with 2014 have decreased almost by 60%. The international rating agencies, such as Moody's, Fitch Ratings and Standard & Poor's, have lowered the credit rating of Russia to the last investment step, therefore, the capital outflow from the country will continue. The main economic results of the imposed sanctions are: restriction of access to cheap credit resources; restrictions imposed on export to Russia of high technologies; growth of inflation over 10%; decrease in inflow of foreign investments into Russia; liquidation of the foreign companies owned by Russian Federation; freezing of foreign assets; devaluation of currency; reduction of oil and gas income; reduction of income of the population that becomes the main reason for reduction of domestic demand. Due to these negative phenomena in the short-term period financial crisis in Russia is inevitable.

Nevertheless, not only by the economy of the Russian Federation felt the negative impact of sanctions, but also the economy of some western countries. For instance, the sanctions against Russia in addition to reduction of demand from China exert a negative impact on the German economy. Besides, restrictive measures on Russia have affected the economy of Great Britain, Lithuania, Denmark, Poland, France, Italy ect. Thus, it becomes obvious that deep interdependence of Russian economy and countries of Europe won't allow isolating Russian Federation completely from the economic relations – any restrictions will directly affect the economy of the European countries.

At extension of the existing sanctions on Russia for 2017-2021 will have impact on the exchange rate (devaluation of the Russian currency). Gold and foreign exchange reserves of the country will decrease dramatically, followed by a fall in Russian GDP.

References

Book sources:

- Кейнс Дж.М. Общая теория занятости, процента и денег. М., 1978, 383 с.
- Мировая политика и международные отношения: Учебн. пособие / [Под ред. Ю.Косова]. – СПб.: Питер, 2012. – 400 с.
- Nincic M., Walensteen, P. (1983). Dilemmas of Economic Coercion: Sanctions in World Politics. New York: Praeger.
- Tung C. (2007). Cross-strait Economic Relations In The Era Of Globalization. Morrisville: Lulu Enterprises, 2007

Working papers:

- Булатова А.И. Отличительные особенности развития регионов России // Экономика и предпринимательство. 2014. № 4. Ч. 1 (45–4). Vol. 8. № 4–1. С. 266–268.
- Ейсбур Ф. Альянс з розрахунку / Франсуа Ейсбур // «The Economist». Світ у 2015. – С.26.
- Клінтон Г.Р. Жіноцтво світу має закінчити розпочате / Гіллари Родгем Клінтон // «The Economist». Світ у 2015. – С.65.
- Педдер С. Політичний марафон Франції / Софі Педдер // «The Economist». Світ у 2015. – С.29.
- Пронин А. В. О правовой природе санкций ЕС в отношении РФ // Историческая и социально-образовательная мысль. 2014. № 2 (24). с. 33-36
- Ренці М. План для Італії / Маттео Ренці // «The Economist». Світ у 2015. – С.33.
- Стівенсон М. Незавершена справа / Мерріл Стівенсон // «The Economist». Світ у 2015. – С.32.
- Фаттал А. Італія напоказ / Александра Фаттал // «The Economist». Світ у 2015. – С.30.
- Kraatz S. (2014) The Russian Embargo: Impact on the Economic and Employment Situation in the EU. Policy Department A: Economy and Scientific Policy, European Parliament, PE 536.291.
- Lindsay J. M. (1986). Trade Sanctions as Policy Instruments: A Re-examination. International Studies Quarterly, 30, 153 – 173.
- Yanova, E., Kudryavtseva, A., Mikhalevsky, D. (2016). Aspects of imposition of sanctions against russia: basic concepts, reasons, consequences. Science yesterday, today. Tomorrow, 2 (24), 132 – 141.
- Electronic sources:**
- Вишневецкая М. (2005). Экономические санкции ЕС. Европейские студии 2, 29 – 43.
- Економічні аспекти нинішнього українсько-російського протистояння URL: http://nbuviap.gov.ua/index.php?option=com_content&view=article&id=387:ekonomichni-aspekti-ninishnogo-ukrajinsko-rosijskogoprotistoyannya-4&catid=8&Itemid=350.
- Закон України «Про санкції» [Електронний ресурс]. – Режим доступу : <http://zakon3.rada.gov.ua/laws/show/1644-18>.
- Информационный центр мировой экономики. (2014). Экономические санкции против России: причины, анализ, списки, последствия. Retrieved 19.08.2017 from http://weic.info/ekonomicheskie_statii/ekonomicheskie_sankcii_protiv_rossii_rf_prichiny_analiz_spiski_posledstviia
- Калюков Е. Внешнеторговый оборот России сократился почти на 6 %. URL: <http://top.rbc.ru/economics/27/01/2015/54c78f809a7947b5345a6dfe>

Карп Е. Зазираючи у провалля: криза євро може розбудити Європу / Едвард Карп URL: <http://tyzhden.ua/World/35560>.

Катасонов В. (2015). Финансово-банковские санкции: Дамоклов меч над Россией. Retrieved 18.08.2017 from <https://www.fondsk.ru/news/2013/10/05/finansovo-bankovskie-sankcii-damoklov-mech-nad-rossiej-23257.html>

Кравченко Л. Ущерб в санкционной войне. URL: <http://www.warandpeace.ru/>

Оприлюднено список осіб і компаній, проти яких Україна ввела санкції URL: <http://ua.korrespondent.net/ukraine/politics/3564175-opryludneno-spysok-osib-i-kompanii-proti-yakym-ukraina-vvelasanktsii>.

Рівень безробіття у країнах Європи // FORBES Україна. Держава – Інфографіка URL: <http://forbes.ua/ua/nation/1384179-infografika-riven-bezrobittya-ukrayinah-evropi>.

Сайт 24 каналу (2014). Як втрачали Крим – хронологія подій. Retrieved 18.08.2017 from http://24tv.ua/yak_vtrachali_krim_hronologiya_podiy_n485964

Санкції України щодо Росії URL: <https://uk.wikipedia.org/wiki/>.

Сулакшин С. С. (2012). Национальная идея России. В 6 т. М.: Научный эксперт.

ТАСС: информационное агентство России (2014). Обама и Меркель предложили создать контактную группу для налаживания диалога Украины и РФ. Retrieved 18.08.2017 from <http://itartass.com/mezhdunarodnaya-panorama/1030123>

Торговельна війна Росії проти України: хто переможе? URL: http://www.icps.com.ua/assets/uploads/files/IU_55_ukr_2016_02_03_1524.pdf.

Україна заборонила діяльність низки російських платіжних систем URL: <http://www.epravda.com.ua/news/2016/10/18/608237>.

Україна запровадила додаткові санкції проти Росії [Електронний ресурс]. – Режим доступу : <http://www.epravda.com.ua/news/2016/12/29/616310>.

Українська правда (2014). ЄС оприлюднив список громадян Росії та України, які потрапили під санкції. Retrieved 19.08.2017 from <http://www.pravda.com.ua/news/2014/03/17/7019337/?attempt=1>

Хроника Инфо. (2014). Россия и Китай не признают украинскую власть. Retrieved 18.08.2017 from <http://hronika.info/mir/16167-rossiya-i-kitay-nepriznayut-ukrainskuyu-vlast.html>

Doxey M. P. (1980). Economic Sanctions and International Enforcement. New York: Oxford University Press.

European Council (2014e). Council implementing regulation (EU) No 810/2014. Retrieved 19.08.2017 from http://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L_.2014.221.01.0001.01.ENG

European Council (2014d). Regulation (EU) No 959/2014 of 8 September 2014 Amending Regulation (EU) No 269/2014 Concerning Restrictive Measures in Respect of Actions Undermining or Threatening the Territorial Integrity, Sovereignty and Independence of Ukraine. Official Journal of the European Union. September 8. Retrieved 19.08.2017 from <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0959&from=EN>

European Council (2014g). Council Regulation (EU) No 1351/2014 of 18 December 2014 amending Regulation (EU) No 692/2014 concerning restrictive measures in response to the illegal annexation of Crimea and Sevastopol. Official Journal of the European Union. 18 December 2014. Retrieved 19.08.2017 from <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R1351&from=EN>

European Council (2014 a). Statement of the Heads of State or Government on Ukraine. Brussels, 6 March 2014. Retrieved 19.08.2017 from <http://www.eliamep.gr/wp-content/uploads/2014/03/Statement-of-the-Heads-of-State-or-Government-on-Ukraine-6.3.2014.pdf>

European Council (2014b). Council Decision 2014/145/CFSP Concerning Restrictive Measures in Respect of Actions Undermining or Threatening the Territorial Integrity, Sovereignty and Independence of Ukraine. Official Journal of the European Union. March 17. Retrieved 19.08.2017 from <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014D0145&from=GA>

European Council (2014c). Regulation No 833/2014 of 31 July 2014 Concerning Restrictive Measures in View of Russia's Actions Destabilising the Situation in Ukraine. Official Journal of the European Union. July 31. Retrieved 19.08.2017 from https://www.nrcc.no/images/pdf/RU_Sanctions/EU_Sanctions_detailed.pdf

European Council (2014f). EU restrictive measures in view of the situation in Eastern Ukraine and the illegal annexation of Crimea. Brussels, 29 July 2014. Retrieved 20.07.2014 from <https://www.google.ru/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwiXkPbU6erVAhXCOo8KHfnLAecQFggmMAA&url=http%3A%2F%2Fwww.consilium.europa.eu%2Fen%2Fpress%2Fpress-releases%2F2014%2F07%2Fpdf%2Fen-restrictive-measures-in-view-of-the-situation-in-eastern-ukraine-and-the-illegal-annexation-of-crimea%2F&usg=AFQjCNGzeK3R1msOrG-bufTxUMSdMIABaA>

Galtung J. (1967). On the Effects of International Economic Sanctions. World Politics, 19, 378 – 416.

Kaempfer, W. H., Lowenberg, A. D. (2007). The Political Economy of Economic Sanctions. In T. Sandler and K. Hartley (Eds) Handbook of Defense Economics 2, 867 – 911.

Masters J. (2017). What are economic sanctions. Retrieved 18.08.2017 from <https://www.cfr.org/backgrounder/what-are-economic-sanctions>

Nessebar Dimitar. Влияние санкций на экономику России. Последствия введения санкций. Экономика России сегодня. URL: <http://fb.ru/article/159526/vliyanie-sanktsiy-naekonomiku-rossii-posledstviya-vvedeniya-sanktsiy-ekonomikarossii-segodnya>

Schjodt (2014). Updated Newsletter On Sanctions Against Russia. Retrieved 21.08.2017 from http://www.schjodt.no/media/1073325/eu_sanctions_russia_aug2014_oppdatering.pdf

UNIAN. (2014). Обама затвердив нові санкції проти Росії. Retrieved from <http://economics.unian.ua/finance/940526-obamazatverdiv-novi-sanktsiji-proti-rosiji.html>

Websites:

data.imf.org data.oecd.org

databank.worldbank.org

ec.europa.eu

europa.eu

wits.worldbank.org

www.cia.gov

www.gks.ru/

7. Appendixes

Appendix A

Stages of introduction of sanctions of the USA against Russia

- On March 4, 2014, have frozen investment and military cooperation with Russia, bilateral negotiations and planning of conferences have also been cancelled.
- On March 13 declared carrying out "trial sale" five million barrels of oil from a strategic oil reserve, the sulphur, similar on contents, exported from Russia.
- On March 16 the U.S. President Barack Obama has signed the decree (executive order 13661) which imposes sanctions on a number of the Russian officials in the form of freezing of their bank accounts, an arrest of property and refusal in the issue of entry visas. Seven people have been listed in the decree by name, but the right of the secretary of the treasury to supplement the list in coordination with the state secretary was also mentioned in the text.
- On March 20 the U.S. President 13662 has expanded with the warrant the list of the Russian high-ranking officials against whom sanctions are imposed and also has imposed sanctions against Bank Rossiya called by "personal bank of the high-ranking officials of the Russian Federation" (the personal bank for senior officials of the Russian Federation) and large Russian businessmen who were considered by the connected business relations with the president V.V. Putin (G.N. Timchenko, brothers A. R. and B.R. Rotenberg, Yu.V. Kovalchuk).
- On March 27 have suspended cooperation with Russia in the sphere of a fight against drugs and also have suspended issue to the American companies of licenses for export to Russia to "potentially dangerous production".
- On March 28 have stopped licensing of export to Russia of goods and services of defensive appointment.
- On March 30 have stopped work of the Russian-American presidential commission.
- On April 2 have suspended a number of projects with Russia within the bilateral presidential commission and also some directions of cooperation on the line of law enforcement agencies, and have readdressed financing on their realization to Ukraine.
- On April 3 have suspended consultations with Russia in the field of missile defence and also have suspended cooperation in the space sphere except for the project of the International Space Station and on a number of projects in the field of the peaceful atom.
- On April 7 have stopped cooperation with Russia within Nunn-Lugar's program and also have closed access to citizens of Russia to objects of the Ministry of Energy, including Brukheyvensky national laboratory иФермилаб.
- On April 11 have imposed sanctions against seven representatives of the leadership of the Crimea and the Chernomorneftegaz company.
- On April 28 have imposed sanctions against 7 government officials of the Russian Federation and 17 Russian companies. Also, have forbidden to sell to Russia hi-tech goods which can enhance the fighting capacity of the Russian army and cancelled earlier granted licenses for their deliveries.
- On May 7 have excluded Russia from the trade program allowing countries with economies in transition to import duty-free to the USA certain types of goods.
- On June 18 toughened the export mode concerning 5 Russian companies: Fryazino branch of Institute of radio engineering and electronics of the Russian Academy of Sciences, JSC Voentelecom, Academy of the safety of business, LLC Nasosy Ampika, LLC Nuklin.
- On June 21 imposed sanctions against 7 leaders of separatists and the Russian officials.
- On July 16 imposed the first sanctions against key sectors of the Russian economy. Fell under sanctions:
 - Rosneft, gas company "Novatek", state Vnesheconombank and Gazprombank;

- Enterprises of the Russian defence industry complex: corporations "Almaz-Antey", "Izhmash", Kalashnikov Concern, NPO Bazalt, Ural Carriage-Building Plant and Instrument Design Bureau, NPO Mashinostroyeniya, KRET, "Constellation";
- Luhansk People's Republic and Donetsk People's Republic;
- Feodosiya oil depot;
- Several Russian politicians and military and also representatives of antigovernmental forces in Ukraine.
- On July 25 I refused to support projects of the World Bank in Russia.
- On July 29 imposed sanctions against Bank of Moscow, VTB bank and Rosselkhozbank. Citizens and the companies of the USA are forbidden to acquire debt obligations of these banks or related legal entities and also their property for the term of over 90 days. Sanctions against United Shipbuilding Corporation of the Russian Federation are also imposed.
- On August 6 forbade delivery to Russia of the equipment for depth production (over 152 meters), development of the Arctic shelf and slate inventories of oil and gas, delivery of technologies of non-traditional production of energy carriers: drilling platforms, details for horizontal drilling, the underwater equipment, the sea equipment for operation in the conditions of the Arctic, the software for the hydraulic fracturing (HF), remotely-controlled submersibles, pumps of high pressure. Entered mandatory check of the finite receiver of technologies of non-traditional production of energy carriers, with deniability in licensing.
- On September 12 imposed sanctions against:
 - Corporations "Gazprom", "Lukoil", "Transneft", "Gazprom Neft", "Surgutneftegas", "Novatek", "Rosneft". The American companies are forbidden to deliver them goods and technologies necessary for mastering of oil fields on deep-water sections and the Arctic shelf and also in slate layers. Also forbade to take Gazprom Neft and Transneft corporations the credits and to place securities in the American market for the term of more than 90 days. The taken measures are designed not to allow deliveries of such technologies and the equipment to the Russian companies even through intermediaries.
 - Sberbank, Bank of Moscow, Gazprombank, Rosselkhozbank, Vnesheconombank, VTB bank and Novatek and Rosneft corporations. The American citizens and the companies are forbidden to buy bonds of the above-named banks and corporations with circulation periods over 30 days and also to grant them the loans.
 - Enterprises of defence industry complex: Rostec corporations, Almaz-Antey air defence concern, JSC Dolgoprudny Research Production Enterprise, JSC Engineering Plant of M.I. Kalinin, JSC Mytishchi Engineering Plant, JSC Research Institute of Instrument Making of V.V. Tikhomirov.
- On September 25 the Corporation of private foreign investments has suspended consideration of any investments in the Russian projects and provisions of guarantees under investments into them.
- On December 18 the U.S. President Barack Obama has signed the Act adopted by the Congress in support of Ukraine allowing him to make decisions on the introduction of additional restrictive measures on Russia and also to render military aid to Ukraine.
- On December 19 the U.S. President the warrant 13685 has imposed new sanctions:
 - Have imposed economic sanctions against the Crimea:
 - Have forbidden import to the territory, directly or indirectly, of any goods, services or technologies from the Crimea;
 - Have forbidden export, re-export, sale or delivery, directly or indirectly, from the territory, or the person who is the U.S. citizen of any goods, services or technologies to the Crimea;
 - Have forbidden granting permissions, financing or assistance to agreements which are concluded by the persons which have fallen under sanctions;
 - Have granted the right to the Minister of Finance to put sanctions on faces and the companies which work in the Crimea;
 - Have imposed sanctions against Marshall-capital fund, the Profaktor company, biker club "Night Wolves", "National militia of Donbass", Novorossiia parties, the Oplot organizations and the movements "Yugo-Vostok";

- Have imposed sanctions against 17 people.
- On December 29 the Federal Aviation Administration of the USA has established the ban on flights in the Simferopol district of flight information (UKFV).
- On March 4, 2015, have prolonged for a year restrictive measures concerning Russia because of deepening of the conflict in the east of Ukraine.
- On March 11 have imposed sanctions against 14 people, the Euroasian union of youth and the Russian National Commercial Bank.
- On March 31 have stopped dialogue with the Russian side on the establishment in the European countries of elements of the system of missile defence (missile defence).
- On June 24 have entered punishment for any foreign banks making financial transactions with the Russian legal entities and individuals entered earlier in sanctions lists. From this point opening of corresponding accounts in the USA can be forbidden to foreign banks violators, and tight restrictions can be imposed on the corresponding accounts existing at them.
- On July 30 imposed sanctions against 11 people and a row of the organizations among which:
 - state management company "Russian Direct Investment Fund";
 - structures of Vnesheconombank: "Corporation of development of the North Caucasus", UK "Fund of Development of the Far East and Baikal Region", "Belvnesheconombank", "Russian Agency on Insurance of the Export Credits and Investments", "Eximbank", "Federal Centre of Project Financing", Globeks bank, CJSC Kraslesinvest, Prominvestbank, RESAD, Rose Group, MSP bank, "Sviaz-Bank", "VEB Asia Limited", VEB Capital, "VEB Inzhinirin", VEB Leasing;
 - structures of Rosneft: Vankorneft, Neft-Aktiv, the Achinsk overworking plant, the Angarsk oil refinery, Kuibyshev Refinery, Novokuibyshev Refinery, Orenburgneft, RN Holding, "Russian Regional Development Bank", Samotlorneftegaz, Syzran Refinery, Komsomol oil refinery, Yugansneftegaz, "Rosneft Finance", Rosneft Trade Limited, "Rosneft Trading";
 - objects in the Crimea: Kerch ferry, commercial ports of Yevpatoriya, Feodosiya, Kerch, Sevastopol and Yalta;
 - Izhevsk mechanical plant, Izhmash concern, MKAO holding, "Airfix Aviation", "IPP Oil Products", "Langvik Capital", "SET Petrochemicals", "Southeast Trading OY", "SouthPort Management Service Limited".
- On August 7 imposed sanctions against the Southern Kirinsky field of the Sakhalin-III project of the Gazprom company.
- On December 22 imposed sanctions against 12 people and also Yalta film studio, "Avia Group Terminal", the Azov alcoholic beverage plant, "Fentex Properties", Inrezbank, Genbank, "Sevastopol Sea Bank", "Lerma Trading", LTS, "Maples", Volgogradneftemash, Verkhnevolzhsky commercial bank, Krayinvestbank, foreign trade organization "Technopromexport", "Mosoblbank", sanatorium "Lower Oreanda", wine-making plant "Massandra", the plant of sparkling wines "New World", institute of grapes and wine "Magarach", "Universal-avia", "Transservice", "White Seal", the Experimental plant, Aktivbusinesskollekshn, The Moscow engineering experimental plant, NPO Optika, NPK "Technologies of Mechanical Engineering", the Novosibirsk plant of semiconductor items, RT-Biotekhprom, "RT-Himichesky technologies and composition materials", "RT-Okhrana", "RT-Stroitelnye technologies", Schwabe holding, Tekhnodinamiki, CDB of special radio materials, "Auction", "Banco VTB Africa", "VTB Kazakhstan", VTB 24, BPS-Sberbank, "Epic athletes", "Setel Banka", Gals-Development, Novikombank, Subsidiary bank of Sberbank of Russia in Ukraine, Aviapriborostroyeniye concern, Orion concern, Sirius concern, Korpus Consulting, "The modern technologies", "Multi-card", engineering plant "Mayak", Non-state pension fund of Sberbank, Non-state pension fund VTB, United Engine Corporation, Oboronprom, Prominvest, "RT-Energoeffektivnost", "RT-Inform", Yandex.Money, Kalinovsky chemical plant, Aviation Equipment concern, NPO Splav, Novosibirsk production association "Luch", "Novo-Vyatki", New Vyatka mechanical plant, NPO Vysokotochnye komplekсы, "RT-

Stankoinstrument", "Technologies of safety", Foreign trade organization "Stankoimport", "VTB Bank Kiev", Rosoboronexport, "The Russian electronics", "RT-Globalnye resources", "RT-Metallurgiya", Rusta, "SB International", "SB Sberbank Kazakhstan", "SB Securities", "Sberbank Switzerland", Sberbank Capital, "Sberbank Europe", Finance company of Sberbank, Insurance broker of Sberbank, Insurance company of Sberbank, Sberbank Investments, Sberbank Leasing, "Sberbank of Technology", "The Ulyanovsk hypro aviation industry", "Helicopters of Russia", "VTB Bank Armenia", "VTB Bank Austria", "VTB Bank Azerbaijan", "VTB Bank Belarus", "VTB Bank Georgia", "VTB Bank Belgrade", VTB Capital, "VTB of DTs", "VTB Factoring", VTB Insurance, VTB Leasing, "VTB Pension administrator", "VTB Real estate", "VTB Registrar", "Spetsdepozitory VTB".

- On March 2, 2016, have prolonged sanctions against Russia for a year.
- On February 25 recommended to some large American banks not to buy the Russian bonds.
- On September 1 have included in the sanctions list:
- 17 natural persons;
- 20 organizations, companies, state enterprises and institutions: JSC Institute Giprostroymost-St. Petersburg, CJSC ABR Management, CJSC Sovmortrans, FAU "Glavgosekspertiza of Russia", Federal state unitary enterprise "Shipbuilding Plant "More"", LLC Koksokhimtrans, JSC Center of Ship Repair Zvyozdochka, JSC Uranis-Radiosistemy, PJSC Sovfrakht, LLC Road Construction Company, Shipbuilding plant "Gulf", LLC STG-Eko, PJSC Mostotrest, Ukraine Salvation Committee, JSC SGM Most, LLC SMT-K, LLC Sovfrakht Management Company, Sovfrakht-Sovmortrans Group of companies, SUE RK Feodosiysky optichesky zavod, JSC Bank Rossiya;
- Within sectoral sanctions - several tens of subsidiaries of Bank of Moscow (VTB Group), Gazprombank and Gazprom: LLC Achim Development, CJSC Areksimbank — Group of Gazprombank, CJSC Avtomatizirovannye bankovskiye tekhnologii, PJSC BM-Bank, BM Holding AG, LLC BM-Direktion, BoM Asset Management Ltd., BoM Finance Ltd., BoM Project Financing Ltd., JSC BPO Pechatniki, Centrex Europe Energy & Gas AG, JSC Credit Ural Bank, Crossplanet Ltd. JSC Daltransgaz, JSC Druzhba, AS Eesti Krediidipank, CJSC Finansovy assistent, LLC Gazkardservice, JSC Gazmash, LLC Gaz-Oil, LLC Gazprom dobycha Irkutsk, LLC Gazprom dobycha Krasnodar, LLC Gazprom dobycha Kuznetsk, LLC Gazprom dobycha Nadym, LLC Gazprom dobycha Noyabrsk, LLC Gazprom dobycha Urengoy, LLC Gazprom dobycha Yamburg, LLC Gazprom energo, LLC Gazprom Fleet, LLC Gazprom gaznadzor, LLC Gazprom gazobezopasnost, LLC Gazprom Geological Exploration, LLC Gazprom inform, LLC Gazprom invest, LLC Gazprom capital, LLC Gazprom komplektatsiya, JSC Gazprom Media Holding, LLC Gazprom Mezhhregiongaz, LLC Gazprom pererabotka, LLC Gazprom Personnel, JSC Gazprom promgaz, LLC Gazprom Russian, LLC Gazprom sotsinvest, OOO "Gazprom svyaz", LLC Gazprom telecom, LLC Gazprom transgaz Kazan, LLC Gazprom Transgaz Krasnodar, LLC Gazprom Transgaz Makhachkala, LLC Gazprom transgaz Nizhny Novgorod, LLC Gazprom Transgaz Samara, LLC Gazprom transgaz Saint Petersburg, LLC Gazprom transgaz Saratov, LLC Gazprom transgaz Stavropol, LLC Gazprom transgaz Surgut, LLC Gazprom transgaz Tomsk, LLC Gazprom Transgaz Ufa, LLC Gazprom Transgaz Ukhta, LLC Gazprom transgaz Volgograd, LLC Gazprom transgaz Yugorsk, LLC Gazprom tsentremont, LLC Gazprom VNIIGAZ, Gazprombank (Switzerland) Ltd., Gazprombank Latin America Ventures B.V., CJSC Gazprombank Leasing, CJSC Gazprombank-Asset Management, GPB Financial Services Ltd., GPB Global Resources B.V., GPB International S.A., LLC Gazprombank-Invest, GPB-DI Holdings Ltd. LLC GPB-factoring, AB GPB-Ipoteka (JSC), LLC IZ-KARTEKS imeni P. G. Korobkova, JSC Izhora Plants, JSC Kamchatgazprom, PJSC Krasnoyarskgazprom, JSC Cryogenmash, LLC Lazurnaya, CJSC Lespromprotssessing, LLC Baltech, JSC International Management Company, Nagelfar Trade and Invest Ltd., CJSC Novye finansovye tekhnologii, LLC NIIGazeconomika, JSC OMZ (Uralmash Izhora group), LLC OMZ-Spetsstal, JSC Chayka, CJSC PO Uralenergmontazh, LLC

Rieltsiti, JSC MSK Insurance Group, Š KODA JS a.s., JSC United Company, PJSC Uralmashplant, JSC Vostokgazprom, CJSC Yamalgazinvest.

- On September 6 have expanded the sanctions list on 81 companies under 86 names among which the main part was included into the list earlier, and 11 - have been included for the first time: JSC Angstrom-M, Giovan Ltd., JSC Angstrom, JSC Angstrom-T, JSC IN Radioeksport, JSC Perm Research and Production Instrument-making Company, PJSC Mikron, JSC NPF Mikran, ANO OTs Garant, Technopole Company, Technopole Ltd.
- On November 14 have expanded the sanctions list on 6 people.
- On November 18 have said that plan to stop the purchase of the Russian Mi-17 helicopters for Afghanistan. Instead of them, the American Sikorsky UH-60 Black Hawk will be bought.
- On December 20 have included about the sanctions list of 7 individuals, SUE RK Krymskiye morskoye porty, Federal State Unitary Enterprise RK Krymskaya zheleznaya doroga, JSC Institute Stroyproyekt, LLC Stary gorod-KARST, LLC Roskhimtreyd, LLC Solid, SK LLC Trans-Flot, OOO "Transpetrochart" and the Marshal Zhukov and Stalingrad tankers.
- On December 23 have forbidden the Ministry of Defence assignment for military cooperation with Russia, for any activity which is connected "with recognition of sovereignty of Russia in the Crimea" and also on cooperation with Russia in various technological spheres (except for the Russian suppliers of rocket engines; any actions necessary for the USA for implementation of obligations within bilateral and international agreements for arms control and on non-proliferation and also other contracts; I died, actions of the USA, necessary for providing, and NATO in Afghanistan). Besides, have prolonged till 2027 the ban on exchange of information with Russia about missile defence and also for the creation of the joint systems of missile defence with Russia and China.
- On December 27 the Red Banner plant, Federal State Unitary Enterprise Ekran, JSC NPP Eltom, JSC FNPTs NNIIRT, JSC Institute Stroyproyekt, JSC GOZ Obukhovskiy Plant, NPO NIIP-NZIK, JSC Scientific Research Institute of the Aviation Equipment, Federal State Unitary Enterprise KNIRTI, LLC Stary gorod-KARST, LLC Roskhimtreyd, JSC VNIIRA, JSC Vektor, LLC Solid, JSC GRPZ, JSC NPO JSC LEMZ, CB Svyaz, SK LLC Trans-Flot and OOO "Transpetrochart" have imposed sanctions against SUE RK Krymskiye morskoye porty, SUE RK Krymskaya zheleznaya doroga, PJSC.
- On January 13, 2017 have prolonged sanctions against Russia for a year.
- On June 20 have included in the sanctions list:
 - 19 natural persons;
 - 19 organizations and companies: "Bike center", Central republican bank of the DPR, Concord-Catering, IFD "Kapital", JSC CB IS Bank, JSC CB Rublyov, JSC ChBRR, JSC CB Severny Credit, LLC KPSK, LLC Konkord Management and Consulting, LLC Molot-Oruzhiye, LLC Oboronlogistika, ChVK "Wagner", Riviera Sunrise Resort & SPA, National bank of LPR, Taatta Bank of the joint-stock company, Center of International Payments (LLC) Bank, PJSC Bank VVB, Holding of security structures "Wolf";
 - Within sectoral sanctions - 20 subsidiaries of Transneft: JSC Chernomortransneft, LLC Far East Construction Directorate, JSC Giprotuboprovod, JSC NPF Transneft, JSC Svyaztransneft, LLC Transneft Finance, JSC Transneft-Diaskan, JSC Transneft Friendship, JSC Transnefteproduct, LLC Transneft Media, JSC Transneft Metrology, LLC Transneft Protection, JSC Transneft Podvodservis, JSC Transneft Prikamye, JSC Transneft-Privolga, JSC Transneft North, JSC Transneft Siberia, JSC Transneft-Centralnaya Sibir, JSC Transneft Urals, LLC Project Management Center Eastern Siberia-Pacific Ocean.