

**UNIVERSITY OF ECONOMICS
PRAGUE**

BACHELOR THESIS

2016

Alena Pak

University of Economics, Prague

International Business



“Impact of sanctions on the Russian economy”

Bachelor Thesis

Author: Alena Pak

Thesis instructor: Ing. Ilya Bolotov, MBA, Ph.D.

Scholar year: 2015/2016

Declaration:

I hereby declare that I am the sole author of the thesis entitled “Impact of sanctions on the Russian economy“. I duly marked out all quotations. The used literature and sources are stated in the attached list of references.

In Prague on

Signature

Alena Pak

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List of Abbreviations

AIIB	Asian Infrastructure Investment Bank
APEC	Asia-Pacific Economic Cooperation
CNPC	China National Petroleum Corporation
CNY	Chinese Yuan Renminbi
CRA	Contingent Reserves Arrangement
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
NDB	New Development Bank
OFAC	Office of Foreign Assets Control
OLS	Ordinary Least Squares
SSI	Sectoral Sanctions Identifications

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Introduction

From the end of 2014 Russia has been experiencing economic downturn with depreciation of the Russian rouble and slowdown of its economy. The GDP growth rate fell from 3.4% in 2012 and 1.3% in 2013 to 0.7% and -3.7% in 2014 and 2015, respectively. Russia has also been experiencing falling government revenues, total trade value, capital outflow and high inflation. The reasons for such economic deterioration are dropping crude oil prices and international sanctions connected with the Ukrainian crisis. International sanctions against Russia were implemented by the EU, USA, Switzerland, Norway, Canada, Australia and other countries. They included individual asset freezes and travel bans, trade restrictions in oil, gas and military industries as well as financial limitations for specific Russian companies. Moreover, Russia has imposed counter-sanctions in the form of food embargo and individual travel bans.

The sanctions by the Western countries have been implemented in order to prevent Russia from intervention and escalation of the Ukrainian crisis as well as in response to the accession of the Crimean region. Based on theories of international sanctions, sanctions are successful if they achieve their goal – change in behaviour of the target. Political goal of sanctions in connection with the Ukrainian crisis has been not reached. Though, it is possible to assess the economic cost for the target. According to the theories of international sanctions, the effectiveness of sanctions can be based on several variables, including political regime of the target, prior relations between the sender(s) and the target, international assistance, types of sanctions and cost they impose on the target. The cost is the main economic factor used to predict the success of sanctions, which can be inflicted by limited accessibility to foreign capital or restricted trade. If the cost from sanctions is extensive, it is more probable that the target will change its behaviour.

The aim of this thesis is to analyse the impact of international sanctions on the Russian economy, implemented both by and against Russia. The Russian economic situation has been worsening due to decreasing oil prices and sanctions. The contribution of sanctions to the current economic situation of Russia has been under focus by international news agencies as well as scholars, for example, in World Bank and Gaidar Institute.

The thesis is structured the following way. The first chapter presents an overview of theories of international sanctions, including general definition and variables that influence the

effectiveness of sanctions. Secondly, historical overview of the Ukrainian crisis and implementation of sanctions is described. The sanctions against Russia and counter-sanctions are analysed separately. Thirdly, the impact of sanctions on the Russian economy is presented, which consists of several separate topics: economic factors that influence the effectiveness of sanctions, macroeconomic indicators of the Russian economy before and after implementation of sanctions, economic forecast for 2016 and 2017, change in trade flow and, lastly, gravity model of trade analysis. Economic factors that influence the effectiveness of sanctions are based on variables that are presented in the theoretical part. The macroeconomic indicators of the Russian economy and trade flow development before and after imposition of sanctions are taken from Russian and international statistical sources and presented in tables for comparison. The gravity model of trade is used to answer the hypothesis whether economic sanctions connected with the Ukrainian crisis, both by and against Russia, have had an effect on the Russian economy. The model is used in fixed effects panel data method and overview of individual years. The hypothesis is formulated in the following way:

Hypothesis 0: Economic sanctions against and by Russia connected with the Ukrainian crisis have had no impact on the Russian economy.

Hypothesis 1: Economic sanctions against and by Russia connected with the Ukrainian crisis have had an impact on the Russian economy.

1. Theories of International Sanctions

1.1. General Theory

International sanctions are one of foreign policy instruments to influence another state's behaviour. The mechanism works in such a way that sanctions inflict some damage on a target country aiming at its ruling regime. In order to avoid further damage or decrease the current one a target state alters its behaviour. Alternatively, according to Mack and Khan (2000)¹, harm from sanctions is inflicted on citizens, which will pressure their government to change. Nevertheless, the main purpose of sanctions is to influence behaviour of a target country.

Several types of sanctions can be distinguished such as diplomatic, economic, military sanctions or travel bans. The focus of the research is on economic instruments. Historically, sanctions have been levied for a long time. For example, the Megarian Decree was issued by the Athenian Empire in c. 432 BC against Megara.² The measures implemented prohibited Megarians from entering harbours and marketplaces in the Athenian Empire. Another example can be Nonimportation Agreements of 1765-1774 by the U.S. colonists or Embargo Act by Thomas Jefferson in 1807 against British imports as a response to British policies.³ Historical overview of sanctions between 1915 and 2000 by Hufbauer, Schott, Elliott and Oegg includes 174 cases.⁴

Most recent cases are EU and US sanctions against Syria in 2011, Libya in 2011 and 2015 and Russian Federation in 2014 and 2015.⁵

Various theoretical approaches to international economic sanctions exist. Goals, classification, implementation and effects of economic sanctions are analysed in variety of papers. One of the earliest scholars is Galtung (1967). For further analysis it is important to

¹MACK, A, KHAN, A. *The Efficacy Of UN Sanctions*. In: Security Dialogue. New York: SAGE Publications, 2000, **2000**(31), 279–292.

²BONNER, R.J. *The Megarian Decrees*. In: Classical Philology. Chicago: University of Chicago Press, 1921, **1921**(16), 238-245.

³*Embargo Act*. Encyclopædia Britannica [online]. Chicago: Encyclopædia Britannica Inc, 2015 [2015-10-25]. (Available at: <http://www.britannica.com/topic/Embargo-Act>)

⁴HUFBAUER, G. C. et al. *Economic Sanctions Reconsidered*. 3rd ed. Washington, DC: Peterson Institute for International Economics, 2007. ISBN 978-0-88132-407-5.

⁵*Sanctions List Countries*. BSCN [online]. Bussum: BSCN, 2016 [2016-04-13]. (Available at: <http://www.bscn.nl/sanctions-consulting/sanctions-list-countries>)

specify that “sender” means a country applying sanctions, while “target” is a country against which sanctions are implemented.

The first element of economic sanction is its goal, which is either *instrumental* or *expressive*. When the goal is instrumental, a sender is seeking to damage a target to alter its behaviour. An expressive goal means that a sanction shows the disposition of a sender towards behaviour of a target. Some scholars like Galtung (1967) and Renwick (1981), Leyton-Brown (1987), Tsebelis (1990)⁶ think that more often sanctions are expressive or demonstrative. From their point of view, such measures are used to satisfy domestic groups, other allies or establish a reputation. For Tsebelis (1990) main goal is a signal to other countries that specific behaviour will be punished. Hufbauer et al. (2007) in their analysis of empirical data found three basic signals of sanctions. Firstly, a sender shows its discontent with actions to a target country. Secondly, a sender demonstrates to allies that words are followed with deeds. Thirdly, a sender displays to domestic public that its government protects national interests.

Sanctions can be classified as *unilateral* or *multilateral*. Unilateral measures are implemented only by one sending country, while multilateral involve several. Cuban Assets Control Regulations by USA in 1963 are example of unilateral regulation, while economic sanctions against Rhodesia in 1966 imposed by most UN member states are multilateral.⁷ Multilateral measures are commonly assumed to be more successful as the more countries cooperate, the greater will be impact. However, empirical study by Hufbauer, Schott and Elliott (1990) found absent or even negative correlation between number of senders and success of sanctions. According to Drezner (1998), it happens rather because of enforcement difficulties than bargaining problems. Furthermore, with increasing cooperation, the economic rents for countries refrained from sanctions are also growing. Thus, the competition among sending countries is growing. Monitoring also becomes more difficult. Though, it is not true for all cases. As it pointed out by Drezner (2000), the results are opposite for sanctions which involve international organizations that participate as coordinating actors and prevent nations from refraining.

Economic sanctions can be implemented in several ways: trade, financial or “smart” sanctions. *Trade measures* are classified as restrictions on imports from, i.e. boycott, or exports to another country, i.e. embargo. Trade sanctions result in costs for a target in terms of

⁶Cited in KAEMPFER, LOWENBERG (2007)

⁷*Cuban Assets Control Regulations: A Rule by the Foreign Assets Control Office on 09/21/2015*. US Federal Register [online]. Washington, DC: US Federal Register, 2015 [cit. 2015-10-25]. (Available at: <https://www.federalregister.gov/articles/2015/09/21/2015-23587/cuban-assets-control-regulations>)

“lost export markets, denial of critical imports, lower prices for embargoed exports and higher prices paid for substitute imports”.⁸ Third of all cases analysed include both boycott on imports and embargo on exports. Empirically embargoes were used more often than boycotting when implemented separately. It can be explained that possible damage is estimated to be usually higher from export than import restrictions, especially when a sender is a key supplier, as it can be easier to find alternative buyers of imports.

Financial sanctions are also actively used. As research by Hufbauer et al. (2007) shows, financial measures were used alone or together with trade restriction in 153 out of 204 cases. The instrument can involve restriction on investments or even disinvestment. Generally, as capital is limited, production costs increase and profits decrease, which leads to decreasing tax revenues. It also damages target's economic growth. As many economies are dependent on foreign financing and there are fewer larger financiers, financial sanctions can be significantly disruptive.

Majority of cases studied by Hufbauer et al. (2007) are a combination of trade and financial sanctions. Some scholars as Elliott (2002) see financial instruments more effective, especially in case of a target strongly dependent on financial inflows from other countries. Furthermore, it is easier to regulate and more difficult to evade. It can also interrupt some trade relations as a target loses foreign currency.

Though, both trade and financial sanctions hurt the whole country and population. It was pointed out by some like Galtung (1967) that such sanctions may lead to “rally round the flag” response and strengthening of nation's support for the government. Also, it may weaken civil society and influence of opposition. Based on such possible effects of trade and financial sanctions, some scholars like Kaempfer (2004) argue that “*smart*” *sanctions* are more effective. This instrument includes freezing individual's foreign assets and individual travel bans. People targeted are usually important political figures. “Smart” sanctions are used to weaken the power of elites through depriving it of resources.

Another important characteristic of sanctions is *duration*. The process usually starts with a sender country threatening, can further proceed with actual imposition of measures and finishes with cancelation. The effect of duration is controversial. Some scholars like Brady (1987), Daoudi and Dajani (1983) say that economic impact grows with longer duration,

⁸HUFBAUER, G. C. et al. *Economic Sanctions Reconsidered*. 3rd ed. Washington, DC: Peterson Institute for International Economics, 2007. ISBN 978-0-88132-407-5.

while others like van Bergeik (1994), Hufbauer, Schott, Elliott (1990)⁹ see negative correlation. The longer is the duration of sanctions, the higher are accumulated costs. On the other hand, with longer period a target can adapt to sanctions.

1.2. Variables Affecting the Success of Economic Sanctions

There are specific variables that impact the effectiveness of economic sanctions. Most of them are derived from such empirical studies as “Economic sanctions reconsidered: History and current policy” by Hufbauer et al. (2007) as well as other papers. The table for some determinants tested by scholars can be seen in the report “The political economy of economic sanctions” by Kaempfer and Lowenberg (2007). Variables which have impact on effectiveness of economic sanctions can be divided into two main groups: political and economic.

1.1.1. Political Determinants

Political determinants are prior relations between sender and target degree of international cooperation in implementation, international assistance to a target country and political regime.

International cooperation here means both whether sanctions are unilateral or multilateral and whether an international organisation participates as a coordinator or not. Difference between impact of unilateral and multilateral sanctions was mentioned earlier. Logically, the higher is the degree of international cooperation, the higher is pressure on a target country and the higher is effectiveness of economic measures. This was pointed as true by Drezner (2000) for international cooperation including international organization as a coordinator. However, empirical evidence analysis as by Hufbauer et al. (2007) and Bapat et al. (2013) shows negative relationship between number of senders and effectiveness of sanctions. The negative correlation between the degree of international cooperation in usage of sanctions and their effectiveness is assumed in the paper. This variable is important for political outcome of economic measures as well as economic one.

International assistance to a target country means whether a target country is supported by its neighbours and allies in political or economic way in response to sanctions. A target can receive assistance in form of moral support and trade, financial and other economic agreements. With aid from other countries, the impact of sanctions can be reduced, especially when a target is able to substitute lost capital and markets with newly acquired ones. The

⁹ Cited in KAEMPFER, LOWENBERG (2007)

correlation between international assistance to a target country and success of sanctions is negative. This variable can significantly influence economic result of sanctions and, probably to a lesser degree, political one.

Prior relations between a sender and its target as one of political variables, here, concern only political relations. Sanctions can be imposed against rivals as well as allies. Though, it can be mainly done with negotiations, threats or even subtle sanctions. A target is less likely to follow demands of a rival or unfriendly country than of an ally. According to Hufbauer et al. (2007), there is a positive correlation between “cordial” political relations between a sender and its target and success of economic sanctions. This variable is irrelevant for economic outcome, but relevant for political.

Political regime is another variable meaningful for political impact of sanctions. Analysis of regimes in “Economic sanctions reconsidered” by Hufbauer et al. (2007) is made by “The Polity Project” and is based on specific dimensions, including “the influence relations between superordinate and subordinate strata; the degree of inequality between the strata; the institutional relations among superordinates; the competitiveness of recruitment to superordinate positions; the basis of political legitimacy”. The higher is the degree of democracy, the more likely a target to satisfy demands of a sender, especially when economic sanctions are causing damage to the whole country or when sanctioned behaviour is seen inappropriate. The determinant is insignificant for economic impact.

1.1.2. Economic Variables

Main determinant of the effectiveness of economic sanctions are *costs* imposed on a target country with implementation of sanctions. They can be inflicted in form of lost export markets or critical imports, lower prices for embargoed exports or higher prices for substituting imports, loss of foreign capital or loss of foreign assets for specific individuals. It is necessary to compare costs with economy of a target country. There is a positive correlation between the cost imposed with economic sanctions and their effect.

The costs depend on several economic variables: economic health and size of a target, trade linkages, including prior relations with sender(s) and relations with other countries as well as type of economic sanctions in place.

If a target has instable economic situation or bad *economic health* then economic sanctions are likely to inflict severe damage on a target. Same may hold true in opposite way. Economic health can be measured by key macroeconomic indicators like GDP growth, inflation, interest

rate, unemployment, GDP per capita, current account balance etc. So there is negative correlation between economic health of a target and effect of economic sanctions.

Cost amount is also influenced by *relative country sizes* and *economic linkages*. If a target is small compared to a sender and is dependent on it for trade and capital inflow then sanctions will have a drastic impact. With more intensive economic relations cost imposed grows. At the same time, economic ties with countries which have not introduced any measures can decrease costs for a target if these countries are able to substitute some export consumption, imports or capital. Second characteristic of trade linkages is connected with international assistance to a target country. International assistance can take form of new agreements, while trade linkages also include already existing. The strength of economic relations between a sender and its target has positive effect on success of economic sanctions, while it is opposite for economic links between a target and other countries not imposing economic measures.

Another variable essential for analysis is *type of sanctions*. Three types presented earlier are trade, financial and “smart” sanctions. As their mechanisms are distinct, their effects vary too. Empirical research by Hufbauer et al. (2007) shows that economic cost of sanctions was on average higher from financial sanctions than from trade restrictions. The reasons were discussed prior. The effect of “smart” measures is rather difficult to measure as it does not directly hurt the economy of a target. Moreover, “smart” sanctions are usually used together with other types.

1.3. Effectiveness of Economic Sanctions

Variety of theories exists on how to measure the effectiveness of economic sanctions. Most scholars argue that success should be evaluated based on the extent to which goals of sanctions are achieved. Though, many sanctions are imposed in order to express discontent which makes it difficult to measure their effectiveness based on aims. Generally, the effect of sanctions can be evaluated based on how a target changed its behaviour and whether it satisfied the demands of a sender, which is purely a political variable, inappropriate for economic analysis. Pape (1997) defines success more narrowly. A target must meet substantial part of claims imposed on it in the absence of other external pressures for change. Changes in policies or even regime changes are seen as success too. However, empirical data shows that sanctions were effective only in few cases as it is pointed out by Askari (2003)¹⁰. At the same time, according to Baldwin (1985), if sanctions do not alter the political conduct

¹⁰Cited in KAEMPFER, LOWENBERG (2007)

of a target, they can have effect by damaging international reputation of a target or linking costs with specific action. Furthermore, Cortright and Lopez (2000)¹¹ also see effectiveness beyond the change in political behaviour, but rather in contraction of resources for the government. The reduction of resources can be seen as economic financing or taxes.

Based on two last point of views presented above, I will evaluate the success of sanctions in form of economic costs from lost trade, adjustment of prices of export, import or capital. Main macroeconomic indicators will be analysed to see how the economy was affected. Moreover, gravity model is used to see whether there was an impact of sanctions on the Russian economy.

¹¹Cited in KAEMPFER, LOWENBERG (2007)

2. Economic Sanctions against and by Russia in Connection to the Ukrainian Crisis

2.1. Historical Background

Ukrainian crisis started in late November 2013, when President Viktor Yanukovych suspended preparations for trade agreement with EU. This event was followed with demonstrations and finally clashes between protesters and the government. In February demonstrators managed to take control of administration buildings and President Yanukovych fled the country. The coup resulted in growing unrest in other parts of Ukraine. Late February 2014 the Pro-Russian armed men took over the administrative buildings in the Crimean capital. On 1st March President Vladimir Putin was enabled by the Parliament to use force in Ukraine to defend Russian interests and sent troops to Crimea.¹² On 16th March referendum was conducted in Crimea and Sevastopol on whether the regions should join Russia as its new federal constituent entities or stay parts of Ukraine. More than 95% of voters both in Crimea and Sevastopol voted for annexation to Russia, which was ratified first by the Parliaments of Crimea and Sevastopol. Later, President Putin and leader of both subjects signed the relative treaties on the accession.

This event entailed considerate reaction from international community. During the General Assembly of UN on 27 March 100 countries voted for recognition of Ukrainian political and territorial sovereignty and against acceptance of Crimean referendum. Importantly, the first round of sanctions was imposed by the USA, EU and Canada on 17th March, right after the referendum, which is composed of travel bans and asset freezes on some officials from Russia and Ukraine. Though, the European Union suspended negotiations on visa-free arrangement and new base cooperation on 6th March. The EU promised that “any further steps by the Russian Federation to destabilise the situation in Ukraine would lead to additional and far reaching consequences for relations in a broad range of economic areas between the EU and the Russian Federation”¹³, which took place before the annexation of Crimea. The EU assured that in this case during the second stage measures against the individuals responsible for

¹²*Directive Of The Federation Council From 1 March 2014 № 48 “On Use Of Military Forces Of The Russian Federation In The Territory Of Ukraine.* In: US Federal Register: Federal issue № 6323[online]. Washington, DC: RG ONLINE, 2014 [2015-09-26]. Available at: <http://www.rg.ru/2014/03/05/voyska-dok.html>

¹³*EU Sanctions Against Russia Over Ukraine Crisis*[online]. Brussels: EU Newsroom, 2014 [2015-09-26]. (Available at: http://europa.eu/newsroom/highlights/special-coverage/eu_sanctions/index_en.htm)

destabilization in Ukraine would be implemented. They would be followed by trade, financial and other restrictions. On 17th March the EU stepped into the second stage and put into action the sanction list of 21 people. The USA joined with its own list of 11, while Canada – with 7 Russian officials. They were followed by Japan on 18th March, which halted consultations on relaxation of visa requirements as well as negotiations on investment, outer space exploration and dangerous military conflict prevention agreements. Switzerland also postponed discussions on free-trade zone with Russia.¹⁴ Moreover, it ceased issues of permits on military goods export.

Over 2014 and 2015 sanctions were expanded, especially in 2014. The second round took place in April and May with worsening situation in the east of Ukraine and declaration of independence in Donetsk and Luhansk. Importantly, the EU froze assets of two Crimean companies “Chernomorneftgas” and “Feodosia” (oil supplier) besides adding 28 officials from Russia, Crimea and Sevastopol.¹⁵ The USA implemented the most sanctions during this period. They included 7 officials and 17 companies from Russia such as banks “Sobinbank” and “SMP bank”, “Transoil” and others.¹⁶ Sanctions were also imposed against Crimean officials and Crimean Company “Chernomorneftegaz” (oil and gas exploration in Crimea). Cooperation between NASA and Roskosmos as well as between Department of Energy of the USA and “Rosatom” in nuclear energy usage. Canada followed the USA closely. Switzerland put restrictions on financial operations towards more 17 officials of Russia. For example, these denied persons were banned from transferring their assets to Switzerland from non-EU countries and from entering the country. New restrictions also included two Crimean companies.¹⁷

The next round is connected to Malaysia Airlines Boeing 777 catastrophe in July 2014. The aircraft crash was believed by the West to be caused by pro-Russian soldiers, who could have been supported by Russia. The EU expanded the list for individuals and companies. Notably,

¹⁴ *Swiss Break Off Free-Trade Talks With Russia* [online]. Bern: Swiss Info, 2014 [2015-09-26]. (Available at: http://www.swissinfo.ch/eng/ukraine_swiss-break-off-free-trade-talks-with-russia/38197302)

¹⁵ *EU Strengthens Sanctions Against Actions Undermining Ukraine's Territorial Integrity* [online]. Brussels: Council Of The EU, 2014 [2015-09-26]. (Available at: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/foraff/142411.pdf)
Council Broadens EU Sanctions Regarding The Situation In Ukraine [online]. Brussels: Council Of The EU, 2014 [cit. 2015-09-26]. (Available at: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/foraff/142559.pdf)

¹⁶ *Ukraine-Related Designations: Specially Designated Nationals List Update* [online]. Washington, D.C.: US Department of the Treasury Online, 2014 [2015-09-26]. (Available at: <https://www.treasury.gov/resource-center/sanctions/OFAC-Enforcement/Pages/20140428.aspx>)

¹⁷ *Situation in the Ukraine: Measures Update April 14th* [online]. Bern: State Secretariat for Economic Affairs SECO, 2014 [2015-09-29]. (Available at: <https://www.admin.ch/opc/de/classified-compilation/20140853/index.html>)

it proceeded to the third stage of sanctions with restrictions on export from EU to Russia as well as from Russia to EU of military and double-use goods and technologies. Moreover, it restrained selling of technologies for oil industry.¹⁸ The USA included such significant companies like “Vnesheconombank”, “Gazprombank”, “Rosneft” and “Kalashnikov” in sanction list. Defence and military enterprises were banned from contacts with the USA and their assets in American banks were frozen. Other companies were prohibited from medium and long-term financing of more than ninety days.¹⁹ Canada and some other countries followed the same strategy.

2.2. Economic Sanctions against Russia

It is important to outline most important economic sanctions against Russia, which will be presented up to the year 2016.

2.2.1. *The USA:*

The USA sanctions are targeted at the financial services, energy, military and defence sectors as well as individuals. The measures include ones imposed by the OFAC, by the US Department of Commerce, Bureau of Industry and Security, the US Department of State and Directorate of Defence Trade Controls.

OFAC issued four Directives imposing economic sanctions. Directive 1 is targeted at the financial sector and bans transactions, financing or any activities with new debt with maturity more than 30 days and equity for individuals of the SSI List (the Sectoral Sanctions Identifications). Directive 2 prohibits transactions, financing or any activities with new debt with maturity more than 90 days for individuals of the SSI list under Directive 2 and equity for individuals of the SSI list under Directive 1 in the energy sector. Directive 3 is focused on defence and military section, including similar measures against individuals of the SSI list under Directive 3. Directive 4 adds sanctions in the energy sector with export or re-export of goods, services (except for financial) and technology for deep-sea, Arctic offshore and shale oil exploration and production.

¹⁸ *EU Restrictive Measures In View Of The Situation In Eastern Ukraine And The Illegal Annexation Of Crimea* [online]. Brussels: EU Newsroom, 2014 [2015-03-29]. (Available at: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/foraff/144159.pdf)

¹⁹ *Directive 1 And 2 Pursuant To EO 13662* [online]. US Department Of The Treasury, 2014 [2015-03-29]. (Available at: https://www.treasury.gov/resource-center/sanctions/Programs/Documents/EO_13662_directives.pdf)

Bureau of Industry and Security amended the Export Administration Regulations to include licencing requirement for the USA export to Russia of certain items for deep-sea, Arctic offshore or shale oil exploration and production. Later, it prohibited export of these products. Licencing measures were applied for military goods.

Directorate of Defence Trade Controls has put restriction on licences and licence revoke for the export of defence goods and services to Russia.

More than 95 Russian and Ukrainian individuals, mainly officials, businessmen and public figures, are included in the sanction list.²⁰ They are subject to assets freezing in the territory of the USA and are banned from business relations with American citizens and from acquisition of visa. Such businessmen like Genadiy Timchenko, who owns around 80% of stocks in Transoil; Yuriy Kovalchuk (chairman of the board of “Rossiya” bank), Arkadiy and Boris Rotenberg (co-founders of “Stroygasmontazh”, large gas pipeline construction company, and “SMP bank”), ones of the richest people in Russia were included into the list. Individuals under sanctions are said to be closely related to Russian policy making. Furthermore, any trade activities with assets of companies in which more than 50% of stocks belong to denied persons are prohibited.

Around 64 Russian and Ukrainian companies, banks and entities²¹ are subject to economic sanctions. In financial industry banks and investment companies lost access to financing of longer than 30 days and other business contacts. Equity of these companies became non-tradable. Such banks like “Sberbank”, “Gazprombank”, “Rosselkhozbank”, “Vnesheconombank”, “VTB” and “Sobinbank”, mostly largest ones, were included into sanction list. In energy sector financing is restricted for specific companies. Financing or any activities with new debt with maturity longer than 90 days and purchases of equity are restricted. Some companies like “Gazpromneft” and “Transneft” are not able to acquire debt financing even with maturity of more than 30 days. Financing of longer than 30 days to military and defence companies from the list is limited as well.

Moreover, export of goods, services and technologies for deep-sea, Arctic offshore and shale oil exploration and productions from the USA to Russia became illegal. The USA expanded licensing regulations for USA export of military and defence goods and services to Russia.

²⁰*All Sanction of the West against Russia*. In: ITAR-TASS News Agency[online]. Moscow: ITAR-TASS News Agency, 2015 [2015-10-02]. (Available at: <http://tass.ru/mezhdunarodnaya-panorama/1055587?page=2>)

²¹*All Sanction of the West against Russia*. In: ITAR-TASS News Agency [online]. Moscow: ITAR-TASS News Agency, 2015 [2015-11-10]. (Available at: <http://tass.ru/mezhdunarodnaya-panorama/1055587?page=2>)

What is more, any export from the USA to Crimea or import from Crimea to the USA of goods and services as well as American investment into Crimea are prohibited.

2.2.2. The European Union

The EU states the aim of its economic sanctions as to make Russia “actively contribute and without ambiguities find a solution to the Ukrainian crisis”. The EU is concentrating on helping Ukraine to solve the crisis and “ensure a stable, prosperous and democratic future for all its citizens”.²² Economic sanctions were prolonged until 31 July 2016.²³

EU economic measures are enforced by the Council of EU through Council decision together with additional necessary legislation. Arms embargo and travel bans need to be implemented by member states together with Council decision. At the same time, asset freezes and export restrictions require Council regulation as these sanctions are within the competence of the European Union. Council regulation is developed on account of joint proposal from the EU High Representative for Foreign Affairs and Security Policy and the European Commission. The regulation is binding for all EU citizens and businesses.

The EU distinguishes between diplomatic, restrictive (asset freezes and visa bans), sectoral and economic cooperation measures.

149 individuals, together with some Crimean and Ukrainian officials, and 37 entities are currently²⁴ included in the sanction list of restrictive measures. Asset freezes and visa bans are applied against persons, most of whom are Russian and Ukrainian state officials. The individual sanction list also contains several businessmen as for example Arkadiy Rotenberg, Yuriy Kovalchuk and Nikolai Shamalov (co-owner of “Rossiya” bank). The entities fall under asset freezes in the EU. 23 entities are political public enterprises. The rest are non-political either public or private companies. For example, “Chernomorneftegaz”, “Feodosia”, both Crimean companies, “Almaz-Antey” (state-owned anti-aircraft weaponry company in Russia) and “Russian national commercial bank”.

The Crimea region is subject to several restrictions: bans on import on goods produced in Crimea or Sevastopol; investment into Crimea including financing, service or purchase of real estate or entities; provision of tourism-related services; export of goods and technology for the

²²*EU Sanctions Against Russia Over Ukraine Crisis*. EU Newsroom[online]. Brussels: EU Newsroom, 2015 [2015-11-10]. (Available at: http://europa.eu/newsroom/highlights/special-coverage/eu_sanctions/index_en.htm)

²³*Russia: EU Prolongs Economic Sanctions By Six Months*. EU Newsroom [online]. Brussels: EU Newsroom, 2015 [2015-12-10]. (Available at: <http://www.consilium.europa.eu/en/press/press-releases/2015/12/21-russia-sanctions/>)

²⁴16th January 2016

transport, telecommunications, energy or oil, gas, mineral resources companies to Crimean companies or for use in Crimea; services for infrastructure building in Crimea.

Sectoral measures include financial, export and import restrictions and licensing indefence, energy and financial industries. Purchases and sales of new bonds, equity or other financial instruments as well as loans with maturity longer than 30 days of five large state-owned Russian banks are prohibited for EU citizens and businesses. The banks under sanctions are “Sberbank”, “VTB bank”, “Gazprombank”, “Vnesheconombank” and “Rosselkhozbank”. Similar restrictions are applied to three Russian energy and three defence companies. These entities are “Rosneft”, “Transneft”, “Gazprom neft” (energy) and “OPK Oboronprom”, “United aircraft corporation”, “Uralvagonzavod” (defence). Their subsidiaries are also subject to same regulations.

Moreover, energy-related goods and technology for export require licenses. It is prohibited to supply energy goods, services and technology for deep-sea, Arctic offshore and shale oil exploration and production. In the defence industry export and import of arms and related materials from or to Russia are banned. The EU also prohibits export of dual-use goods and technologies.²⁵

2.2.3. Canada

Economic sanctions against Russia are enforced through the Special Economic Measures Act as a response to “Russia’s violation of the sovereignty and territorial integrity of Ukraine”.²⁶

Sanction list includes 91 individuals who are subject to asset freezes. Moreover, any economic activities with property of these persons, financial services and goods cannot be provided to them by Canadian citizens. The list mostly contains Russian officials and public figures, but also contains some businessmen, owners or senior officials of entities under sectoral economic sanctions, as for example Arkadiy and Boris Rotenberg. Economic sanctions also incorporate 42 enterprises in defence, finance, energy and manufacturing industries as for example “Rossiya” bank, “SMP Bank”, “Stroygasmontazh”, “Kalashnikov Concern” and “OPK Oboronprom”. These entities have no longer an access to financing through bonds, loans or other financial instruments, including new equity, with maturity longer than 30 days. Another 6 energy companies are subject to restrictions on same financial

²⁵*EU Sanctions Against Russia Over Ukraine Crisis*. EU Newsroom[online]. Brussels: EU Newsroom, 2015 [2015-12-20]. (Available at: http://europa.eu/newsroom/highlights/special-coverage/eu_sanctions/index_en.htm)

²⁶*Canadian Sanctions Related to Russia*. Global Affairs Canada [online]. Ottawa: Global Affairs Canada, 2015 [2016-01-16]. (Available at: <http://www.international.gc.ca/sanctions/countries-pays/Russia-Russie.aspx?lang=eng>)

instruments, excluding new equity, but with maturity longer than 90 days. Such enterprises are “OAO Novatek” (gas producer), “Rosneft”, “Gazprom”, “Gazprom нефт”, “Surgutneftegas” and “Transneft OAO”. Moreover, goods, services and technology for deep-sea, Arctic and shale oil exploration and production are prohibited from export.

2.2.4. Australia

Economic sanctions are implemented in several forms: restrictions on export and import of goods and services; commercial activities as well as targeted financial sanctions and travel bans.

115 individuals of Russian and Ukrainian origin, mostly officials or public figures, are subject to travel bans and targeted financial measures or asset freezes. Economic sanctions were also imposed against 35 entities, 26 out of which are non-political as for example “Rossiya” bank, “SMP Bank”, “Stroygasmontazh” and “Transoil” (transportation of oil and oil products; part of “Volga group”). Financing to any of these enterprises is prohibited.

Moreover, goods, services and technology for any military-related activity cannot be exported to Russia. Arms and related materials from Russia are also banned from importation to Australia. Furthermore, export of any goods or services for deep-sea, Arctic offshore and shale oil exploration and production is restricted.

2.2.5. Switzerland

Economic sanctions by Switzerland are imposed as trade and financial restrictions as well as travel and financial measures against individuals.

Individual travel and financial regulations concern 85 officials and businessmen from Russia, Crimea and Sevastopol, including Arkadiy Rotenberg, Yuriy Kovalchuk and Nikolai Shamalov. They are prohibited from asset transfer and entry to Switzerland, the later one particularly because Switzerland is part of the Schengen Area. Entity list includes 32 Russian companies, with 6 banks, 4 oil and 12 military companies. For example, sanction list includes “Russian National Commercial Bank”, “Sberbank”, “VTB Bank”, “Gazprombank”, “Vnesheconombank”, “Rosneft”, “Transneft”, “Kalashnikov” and “Almaz Antey”. Loans and transfers of financial instruments of these entities must be licensed. Secondary trade and financial intermediary of these instruments should be reported.²⁷

²⁷ *Massnahmen zur Vermeidung der Umgehung internationaler Sanktionen im Zusammenhang mit der Situation in der Ukraine.* In: State Secretariat for Economic Affairs SECO [online]. Bern: State Secretariat for Economic

In relation to export and import, trade of specific double-use and military goods produced in Russia is prohibited. Switzerland also enforced license restraint on goods, services and technology for deep-sea, Arctic offshore and shale oil exploration and production. Speaking of Crimea and Sevastopol, imports from them as well as key exports, financing, trade with immovable property and companies and tourist service provision to these regions are banned.

2.2.6. Other Countries

Another important trade partner for Russia implemented economic sanctions is Japan. It used individual asset freezes and travel bans; financial restrictions on operations with assets and asset freezes for specific organizations.²⁸ Albania, Iceland, Norway and Montenegro joined the EU sanctions as its partners.²⁹

2.2.7. International Organisations

Diplomatic measures were implemented as a main instrument of international organisations against Russia. OECD postponed accession of Russia on 13 March 2014.³⁰ NATO suspended “all practical civilian and military cooperation” in April 2014.³¹ G8 ceased Russian membership in March 2014.³²

In July 2014 the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD) agreed to European Council to suspend financing of new operations.³³ The EIB provided Russia with loans of €1.044 billion in 2013, mainly

Affairs SECO, 2014 [2016-01-16]. (Available at: <https://www.secolive.admin.ch/themen/00513/00620/00622/05405/index.html?lang=de>)

²⁸ *Statement by the Minister for Foreign Affairs of Japan on the Sanctions against Russia over the situation in Ukraine* [online]. Tokyo: Ministry of Foreign Affairs of Japan, 2014 [2016-01-16]. (Available at: http://www.mofa.go.jp/press/release/press4e_000281.html)

²⁹ *Declaration By The High Representative On Behalf Of The EU On The Alignment Of Certain Third Countries Concerning Restrictive Measures In View Of Russia's Actions Destabilising The Situation In Ukraine*. In: Council of the EU, press release 621/15. Brussels: Council of the EU, 2015 [2016-01-16]. (Available at: <http://www.consilium.europa.eu/en/press/press-releases/2015/07/28-alignment-russias-action-destabilising-ukraine/>)

³⁰ *Statement By The OECD Regarding The Status Of The Accession Process With Russia & Co-Operation With Ukraine* [online]. Paris: OECD Newsroom, 2014 [2016-01-16]. (Available at: <http://www.oecd.org/newsroom/statement-by-the-oecd-regarding-the-status-of-the-accession-process-with-russia-and-co-operation-with-ukraine.htm>)

³¹ *NATO's Relations With Russia*. NATO Topics [online]. Paris: NATO, 2015 [2016-01-16]. (Available at: http://www.nato.int/cps/en/natolive/topics_50090.htm)

³² *G-7 Leaders Statement* [online]. Washington, D.C.: White House: Office Of The Press Secretary, 2014 [2016-01-16]. (Available at: <https://www.whitehouse.gov/the-press-office/2014/03/02/g-7-leaders-statement>)

³³ *EU Restrictive Measures In Response To The Crisis In Ukraine* [online]. Brussels: Council of the EU, 2015 [2016-01-16]. (Available at: <http://www.consilium.europa.eu/en/policies/sanctions/ukraine-crisis/>)

tobanks.³⁴The EBRD contributed €1.7 billion in 2013, €2.5 billion in 2012 and €2.8 billion in 2011 in the form of debt and equity financing, especially in industry, commerce and agricultural business.³⁵These are only economic measures enforced by international organisations, excluding the European Union.

2.3. Economic Sanctions by Russia

In response to sanctions imposed by countries mentioned previously, Russia enforced counter-measures.

Russia answered with travel bans on citizens of EU, USA, Canada and Japan. Full list and number of sanctioned individuals were not published. According to Foreign Ministry's spokesperson, the Ministry does not have intention to disclose the list³⁶. According to some sources, in May 2015 the sanction list of EU citizens was composed of 89 individuals.³⁷

Besides "smart" counter-sanctions, one-year embargo on imports of most agricultural products and raw materials originating from countries which "either enforced economic sanctions on Russian individuals and entities or joined such a decision" was implemented on 4th August 2014.³⁸ Sanctioned goods include meat products, fresh or processed; live fish, fish, crayfish and shellfish, excluding baby fish; milk and dairy products, excluding dietary and lactose-free; fruits and nuts; vegetables, excluding sowing crops; foodstuffs, excluding some supplements.³⁹ On 24th June 2015 Russia renewed the embargo for another year, till 6th August 2016.⁴⁰

³⁴ *Finance Contracts Signed - Eastern Europe, Southern Caucasus And Russia*. European Investment Bank: Projects Financed By Region [online]. Luxembourg: European Investment Bank, 2016 [2016-01-16]. (Available at: <http://www.eib.org/projects/loans/regions/cei/index.htm?start=2013&end=2013>)

³⁵ *EBRD Activity In Russia To Date: Annual Bank Investment And Number Of Projects*. EBRD: Russia Data. [online]. London: EBRD, 2016 [2016-01-16]. (Available at: <http://www.ebrd.com/where-we-are/russia/data.html>)

³⁶ *Moscow Not to Publish Sanction List of EU Officials* [online]. Moscow, Russia: ITAR-TASS News Agency, 2014 [2016-01-25]. (Available at: <http://tass.ru/en/russia/752467>)

³⁷ *Ministry of Foreign Affairs: Sanction List of Individuals Denied from Entry to Russia, - Response to the EU Sanctions* [online]. Moscow, Russia: REGNUM News Agency, 2015 [2016-01-25]. (Available at: <http://regnum.ru/news/polit/1929106.html>)

³⁸ *Resolution of the President of the Russian Federation from 6th August 2014 № 560 "On Implementation of Special Economic Measures to Safeguard the Russian Federation"*. In: Moscow, Russia: GarantLegislative News Agency, 2014, v. 2014, issue 560.

³⁹ *Decree of the Government of the Russian Federation from 25th June 2015 № 625 "On Modification of Decree of the Government of the Russian Federation from 7th August 2014 № 778"*. In: Moscow, Russia: Government of Russia, 2015, v. 2015, issue 625.

⁴⁰ *Decree of the President of the Russian Federation from 24th June 2015 № 320 "On Prolonging of Validity of Special Economic Measures to Safeguard the Russian Federation"*. In: . Moscow, Russia: Government of Russia, 2015, v. 2015, issue 329.

3. Impact of Sanctions on the Russian Economy

In this section impact of sanction on the Russian economy is analysed. Firstly, variables that increase or decrease the cost from sanctions for Russia are evaluated, including economic specifics of the Russian economy, relative sizes and prior economic ties between the countries that implemented sanctions and Russia, involvement of international organizations, international economic assistance and types of economic sanctions used. The effects of these variables are presented as contributing or diminishing the cost from economic sanctions for Russia. Secondly, Russian economy before the sanctions is considered through the overview of key macroeconomic indications for the period between 2011 and 2013. It is followed by similar analysis for 2014 and 2015. Furthermore, projections for 2016 and consequent years are presented. Lastly, the gravity model of trade is used to answer the hypothesis whether the economic sanctions have had an impact on the Russian economy.

3.1. Economic Variables Affecting the Cost of Sanctions for the Russian Economy

As it was presented in the theories of international sanctions, success depends on political and economic variables. Political variables are difficult to measure and are mainly relevant for the political outcome of sanctions. Thus, they are not used for the analysis, but rather economic variables. The success of sanctions is determined by costs imposed on the target, which depend on several economic variables: economic situation of a target country, relative sizes of sender(s) and the target, their economic linkages prior to sanctions, participation of international organizations in coordination of sanctions, international assistance in form of new trade agreements from third states and types of economic sanctions.

3.1.1. *Economic Situation of Russia*

Russia has the tenth largest economy in the world measured in GDP in 2013.⁴¹ However, it is more than nine times smaller than that of the USA and five times than of China. It is also behind Japan, Germany, the UK, France, Brazil, Italy and India. Speaking of foreign market

⁴¹ *Countries Ranking: Gross Domestic Product 2013*. World Bank[online]. Washington, D.C.: World Development Indicators, 2015 [2016-03-17]. (Available at: <http://databank.worldbank.org/data/reports.aspx?source=2&type=metadata&series=NY.GDP.MKTP.CD>)

trade size, Russia is the fifth largest country.⁴² The country owns one of the world largest proven crude oil reserves, following Venezuela, Saudi Arabia, Iran, Iraq, Kuwait and United Arab Emirates. In 2013 in export of crude oil and petroleum products Russia was second after Saudi Arabia. Russia has largest proved reserves of natural gas and was the largest dry natural gas exporter in 2013.⁴³ It also possesses significant reserves of metals and timber as well as estimated reserves of rare earth elements. The country also has low government debt. According to the US Central Intelligence Agency, estimated public debt as % of GDP was one of the lowest in the world in 2015.⁴⁴ However, in spite of being among the largest economies of the world with mentioned above strengths, it is noted to have significant problems.

One of problems is dependence on export of oil and gas, with 74.5% of total goods export revenues to the Western countries in 2013.⁴⁵ As oil prices have been falling, exchange rate of rouble, Russia's GDP and export values have been following the trend. Such dependence leads to economic volatility as commodity prices are changing. According to the analysis by Stanisław Gędek in 2013, the rouble has been fluctuating together with oil prices, indicating symptoms of Dutch Disease.⁴⁶ The symptoms include decline of manufacturing and agricultural production, fluctuations of local currency together with natural resources' prices or increased exchange rate volatility, rent-seeking behaviour and falling private and public incentives to save and invest. Though, Russia is said to have somewhat different symptoms, which lead to a term "Russian Disease".⁴⁷ The term means strong and positive correlation of oil prices and GDP growth as well as oil prices and manufacturing growth. Nevertheless, dependence on oil exports leads to economic instability. The problem was frequently mentioned by the government. However, with high oil prices in 2000s and, therefore, high oil revenues, it was not properly addressed. Other industries are underdeveloped. For example, Russian manufacturing output in equalled to \$138 billion and was ranked as 15th largest in the

⁴² *Global Competitiveness: the Russian Federation*. World Economic Forum [online]. Cologny: World Economic Forum, 2015 [2016-03-17]. (Available at: <http://reports.weforum.org/global-competitiveness-report-2015-2016/economies/#economy=RUS>)

⁴³ *Annual Statistical Bulletin 2014: Oil and Gas Data*. OPEC [online]. Vienna: OPEC, 2014 [2016-03-22]. (Available at: <http://www.opec.org/library/Annual%20Statistical%20Bulletin/interactive/current/FileZ/Main.htm>)

⁴⁴ *Country Comparison: Public Debt* [online]. Washington, D.C.: US Central Intelligence Agency, 2015 [2016-03-22]. (Available at: <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2186rank.html>)

⁴⁵ *Export-Import Of Major Goods For January-December 2013* [online]. Moscow: Federal Customs Service of the Russian Federation, 2014 [2016-03-22]. (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18884:-2014-&catid=53:2011-01-24-16-29-43&Itemid=1981)

⁴⁶ GĘDEK, S. *Ruble Exchange Rate and Oil Price. Does Russian Economy Shows Symptoms of Dutch Disease?* In: 8th Pan-European Conference on International Relations. Warsaw, 2013.

world in 2013,⁴⁷ while based on global manufacturing competitiveness index by Deloitte Russia is ranked 28th.⁴⁸ Underdevelopment can explain relatively high import dependence. Machinery, equipment and vehicles constitute around 50% of all Russian imports from the West.⁴⁹

Another weakness is insufficient institutional framework. According to the World Economic Forum and Competitiveness Report for 2014-2015, it is the main barrier for the competitiveness of Russia. Efficiency of public and private institutions is low. There is also low trust in independence of judiciary as well as high level of corruption and favouritism. As a result, there is a high level of uncertainty with public policy, which can negatively affect the business planning and investment.⁵⁰

Furthermore, Russian economy was characterized as “rent-dependent” or “rent management system”.⁵¹ Allocation of rents is said to be important for resource –abundant countries. Thus, the rent management system is the system that controls how rents are distributed in the state. In the strong system rents are allocated to the leadership. In Russia the rent management system is strong, but is based on informality. There are three market sectors: rent-creating, rent-dependent and a private sector. Rent-creating sector is comprised of the oil and gas industry, while rent-dependent are enterprises that do not have profits and/or are inefficient, but are important for the government – mainly defence industry. Rents from the oil and gas industry are invested into rent-dependent enterprises or “addicts”⁵² in order to save jobs and already used capital. The rent management system leads to the retention of inefficient industries and enterprises as well as the limitation of production factors for the private sector. Hence, it inhibits the development of the private sector. The system also does not support strong institutional framework as the rent-dependent sector would be under threat. Institutional reform would restrict the ability of the government to allocate rents.

⁴⁷RHODES, C. *Manufacturing: international comparisons*. London: House of Commons Library, Briefing Paper, p. 4, 2015.

⁴⁸2013 *Global Manufacturing Competitiveness Index*. Washington, D.C.: Deloitte Touche Tohmatsu Limited, U.S. Council on Competitiveness, 2013, p. 2, table 1.

⁴⁹*Structure of Foreign Import for 2013* [online]. Moscow: Federal Customs Service of the Russian Federation, 2014 [2016-03-28]. (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18874:-2013-&catid=52:2011-01-24-16-28-57&Itemid=1978)

⁵⁰*Global Competitiveness Report 2014-2015*. Cologny: World Economic Forum, 2014, pp 320-321. ISBN-13: 978-92-95044-98-2.

⁵¹GADDY, C.G. a B.W. ICKES. Russia after the global financial crisis. *Eurasian Geography and Economics*. 2010, **2010**(51), 282–311.

⁵²Olsson and Oxenstierna (2015), p. 38.

Additionally, the Russian financial system is relatively weak and unstable. The domestic banking sector lacks diversification as it mostly consists of large consolidated enterprises and relies on short-term funding. The capital market is underdeveloped with insufficient long-term investor base and long-term securities. Financing through local equity market is also low. Availability of financial services is insufficient as well. Though, the banking system is relatively resilient to external shocks, except shocks in capital flows. Importantly, financial market lacks trustworthiness and confidence, especially for banks, which is caused by low transparency, deficient financial reporting and high perception of corruption. The Central Bank of Russia also has limited authority in supervision of banking sector. Inefficient and untrustworthy financial market leads to low investment, innovation and, thus, economic growth.⁵³

Altogether, these weaknesses lead to slow down of economy already in 2013. Economic sanctions and oil prices pushed the economy down further. As it was said by Alexei Kudrin, former Minister of Finance, the Russian economy is not prepared for such challenges. Speaking of import substitution policy, he stated that the Russian companies will take advantage of rising prices of imported goods. Eventually they may reinvest and only in five or ten years start producing goods similar to Western.⁵⁴

3.1.2. Relative Sizes of the Senders and Russia

The relative sizes of the senders and Russia are compared in nominal GDP in 2013. The EU is analysed as one country.

The Russian Federation economy was 10th largest in the world with GDP of around \$2 trillion in 2014.⁵⁵

The EU was the first largest economy in the world with nominal GDP equal to \$18 trillion. It was followed by the US with GDP of \$16.8 trillion. Japan, the fourth largest economy, with GDP of \$4.9 trillion implemented some sanctions as well. Canada and Australia followed Russia in terms of nominal GDP, having \$1.8 and \$1.6 trillion, respectively. Switzerland was ranked 21st with GDP of \$0.7 trillion.

⁵³ *Russian Federation: Financial System Stability Assessment: IMF Country Report*. Washington, D.C.: International Monetary Fund, 2011, **2011**(11/291).

⁵⁴ *Kudrin: Main problem – absence of trust in politics* [Online]. Moscow: RBC [2016/03/22] (Available at: <http://www.rbc.ru/interview/economics/12/01/2015/54b2557e9a794738fd73a3ff>)

⁵⁵ *Countries Ranking: Gross Domestic Product 2013*. World Bank [online]. Washington, D.C.: World Development Indicators, 2015 [2016-03-17]. (Available at: <http://databank.worldbank.org/data/reports.aspx?source=2&type=metadata&series=NY.GDP.MKTP.CD>)

The relative sizes of senders are significant if compared to Russia. However, trade connections should be analysed for the full picture.

3.1.3. Economic relations between the sending countries and Russia prior to the economic sanctions

Economic relations of Russia are analysed in relation to the EU, USA, Canada, Australia and Norway as these countries are targets of the Russian embargo. However, the focus is on the EU and the USA as the senders with largest economies. The economic relations include export and import of goods and services, cross-border investment and economic cooperation. The summary of economic relations of Russia with these countries is presented in the Table 1 below.

The EU is the first trading partner of the Russian Federation, while Russia is the third of the EU. The trade between the EU and Russia in goods in 2013 was \$418 billion, which comprises almost 50% and 10% of foreign trade in goods of Russia and the EU, respectively. Exports of goods from Russia to the EU were equal to around \$283 billion, which amounts to around 54% of total Russian exports and 13% of total EU imports.⁵⁶ The export from Russia to the EU consisted mainly of mineral products or 78% of Russian exports to the EU.⁵⁷ Imports of goods from the EU to Russia were equal to around \$134 billion in 2013, which is more than 42% of total Russian imports, but only 6% of total EU exports.⁵⁷ The import from the EU to Russia in 2013 was mainly machinery (32%), transport equipment (16%) and chemicals (14%), while agricultural and fishery products were equal to 10%.⁵⁸ Speaking of trade in services, it amounted to \$84.7 billion or 43% and 5.5% of total foreign trade in services of Russia and the EU, respectively. The export of services from Russia to the EU was equal to \$27.9 billion, which makes 40% of total Russian service export and 4% of total service EU imports. Main services exported from Russia to the EU were transport (25%), professional and consulting service in management (18%) and travel (17%). Import of services amounted to \$56.8 billion, equal to 44% of total Russian service import and 7% of total EU service export. Main services imported by Russia from the EU were travel (44%); technical, trade-related and other business services (15%). The imports of services from the EU into Russia

⁵⁶ *External Trade of the Russian Federation with Primary Countries for the Period January-December 2013*. Russian Federal Statistics Service [online]. Moscow: Russian Federal Statistics Service, 2014 [2016-04-01]. (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18871:-2013-&catid=125:2011-02-04-16-01-54&Itemid=1976)

⁵⁷ *European Union, Trade in goods with Russia* [online]. European Commission, 2016, 2016 [2016-04-01]. (Available at: http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113440.pdf)

are significantly higher than the exports.⁵⁸ Furthermore, the EU was the most important investor in Russia in 2013, with \$197 billion of FDI inward stock from the EU, which comprises 35% of the Russian inward stock and 1.8% of the EU outward stock. The FDI stock of EU from Russia is more than four times smaller, which makes 0.5% of the EU inward FDI stock and 9.6% of the Russian outward FDI stock.⁵⁹ The economic cooperation between these two countries has started with the Partnership and Cooperation Agreement in 1997. The agreement seeks to promote trade, investment and harmonious relations. There is ongoing EU-Russia cooperation on four policy areas or “Common Spaces”: economy and the environment; freedom, security and justice; external security and research and education. The cooperation is based on common initiatives in these areas, which are concluded on an ongoing basis. The initiatives, for example, include Partnership for Modernisation, which covers economic, technical aspects as well as the rule of law; negotiations on Euratom-Russia Nuclear Agreement; alignment of technical and phytosanitary regulations and standards. The establishment of four Common Spaces has been going on since 2003. However, with the sanction, most of negotiations on four Common Spaces and New EU-Russia Agreement were suspended.⁶⁰

The economic ties between Russia and *the USA* are relatively weak, even though the USA is one of the major players in the international trade. In 2013 trade in goods with Russia was equal to mere \$27.6 billion, which makes around 3% and 0.7% of total foreign trade of Russia and the USA, respectively. Export of goods from Russia to the USA in 2013 was equal to \$11.1 billion, comprising 1.3% and 0.5% of total export of Russia and total import of goods of the USA, respectively.⁶¹ Russian exports to the USA were mostly mineral fuels, comprising 72%. Russia also exported iron and steel (14%) and inorganic chemicals (9%).⁶² Import from the USA into Russia in 2013 amounted to \$16.5 billion, which is equal to 5% of total import of goods of Russia and 1% of total export of goods of the USA.⁶² Russian imports from the USA were mainly comprised of aircraft, machinery and vehicles of around 63% of total

⁵⁸ *External Trade in Services of the Russian Federation 2013*. Central Bank of the Russian Federation. Moscow, Russia: The Central Bank of the Russian Federation, Statistics Department, 2014.

⁵⁹ *Stocks Broken Down by Instrument and Country (directional principle)*. Moscow, Russia: The Central Bank of the Russian Federation, 2016.

⁶⁰ *EU Relations with Russia* [Online]. Brussels: European Union External Action [2016/03/22] (Available at: http://eeas.europa.eu/russia/about/index_en.htm)

⁶¹ *External Trade of the Russian Federation with Primary Countries for the Period January-December 2013*. Russian Federal Statistics Service [online]. Moscow: Russian Federal Statistics Service, 2014 [2016-04-01]. (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18871:-2013-&catid=125:2011-02-04-16-01-54&Itemid=1976)

⁶² *Foreign Trade of Russia with USA*. Integrated Foreign Economic Information Portal [online]. Moscow, 2016 [cit. 2016-04-26]. (Available at: http://www.ved.gov.ru/exportcountries/us/us_ru_relations/us_ru_trade/)

Russian imports from the USA. Russia also imported chemical (10%), agricultural and food products (9%).⁶³ Trade in services between Russia and the USA was equal to \$10.9 billion, comprising 5.5% and 1% of total service trade of Russia and the USA, respectively. The export of services from Russia to the USA in 2013 amounted to \$4.3 billion, making 6% of total export of services of Russia and mere 0.9% of total import of services of the USA. The most important areas of services exported were technical, trade-related and other business services (30%) and telecommunication, computer and IT services (23%). The import of services from the USA to Russia in 2013 was equal to \$6.6 billion, which amounted to 5% of total import of services of Russia and 1% of total export of services of the USA. The most important services imported were travel (23%), technical, trade-related and other business services (23%) and charges for the use of intellectual property (20%).⁶³ Importantly, the import of services from the USA into Russia is significantly higher than the exports. Speaking about the investment ties, they are relatively weak as well. The USA FDI stock in Russia was equal to \$18.6 billion in 2013, which is equal to 3% of inward FDI stock in Russia and mere 0.3% of outward FDI stock of the USA. The Russian FDI stock in the USA was equal to \$21.5 billion in 2013, 4.5% of Russian outward FDI stock and 0.7% of the US inward FDI stock.⁶⁴ The economic relationship between the USA and Russia is based on the WTO regulations. They also have signed a BIT in 1992, which is not in force.⁶⁵ Furthermore, Russia is eligible to the MFN status.⁶⁶ In 2012 the Intellectual Property Rights (IPR) Action Plan was agreed by the US and Russia with the aim to improve IPR protection and enforcement.

Canada and Russia have rather strong economic ties. Russia has been a priority market under the Global Markets Action Plan, however, was excluded due to sanctions implemented. Though, trade volumes are much lower than those with the EU and the USA. In 2013 total trade between Russia and Canada was equal to \$2.3 billion, which comprises 0.3% and 0.25% of Russian and Canadian foreign trade, respectively.⁶⁷ Export from Russia to Canada amounted to \$0.5 billion, which was mainly comprised oil and oil products (32%), fertilizers

⁶³ *External Trade in Services of the Russian Federation 2013*. Central Bank of the Russian Federation. Moscow, Russia: The Central Bank of the Russian Federation, Statistics Department, 2014.

⁶⁴ *Stocks Broken Down by Instrument and Country (directional principle)*. Moscow, Russia: The Central Bank of the Russian Federation, 2016.

⁶⁵ *Investment Policy Hub: the Russian Federation (International Investment Agreements)* [Online]. Geneva: UNCTAD [2016/03/23] (Available at: <http://investmentpolicyhub.unctad.org/IIA/CountryBits/175>)

⁶⁶ *MFN Countries*. [Online]. Washington, D.C.: US International Trade Commission [2016/03/23] (Available at: https://dataweb.usitc.gov/scripts/trade_program/trade_program_group.asp?country_group=NTR)

⁶⁷ *External Trade of the Russian Federation with Primary Countries for the Period January-December 2013*. Russian Federal Statistics Service [online]. Moscow: Russian Federal Statistics Service, 2014 [2016-04-01]. (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18871:-2013-&catid=125:2011-02-04-16-01-54&Itemid=1976)

(17%), precious stones and metals (9%) and rubber products (9%). Russian import from Canada was equal to \$1.8 billion. Russia imported mostly nuclear equipment and machinery (27%), meat products (19%) and aircraft equipment (11%).⁶⁸Trade in services in 2013 between the two countries was equal to \$0.7 billion. Export of services from Russia to Canada amounted to almost \$0.4 billion, mainly transport (30%) and travel (20%). Import of services from Canada to Russia comprised almost \$0.4 billion. Main categories of services imported were technical, trade-related and other business services (33%), transport (19%) and travel (16%).⁶⁹Speaking of FDI, Russian inward FDI stock from Canada in 2013 was equal to \$0.2 billion, while Canadian inward FDI stock from Russia in 2013 was equal to \$1.7 billion.⁷⁰Canada and Russia has been cooperating in variety of areas, including aerospace, agriculture, oil and gas, mining, air transportation, nuclear cooperation and others. The economic relations between Russia and Canada are based on several agreements, including Canada-Russian Federation Foreign Investment Promotion and Protection Agreement since 1991, Agreement on Trade and Commercial Relations since 1992, Capital Goods and Services Deliveries since 1992, Economic Cooperation since 1993, Double Taxation since 1995 and others. Importantly, economic and trade cooperation has been further negotiated within Russian-Canadian Intergovernmental Economic Commission (IEC) since 1993 and Russian-Canadian Business Council (CRBC) since 2005.

Norway and Russia have relatively strong economic ties. Speaking of trade in goods, it amounted to \$2.6 billion in 2013, which is above bilateral trade between Canada and Russia in the same year. Total trade between Russia and Norway comprised 0.3% and 1% of Russian and Norwegian foreign trade in goods in 2013. Export from Russia to Norway amounted to \$0.8 billion.⁷¹ Main categories of goods exported were oil and oil products (33%), nonferrous metals (24%) and plant oil and butter (10%). Import from Norway to Russia was equal to \$1.8 billion. Main category was fish, clams and shellfish (76%).⁷² Trade in services amounted to \$1.1 billion in 2013, which is also higher than trade in services between Russia and Canada.

⁶⁸*Foreign Trade of Russia with Canada*. Integrated Foreign Economic Information Portal [online].Moscow, 2016 [2016-04-01].(Available at:

http://www.ved.gov.ru/files/images/Canada/Review_of_trade_relations_with_the_Russian_Federation.pdf)

⁶⁹*External Trade in Services of the Russian Federation 2013*.Central Bank of the Russian Federation. Moscow, Russia: The Central Bank of the Russian Federation, Statistics Department, 2014.

⁷⁰*Stocks Broken Down by Instrument and Country (directional principle)*. Moscow, Russia: The Central Bank of the Russian Federation, 2016.

⁷¹*External Trade of the Russian Federation with Primary Countries for the Period January-December 2013*. Russian Federal Statistics Service [online]. Moscow: Russian Federal Statistics Service, 2014 [2016-04-01]. (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18871:-2013-&catid=125:2011-02-04-16-01-54&Itemid=1976)

⁷²*Foreign Trade of Russia with Norway*. Integrated Foreign Economic Information Portal.Moscow, 2016.

Export of services from Russia to Norway comprised \$0.2 billion, mainly travel (33%) and transport (20%). Import from Norway into Russia was equal to \$0.9 billion with significant share of travel of around 80%.⁷³ FDI stock from Norway in Russia amounted to \$0.3 billion, while from Russia in Norway – \$0.2 billion.⁷⁴ Though, both countries have limited number of bilateral trade and investment agreements. The bilateral investment treaty between the countries is in force since 1998. The main contact point is Russian-Norwegian Intergovernmental Commission on Economic, Industrial and Scientific-Technical Cooperation. Moreover, the Norwegian-Russian Chamber of Commerce was established in 2003, which is a non-profit, nongovernmental organization of Norwegian and Russian companies. The Chamber offers networking events, business delegations and arrangements.⁷⁵

Australia and Russia also have established economic ties. Both countries are members of Asia-Pacific Economic Cooperation (APEC), the organization that seeks to facilitate trade between each other through faster customs procedures, improvement business climates and aligning regulations and standards. However, trade volume is rather low. Trade in goods in 2013 was equal to almost \$0.9 billion, which makes 0.1% and 0.2% of Russian and Australian foreign trade in goods in 2013.⁷⁶ Export from Russia to Australia was equal to \$0.07 billion, with around 90% of export being oil products. Import of Russia from Australia amounted to \$0.8 billion, which mainly consisted of confidential materials like alumina and similar (40%) and meat products (around 25%).⁷⁷ Trade in services amounted to \$0.1 billion, with export from Russia of \$87 million and import to Russia of \$37 million. FDI stock from Australia in Russia was equal to \$62 million, while FDI stock of Russia in Australia - \$431 million.⁷⁵ Russia and Australia has several bilateral agreements: bilateral Double Taxation Agreement since 2004, Memorandum of Understanding on Agricultural Cooperation since 2010 and Agreement on Cooperation in the Use of Nuclear Energy since 2010.

⁷³*External Trade in Services of the Russian Federation 2013*. Central Bank of the Russian Federation. Moscow, Russia: The Central Bank of the Russian Federation, Statistics Department, 2014.

⁷⁴*Stocks Broken Down by Instrument and Country (directional principle)*. Moscow, Russia: The Central Bank of the Russian Federation, 2016.

⁷⁵*About*. In: NRCC [Online]. Oslo: Norwegian-Russian Chamber of Commerce [2016-03-27] (Available at: <http://www.nrcc.no/about/about-nrcc/91-about>)

⁷⁶*External Trade of the Russian Federation with Primary Countries for the Period January-December 2013*. Russian Federal Statistics Service [online]. Moscow: Russian Federal Statistics Service, 2014 [2016-04-01]. (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18871:-2013-&catid=125:2011-02-04-16-01-54&Itemid=1976)

⁷⁷*Foreign Trade of Russia with Australia. Integrated Foreign Economic Information Portal* [online]. Moscow, 2016 [2016-04-26]. (Available at: http://www.ved.gov.ru/exportcountries/au/au_ru_relations/au_ru_trade/)

Table 1: Trade in Goods and Services, FDI Inward Stock and Other Economic Cooperation of Russia with the EU, US, Canada, Norway and Australia in 2013.

Variables	European Union	United States of America	Canada	Norway	Australia
Merchandise Export from Russia ⁷⁸ (billions of US dollars; % of Russian total merchandise export; Main categories)	283(54%) Mineral fuels(78%)	11.1 (1.3%) Mineral fuels (72%)	0.5	0.8	0.07
Merchandise Import to Russia ⁷⁹ (billions of US dollars; % of Russian total merchandise import; Main categories)	134(42%) Machinery (32%), vehicles (16%), chemicals (14%)	16.5 (5%) Machinery, aircraft and vehicles (63%)	1.8	1.8	0.8
Export of Services from Russia ⁷⁹ (billions of US dollars; % of Russian total service export; Main categories)	27.9(40%) Transport (25%), professional and consulting service in management (25%)	4.3 (6%) Technical, trade-related and other business services (30%), telecommunication , computer and IT services (23%)	0.4	0.2	0.09
Import of Services to Russia ⁸⁰ (billions of US dollars; % of Russian total service import; Main categories)	56.8(44%) Travel (44%)	6.6 (5%) Travel (23%), technical, trade-related and other business services (23%), charges for the use of IP (20%)	0.4	0.9	0.04
FDI inward stock ⁸⁰	197(35%)	18.6 (3%)	0.2	0.3	0.06

⁷⁸ *External Trade of the Russian Federation with Primary Countries for the Period January-December 2013*. Russian Federal Statistics Service [online]. Moscow: Russian Federal Statistics Service, 2014 [2016-04-01]. (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18871:-2013-&catid=125:2011-02-04-16-01-54&Itemid=1976)

⁷⁹ *External Trade in Services of the Russian Federation 2013*. Central Bank of the Russian Federation. Moscow, Russia: The Central Bank of the Russian Federation, Statistics Department, 2014.

⁸⁰ *Stocks Broken Down by Instrument and Country (directional principle)*. Moscow, Russia: The Central Bank of the Russian Federation, 2016.

(billions of US dollars; % of Russian total FDI inward stock)					
Other Economic Cooperation	Partnership and Cooperation Agreement 1997 Negotiations on Common Spaces (suspended)	IPR Action Plan 2012	Canada-Russian Federation Foreign Investment Promotion and Protection Agreement 1991 Agreement on Trade and Commercial Relations 1992 Capital Goods and Services Deliveries 1992, Economic Cooperation 1993 etc.	BIT 1998 Russian-Norwegian Intergovernmental Commission on Economic, Industrial and Scientific-Technical Cooperation Norwegian-Russian Chamber of Commerce 2003	Double Taxation Agreement 2004 Memorandum of Understanding on Agricultural Cooperation 2010 Agreement on Cooperation in the Use of Nuclear Energy 2010

Source: own summarization; statistical sources indicated in Footnotes

Overall, Russian economic ties are strong in relation with the EU as both countries have been cooperating through agreements and negotiations. The EU is also the most important trade partner of Russia. Another important trade companion is the USA. However, trade between the USA and Russia equals to mere 7% of trade between Russia and the EU. Number of trade agreements is also limited. Canada and Norway have similar significance in trade and investment relations. However, Russian trade with them is also low. Australia is one of APEC partners. Although, the economic ties with Australia are weak.

3.1.4. Participation of International Organizations

As it was mentioned before, participation of international organizations that coordinate and supervise the imposition of sanctions usually increases the probability of a successful outcome for sanctions. There are no international organizations that supervise implementation of sanctions against Russia. Thus, the variable has no significance for the analysis.

3.1.5. *International Assistance*

The trade reorientation from the EU, USA and other countries which implemented sanctions will need time to occur. However, some important steps have already taken place. The direction of reorientation has been going to BRICS countries, especially China. The seventh BRICS summit took place in July. Importantly, the Agreement on the New Development Bank (NDB) has entered into force on 15th July, 2015. The Bank was created to provide resources for infrastructure and development projects in BRICS, especially which are aimed at environment. The initial subscribed and authorized capitals equal to \$50 and \$100 billion, respectively. The voting power is equally distributed between members. The bank also plans to lend to countries outside of BRICS.⁸¹ The bank has not given any loan as to date.⁸² Another important agreement is BRICS Contingent Reserves Arrangement (CRA), which came into force on 30th July, 2015. The framework aims at provision of support in case of short-term balance of payments pressures of BRICS countries, which will be provided through liquidity and precautionary instruments. The resources of CRA will amount to \$100 billion, with different contribution shares of the members.⁸³ The lending has not started as to date.⁶⁵

In December, 2015, Russia has ratified the Agreement of the Asian Infrastructure Investment Bank (AIIB). The Articles of the Agreement entered into force on 25th December, 2015. The AIIB is a multilateral development bank, similar to the IMF and the World Bank. The Bank will focus on infrastructure development in the Asia-Pacific region. The number of prospective members was 57 as of 31st December, 2015. Only 17 members ratified the Agreement. The AIIB includes such countries as BRICS countries, Australia, Austria, Finland, Germany, Italy, South Korea, the Netherlands and the UK. It excludes the USA and Canada among others. The AIIB has opened on 16th January, 2016. No funding has taken place as to date.⁶³

The cooperation between Russia and China has greatly increased since 2014. In May 2014, around 46 agreements were signed. The second and third sets of agreements were signed later, in the autumn. Economic agreements relate to four areas: energy, finance, infrastructure and technology.

⁸¹ *Agreement on the New Development Bank*. New Development Bank [online]. Brazil: New Development Bank, 2014 [2016-04-01]. (Available at: <http://ndbbrics.org/agreement.html>)

⁸² 27th March 2016

⁸³ *BRICS Contingent Reserve Arrangement Starts Operations*. Official Website of Russia's Presidency in BRICS [online]. Ufa: BRICS, 2015 [2016-03-27]. (Available at: <http://en.brics2015.ru/news/20150905/508730.html>)

In the area of *energy*, a contract on gas delivery between Gazprom and China National Petroleum Corporation (CNPC) was signed. The deal is worth \$400 billion. Natural gas will be delivered from 2018 for 30 years. The pipeline called “Sila Sibiri” (“Power of Siberia”) is being built by Russia and China jointly. Moreover, Gazprom and CNPC signed the Heads of Agreement for gas supply via the western route. The prices are still being negotiated for gas supply via the western route. However, oil and gas export from Russia are mainly going to Europe. China is believed to be unable to replace European energy market, especially in the short- or medium-term. The conditions of agreements can be also potentially changed in the future.

In the *finance*, the Central Banks of Russia and China signed a bilateral local currency swap agreement in October, 2014. The currency swap agreement is for 815 billion RUB/150 billion CNY (up to \$25 billion) swap within three years, which will decrease the dependence of both countries on foreign currency, especially dollar, in bilateral trade and investment. Such agreement is the first between Russia and China. The possibility of loans from Chinese state-owned banks for Russian companies is limited.

In the *infrastructure*, China has been cooperating with Russia for some time before. But more projects have been negotiated and designed by two countries jointly. For example, high-speed rail between Moscow and Kazan is being designed. The investment by the Chinese part is not specified. Moreover, China also participates in construction of “Power of Siberia” pipeline. The CNPC investment is said to be \$25 billion.⁸⁴ In 2014, Russia and China have proceeded with construction of a bridge across the Amur River. The project has been proposed in 2007. However, only in September, 2014, the joint company of Russia and China was founded.⁸⁵ The bridge is being built by the two countries. The investment by China is said to be around \$422 million.⁸⁶ The Sino-Russian cooperation in timber processing continued too. Moreover, China has been investing in the Russian Far East.⁸⁷

⁸⁴ *China Begins Construction of Power of Siberia Pipeline for Gas Delivered from Russia*. In: RT News Agency [online]. Moscow: RT News Agency, 2015 [2016-04-01]. (Available at: <https://www.rt.com/business/270352-russia-china-gas-pipeline/>)

⁸⁵ *Russia and China Establish Company To Build a Bridge Across Amur River*. ITAR-TASS News Agency [online]. Moscow: ITAR-TASS News Agency, 2014[2016-03-28]. (Available at: <http://tass.ru/en/economy/751373>)

⁸⁶ *Construction of 2.2 km Amur Bridge Begins*. *Railway Gazette* [online]. London: Railway Gazette, 2014 [2016-04-01]. (Available at: <http://www.railwaygazette.com/news/infrastructure/single-view/view/construction-of-22-km-amur-bridge-begins.html>)

⁸⁷ *China Invests \$2bn in Russian Far East*. RT News Agency [online]. Moscow: RT News Agency, 2016 [2016-04-01]. (Available at: <https://www.rt.com/business/335223-china-russia-investment-projects/>)

In the area of *technology*, the cooperation between Russia and China has been focused on telecommunication and military equipment. Speaking of the former, the Russian telecommunications ministry has been considering the replacement of equipment with Chinese one. Furthermore, in October, 2014, Sberbank and Huawei have signed a collaboration agreement which allows the bank to buy equipment directly from Huawei.⁸⁸ In the military trade, Russia supplied China with S-400 missile systems, the Russian newest air defence system.⁸⁹ Though, Russia was reluctant to sell China its advanced military technologies. There is possibility that China will copy the technologies and sell it to developing countries at lower prices. Another concern is that China can use these arms against Russia.

Despite increasing cooperation, challenges are predicted in the relationship between Russia and China as China is expected to negotiate hard on prices and push the conditions.

Russia has also continued cooperating with Eurasian Economic Union countries. However, as it was pointed out earlier for BRICS, the reorientation and increasing cooperation with BRICS and Eurasian Economic Union countries will probably be not sufficient to substitute trade with the EU and other countries implemented sanctions, especially in the short- and medium-term.

3.1.6. Types of Sanctions Implemented

Sanctions were implemented in the form of individual assets and travel bans, trade restriction on oil exploration and military-related goods, services and technologies as well as limitation on financing specific entities. Thus, the sanctions are a mix of “smart”, trade and financial sanction with focus on individual assets and travel bans. The effect of “smart” sanctions is difficult to analyse and relates more to the political sphere. Trade and financial restrictions are targeting the weak points of Russia. The country depends on imports of advanced technology for military and oil exploration as well as on foreign capital.

Speaking of trade sanctions against Russia, the effects might be evident later. Though, it is important to note that Russia is dependent on the export of advanced equipment for military and oil sector. It is estimated that Russia has been importing 68% of advanced equipment for oil and gas exploration from the EU and USA and 65-79% of equipment in rocket and

⁸⁸*Sberbank Becomes a Partner of Huawei*. Sberbank [online]. Moscow: Sberbank, 2015 [2016-04-01]. (Available at: http://data.sberbank.ru/en/press_center/all/index.php?id114=200008208)

⁸⁹*China to Receive Russia's S-400 Missile Defense Systems in 12-18 Months*. The Diplomat [online]. Tokyo: The Diplomat, 2015 [cit. 2016-04-01]. (Available at: <http://thediplomat.com/2015/11/china-to-receive-russias-s-400-missile-defense-systems-in-12-18-months/>)

space.⁹⁰ The cooperation with China in technology and finance can diminish the cost imposed by sanctions.

Financial sanctions target Russian dependence on foreign finance in banking sector as it is pointed out in the Oxford Handbook of the Russian Economy.⁹¹ External debt of Russian banks exceeded \$142 billion in 2010, which outreaches 25% of all bank and 50% of household deposits. Such banks as “Russian National Commercial Bank”, “Sberbank”, “VTB Bank”, “Gazprombank” and “Vnesheconombank” are included in the sanction list. Altogether these banks had more than 50% of market share in 2013.⁹² Moreover, loans for specific Russian companies are restricted as well. According to the World Bank, the financial sanctions influence the Russian economy through three channels. Firstly, they contributed to volatility of foreign exchange market and depreciation of the rouble, which in turn lead to capital outflows and worsened inflation. Secondly, internal and external credit conditions deteriorated, which lead to drop in investment and consumption. Thirdly, the confidence crisis arose, which also contributed to the worsening investment and consumption.⁹³

Furthermore, Russia has implemented counter-sanctions in the form of embargo on food products. In 2013 Russia imported 13% of food products from other countries.⁹⁴ 10% of Russian import from the EU in 2013 consisted of food products. The import substitution policy needs time to be fully implemented, especially as Russia has limited developed manufacturing capacity. Trade with Asian countries can also improve the situation, although, in the medium- and long-term. The embargo is said to have resulted in the growing food prices and overall inflation.

3.1.7. Analysis of the Variables' Effect on the Impact of Economic Sanctions on the Russian Economy

The variables presented in the Chapter IIIa either strengthen, weaken or do not have an effect on the impact of economic sanctions on the Russian economy. In the Table 1, the variables that have an effect are presented and distributed between two types: *contributing* to or

⁹⁰FALTSMAN, V. *Import Substitution in TEK and OPK*. Economic Issues. 2015, **2015**(1), 116–124.

⁹¹*The Oxford handbook of the Russian economy*. 2013. New York: Oxford University Press, 2013, pp. 562-563. ISBN 9780199759927.

⁹²*CEE Banking Sector Report 2014*. Raiffeisen. Raiffeisen Research, 2014, **2014**, 61.

⁹³*The Dawn of a New Economic Era? Russia: Economic Report 33*. Washington, D.C.: World Bank, 2015, **2015**(33), pp. 38-39.

⁹⁴Structure of Foreign Import for 2013. *Federal Customs Service of the Russian Federation* [online]. Moscow: Federal Customs Service of the Russian Federation, 2014 [2016-03-21] (Available at: http://customs.ru/index2.php?option=com_content&view=article&id=18874:-2013-&catid=52:2011-01-24-16-28-57&Itemid=1978)

weakening. Moreover, additional factors – dependence of the Russian economy on export of oil and gas and low oil price—are presented as they significantly contribute to the current economic situation of Russia. The summary is provided in the Table 2 below.

Internal factors that strengthen the impact of economic sanctions on the Russian economy are relatively high import dependence, inefficient rent management system, weak financial system, underdeveloped domestic industries, low market competition and dependence on export of oil and gas. The trade sanctions by the Western countries restrict export of advanced technology for oil exploration and military areas, in which Russia depends on foreign imports, especially from the USA and the EU. It means that Russia has to seek other suppliers with potentially higher prices and lower quality. Moreover, weak domestic financial system means dependence on foreign capital in the banking sector. Financial sanctions limit access to capital for large Russian companies. Furthermore, inefficient rent management system leads to slower recovery and adjustment to the current situation. Underdeveloped domestic industries and low market competition make it difficult for Russia to implement import substitution policy in the food production. Russian embargo on food products in the short- and medium-term results in higher prices and lower quality. In the Graph 3 in Annex the inflation change for food products can be seen. Large increase has occurred late 2013 to 2015. Fluctuations of the rouble also lead to increasing prices for goods imported from abroad. Lastly, dependence on oil and gas export worsens the effect of oil price fluctuation. Government revenues drop, while rouble further depreciates.

External factors that contribute to the cost of sanctions for the economy of Russia are trade and financial sanctions that target weak points of Russia, close economic ties with the EU, significant sizes of economies of the countries that implemented sanctions against Russia, embargo on food products and low oil price. As it was pointed out, Russia depends on import of advanced technology from abroad as well as foreign capital. Moreover, the EU, the most important trade partner and investor for Russia, has implemented trade and financial sanctions. Russia has also used food embargo against EU food products. Furthermore, oil prices dropped and stayed low leading to depreciation of rouble together with other factors. The fluctuation of rouble and oil price can be seen in the Graph 4 in Annex.

Internal factors that weaken the impact of economic sanctions on the Russian economy are large economic size, low public debt and significance in the world market of natural resources. As the economy of country is large and trade is conducted with other countries besides the EU, US and other states implemented sanctions, Russia has the ability to find

suppliers and buyers in other markets. However, the EU, Russian most important trade and investment partner, has enforced sanctions, which can put significant cost on the Russian trade and economy. Moreover, economic sizes of the senders such as the EU and US are large compared to Russia. Russia also has low government debt as a ratio to GDP, which can mean strong ability to borrow. The country is also one of the most important exporters and has large reserves of natural resources. It can increase in time its exports to prevent large deficits, which is also connected with some problems. Increasing production of oil may further decrease oil prices. Furthermore, growing supply should correlate with raising demand. It can also prevent the country from development of other industries.

External factors that weaken the impact of economic sanctions are comprised of prevalence of “smart” sanctions, no participation of any international organization as a coordinator, relatively small trade flow of Russia with US, Canada, Norway, Australia and some other senders and increasing cooperation with BRICS countries, especially China. As it was noted earlier, majority of sanctions are targeted at individuals, which are connected with the Ukrainian crisis and the Russian government. The individual measures include asset freezes and travel bans. Such sanctions do not have impact on the Russian economy overall, while financial and trade instruments do. There is also no international organization that coordinates the implementation of sanctions, but it is rather done on individual basis of countries, except for the European Union, where decision is taken at supranational level. According to theories of international sanctions, coordination of sanction implementation by international organizations increases the probability of success. The countries that implemented sanctions have relatively small trade flows and investment with Russia, except for the EU. Russian trade with the USA amounts to around 3% of the Russian total trade, while trade with Canada, Australia, Norway and other senders is even lower. FDI stocks are similarly low, which limits effect of trade and financial sanctions on the Russian economy. The impact can be also decreased by new international economic cooperation. For example, BRICS countries have established New Development Bank (NDB) and Contingent Reserves Arrangement (CRA). Both may invest in Russia or provide short-term loans in case of BOP problems. Though, no investment has been yet granted as to date. Importantly, Russia has increased cooperation with China in the area of infrastructure, finance, energy and technology. For example, both countries concluded an agreement on Power of Siberia project and gas supply for 30 years. Russia and China has also undertaken a currency swap. China is also planning to invest into some infrastructure projects. With increasing cooperation with BRICS countries, Russia can

potentially reorient its trade in the future, which will also weaken effect of economic sanctions by Western countries.

Table 2: Economic Variables Affecting the Cost of Sanctions for the Russian Economy

	Economic Variables Contributing to the Cost of Sanctions for the Russian Economy	Economic Variables Diminishing the Cost of Sanctions for the Russian Economy
Internal Economic Variables	Relatively high import dependence	Large economic size of Russia
	Weak financial system	Low government debt as % of GDP
	Inefficient rent management system	Large reserves of natural resources
	Underdeveloped domestic industries	
	Low market competition	Significance in the world export of natural resources
	Dependence on export of oil and gas*	
External Economic Variables	Trade and financial sanctions targeted at oil, gas and military sphere	Prevalence of “smart” sanctions
	Close economic ties with the EU	No international organizations as a coordinator
	Significant sizes of economies of the countries implemented sanctions against Russia	Relatively small trade flow of Russia with the USA, Canada, Norway and Australia
	Embargo on food products	Increasing cooperation with BRICS: New Development Bank (NDB) and Contingent Reserves Arrangement (CRA)
	Low oil price*	Agreement of the Asian Infrastructure Investment Bank (AIIB)
		Higher cooperation with China in the sphere of trade, finance and infrastructure

**additional factor affecting the Russian economy*

Source: own summarization; statistical sources indicated in Footnotes

3.2. Russian economy before the imposition of sanctions (2011–2013)

The economic variables analysed in this chapter are annual GDP growth rate, yearly average inflation, unemployment, annual percentage growth of real wages, government budget balance to GDP, current account, change in reserve assets and net capital flow of private sector. These variables present an overview of both internal and external balances in order to analyse health and development of the Russian economy. The period after the Soviet Union disintegration and before 2011 is not analysed, because in the early 2000s the country was

undergoing transition to the market economy, in the late 2000s the oil prices were raising, in 2008 economic crisis happened with subsequent recovery in 2009-2010.

Internal balance factors include GDP growth rate, inflation, unemployment, annual growth of real wages and government budget balance. Firstly, GDP growth rate is used to indicate economic growth or health of a country. Rising GDP means expansion of the economy together with production and, potentially, personal income. Thus, positive GDP growth rate is to be sustained. Secondly, inflation rate shows rise in the general level of prices of goods and services in the economy. Inflation rate should be under focus as too low or too high inflation rate can disrupt the economy. High inflation leads to such negative effects as decline in real money holdings, output, private consumption and investment.⁹⁵ On the other hand, a negative inflation rate or deflation can worsen economic downturn and is usually associated with economic depression. According to various analyses, optimal inflation rate is usually estimated between 1% and 3% a year.⁹⁶ Thirdly, unemployment rate indicates labour market performance. With rising unemployment, output as well as spending falls. Fourthly, annual percentage growth of real wages or disposable income shows increase in living standards. Fifthly, public budget balance displays whether a government is spending more than it collects as revenue. Increasing public deficits may potentially lead to reduction of overall government expenditures, including social policy and investment into domestic industries.

External balance factors are change in reserve assets, current account balance and net capital flow of private sector. Firstly, change in reserve assets indicates international payment gap of a country with its trading partners which is financed by official reserve transactions. It shows whether a country is a net creditor or debtor. Secondly, current account balance similarly displays whether an economy is a net creditor or debtor to the rest of the world. Balance in current account can also indicate state of an economy. If a country is a debtor, it can mean that it is not competitive in the world market. Importantly, if deficit in overall balance of payment is persistent, a country may have difficulties with meeting its obligations in the future. Lastly, net capital flow of private sector shows whether private sector is financed with foreign assets or domestic. It can indicate attractiveness of a country for foreign investment and/or lack of domestic capital. Inflow of capital into private sector contributes to its development, while outflow slows the growth.

⁹⁵BRAUMANN, B. *Real Effects of High Inflation*. IMF Working Paper. International Monetary Fund, 2000, 00(85), 22.

⁹⁶ COIBION, O., GORODNICHENKO, Y., WIELAN, J. *The Optimal Inflation Rate in New Keynesian Models: Should Central Banks Raise Their Inflation Targets in Light of the ZLB?* In: Review of Economic Studies. 2012, 2012(79), 65, pp. 1371-1406.

In 2011 there were two main external factors influencing economic development: forthcoming elections and the global economic crisis recovery.⁹⁷ Russia was already recovering from the 2008-crisis with *annual growth rate of GDP* of around 4%, which was higher than US and EU, but lower than China and India. *Inflation* in consumer prices increased slightly to 8% from 2010, but was still lower than pre-2010 levels. Speaking of *unemployment*, the situation improved from 2009. Generally, it was quite low. However, it was high in some regions, which reflected unfavourable investment climate and structural problems. Speaking of *real wages*, if compared to the previous year, they were stable. Moreover, the *government budget* as % of GDP was in small surplus. The *change in reserve assets* was positive together with *current account* surplus of 5%. However, it was pointed out that favourable short-term economic and fiscal situation was a result of high oil prices, which generated high budget revenue. Thus, economic stability and development were vulnerable.⁹⁸ For example, non-oil current account was in deficit. It could be also seen in *capital outflow* of \$81 billion. The reasons for such negative capital flow can be unfavourable investment climate, euro crisis and world economic recovery from the global crisis. Other important economic events are cancellation of the currency band and further steps in accession of Russia into the WTO.⁸²

2012 was influenced by further recovery from the global economic crisis. Russia continued to experience favourable economic performance compared to the rest of the world with the *GDP growth rate* of 3%, which was, however, lower than the year before. The growth was aided by oil prices and domestic consumption by households, which improved.⁹⁹ On the other hand, the recovery was slow, probably due to the world economic recovery and weaknesses of the Russian economy such as slowing growth of industrial production and capital outflows.¹⁰⁰ *Inflation* dropped to 5%, which is the minimum point in 20 years prior to it. *Unemployment* fell further to the pre-crisis level, while *real wages* grew by almost 5% from 2011. There was a small surplus in *government budget*, which similarly was caused by high oil prices. Rise in *reserve assets* doubled compared to 2011. *Current account* as % of GDP slightly decreased, but was still in surplus. The economy experienced growing deficits in non-oil current account. *Capital outflow* improved if compared to 2011, but still unfavourable with outflow of \$54 billion.

⁹⁷*Russian Economy in 2011: Trends and Outlooks* [online]. Moscow, Russia: Gaidar Institute for Economic Policy, 2012, 2012(33) [2016-03-05].

⁹⁸*Russian Economic Report: Growing Risk*. Washington, D.C.: World Bank, 2011, 2011(26) [2016-03-05].

⁹⁹*Russian Economy in 2012: Trends and Outlooks*. Moscow: Gaidar Institute for Economic Policy, 2013, 2013(34) [2016-03-05].

¹⁰⁰*Russian Economic Report: Moderating Risks, Bolstering Growth* [online]. Washington, D.C.: World Bank, 2012, 2012(27) [2016-03-05].

In 2013 activity of high-income countries was gradually rising. However, Russian *economic growth* started to slow down with the rate of around 1%, which was attributed to its operation at current capacity limit. Overall, domestic consumption and investment weakened, while external demand for commodities fell.¹⁰¹ Speaking of *inflation*, it gradually started to grow up to 7%. If it is combined with credit boom earlier, the combination can explain the lack of confidence among investors and households. *Unemployment* level remained almost at the same level, while *real wages* continued to increase at 4% pace. As oil prices started to decrease, it has put fiscal pressures due to falling oil revenues. Thus, the state experienced small *government budget deficit* of around 1%. There was substantial change in *reserve assets*, which decreased as *current account* surplus deteriorated and *capital outflows* slightly increased. As oil prices were changing, the exchange rate became more volatile. Overall, unfavourable economic performance was a result of both external and internal developments, including commodity prices, external demand as well as domestic structural and cyclical weaknesses.⁸⁵

Table 3: Key Macroeconomic Indicators for 2011-2013.

Variables	2011	2012	2013
Annual GDP growth ¹⁰² (% of GDP)	4.3	3.4	1.3
Inflation ¹⁰³ (Yearly average %)	8.4	5.1	6.8
Unemployment ¹⁰⁴ (% of total labour force)	6.5	5.5	5.5
Real wages growth ¹⁰⁵ (annual % change)	0.5	4.6	4
Government budget balance to GDP ¹⁰⁶ (% of GDP) + indicates increase - indicates decrease	4.2	0.5	-0.5

¹⁰¹Russian Economic Report: Structural Challenges to Growth Become Binding [online]. Washington, D.C.: World Bank, 2013, 2013(30) [2016-03-05].

¹⁰²GDP % annual change[online]. Moscow: Central Bank of the Russian Federation, 2016 [2016-03-21]. (Available at: http://www.gks.ru/free_doc/new_site/vvp/130116/tab3.htm)

¹⁰³Consumer Price Indices[online]. Moscow: Central Bank of the Russian Federation, 2016 [2016-03-21]. (Available at: http://www.cbr.ru/statistics/?PrtId=macro_sub)

¹⁰⁴Annual Mean Unemployment Rate[online]. Moscow: Federal State Statistics Service of the Russian Federation, 2015 [2016-03-21]

(Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/wages/labour_force/#)

¹⁰⁵Real income in the Russia Federation[online]. Moscow: Federal State Statistics Service of the Russian Federation, 2015 [2016-03-21]

(Available at: http://www.gks.ru/free_doc/new_site/population/urov/urov_12kv.htm)

¹⁰⁶OECD Economic Outlook № 95 [online]. Paris: OECD, 2014 [2016-03-21].

(Available at: http://stats.oecd.org/BrandedView.aspx?oecd_bv_id=eo-data-en&doi=data-00688-en)

Current account ¹⁰⁸ (billions of US dollars)	97.3	71.3	34.8
Change in reserve assets ¹⁰⁷ (billions of US dollars) + indicates increase - indicates decrease	12.6	30	-22.1
Net capital flow of private sector ¹⁰⁸ (billions of US dollars) - indicates outflow + indicates inflow	-81.4	-53.9	-61.6

Source: own summarization; statistical sources indicated in Footnotes

3.3. Russian Economy after the Imposition of Sanctions (2014–2015)

Same key macroeconomic variables are analysed for 2014 and 2015. Some predictions for further development will be presented as well. However, it is important to mention that economic sanctions have been imposed during 2014 and 2015, mainly 2014. Thus, the analysis is not full due to the time lag between the imposition of sanctions and their impact on economy. The effect of economic sanctions should be analysed over longer period of time.

In 2014 several issues were present in Russia. Firstly, the crisis of Russia's economic growth model, which was based on growing demand and large investment projects. It was already clear in 2012-2013. Sometimes the crisis of the model is attributed to late 2000s, but it was masked by high oil prices. The downturn could be caused by insufficient investment, innovation and industrial activity. Secondly, geopolitical situation and sanctions caused negative economic shock, which was further worsened with falling oil prices. Financial sanctions limited access to international capital and increased cost of borrowing for households and firms. The economic shock also resulted in foreign exchange crisis, which together with the embargo contributed to high inflation. Moreover, the factors severely affected the confidence among investors, including foreign ones, and domestic consumers.¹⁰⁹ However, Russia managed to avoid recession with *GDP growth rate* of 0.7% due to timely governmental and CB measures such as free-floating of rouble. Furthermore, the effect from oil prices can be, probably, seen later in 2015-2016. *Inflation* rose to almost 8% caused by

¹⁰⁷ *Balance of Payments of the Russian Federation (Analytical Presentation)* [online]. Moscow: Central Bank of the Russian Federation, 2015 [2016-03-21]. (Available at: <http://www.cbr.ru/eng/statistics/?PrId=svs>)

¹⁰⁸ *Net Inflows/Outflows of Capital by Private Sector (Based on the Balance of Payments, Flows Data)* [online]. Moscow: Central Bank of the Russian Federation, 2015 [2016-03-21]. (Available at: <http://www.cbr.ru/eng/statistics/?PrId=svs>)

¹⁰⁹ *Russian Economic Report: Policy Uncertainty Clouds Medium-Term Prospects* [online]. Washington, D.C.: World Bank, 2014, 2014(32) [2016-03-05].

pressure on rouble, exchange rate crisis as well as counter-sanctions on Russian imports. *Unemployment* stayed at the same level, while *real wages* started to decrease, with small drop of 0.7%. *Government budget* experienced small deficit similar to 2013. Speaking of *balance of payments*, reserve assets decreased by substantial amount of \$107.6 billion. *Capital account* slightly improved. On the other hand, private sector experienced massive *capital outflows*, which grew more than two times compared to 2013. Overall, external shocks revealed the structural issues and contributed to the crisis of Russia's economic growth model.

Throughout 2015 oil and gas prices remained low, which further revealed Russia's dependence on these sectors. The currency continued to weaken. It gave price advantage to some industries, which was, on the other hand, insufficient to overcome rapid decline in consumer demand and private investment.¹¹⁰ As for geopolitical context, only some economic measures by the Western countries were implemented, however, economic and political relations with Turkey started to deteriorate in the late 2015. Also high policy uncertainty prevailed. The Russian economy continued its adjustment to terms-of-trade shock as well as geopolitical situation. The recession deepened with *GDP growth rate* of -3.7, which negatively impacted households. Because of further rouble depreciation, *inflation* plummeted. Throughout the whole 2015 the average level of inflation was 15.6%, however, in December it dropped to 12.9%. The level of inflation was the main policy challenge for the Central Bank. The *unemployment* slightly increased to 5.6%, while there was a contraction in *real wages*. According to the preliminary data on real wages, real disposable income in the 1st quarter dropped by 2.2% compared to the same quarter last year, while in the 2nd quarter by 3.7% and 3.9% in the 3rd quarter of 2015. The drop in real wages leads to increasing poverty rates as well as vulnerability of households. Balance of *government budget* is only available for the first half of the year. According to the data, it was in deficit of 2.3% of GDP. If compared to the results of previous years, the change is dramatic as the budget for the first half of 2011-2014 was in surplus. Though, government spending was decreased.¹¹¹ Constrained budget significantly deteriorated government's ability to counter fight negative economic development. Speaking of *balance of payments*, the results are available only for the period January-September. Thus, it is hard to judge the change in 2015. Same holds for

¹¹⁰Russian Economic Report: Balancing Economic Adjustment and Transformation [online]. Washington, D.C: World Bank, 2015, 2015(34) [2016-03-08].

¹¹¹Dynamics of government spending [online]. Moscow: Ministry of Finance of the Russian Federation, 2015 [2016-03-21]. (Available at: <http://info.minfin.ru/fbrash.php>)

Current account. The change in current account may be modest as imports adjusted due to the free-floating exchange rate, which was introduced in 2014. *Capital outflow* from the preliminary data was almost three time smaller than previous year, although, still significant. It is also pointed out that policy response by the state was more or less timely. Free-floating exchange rate allowed for import correction and improved current account, while thanks to the support in the financial sector there were early signs of stabilization. On the other hand, the economy is still in the negative development and economic forecasts are not positive.¹¹²

Table 4: Key Macroeconomic Indicators for 2014-January 2016.

Variables	2014	2015
Annual GDP growth ¹¹³ (% of GDP)	0.7	-3.7
Inflation ¹¹⁴ (Yearly average %)	7.8 (December: 11.36)	15.6 (December: 12.91)
Unemployment ¹¹⁵ (% of total labour force)	5.1	5.6
Real wages growth ¹¹⁶ (annual % change)	-0.7	-3****
Government budget balance to GDP ¹¹⁷ (% of GDP) + indicates increase - indicates decrease	-0.5	-2.3*
Change in reserve assets ¹¹⁸ (billions of US dollars) + indicates increase - indicates decrease	-107.6	-2.6**
Current account ¹¹⁹ (billions of US dollars)	58	52
Net capital flow of private sector ¹¹⁹ (billions of US dollars) - indicates outflow	-153	-56.9***

¹¹²Russian Economic Report: Balancing Economic Adjustment and Transformation [online]. World Bank, 2015, **2015**(34) [2016-03-08].

¹¹³GDP % annual change [online]. Moscow: Central Bank of the Russian Federation, 2016 [2016-03-21]. (Available at: http://www.gks.ru/free_doc/new_site/vvp/130116/tab3.htm)

¹¹⁴Consumer Price Indices[online]. Moscow: Central Bank of the Russian Federation, 2016 [2016-03-21](Available at: http://www.cbr.ru/statistics/?PrId=macro_sub)

¹¹⁵Unemployment rate (indicator).OECD [Online]. Paris: OECD [2016-03-21] (Available at: <https://data.oecd.org/unemp/unemployment-rate.htm>)

¹¹⁶Real income in the Russia Federation[online]. Moscow: Federal State Statistics Service of the Russian Federation, 2015 [2016-03-21]

(Available at: http://www.gks.ru/free_doc/new_site/population/uov/uov_12kv.htm)

¹¹⁷Federal Budget Implementation of the Russia Federation for 2014 [Online]. Moscow: Ministry of Finance of the Russian Federation, 015. [2016-03-21]. (Available at:

http://www.minfin.ru/ru/performance/budget/federal_budget/budgeti/11-15/)

¹¹⁸Balance of Payments of the Russian Federation (Analytical Presentation) [Online] [2016/03/10] (Available at: <http://www.cbr.ru/eng/statistics/?PrId=svs>)

¹¹⁹Balance of Payments of the Russian Federation (Analytical Presentation) [online]. Moscow: Central Bank of the Russian Federation, 2015 [2016-03-21]. (Available at: <http://www.cbr.ru/eng/statistics/?PrId=svs>)

+ indicates inflow		
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*data available for 1st half of 2015

**data available for January-September 2015

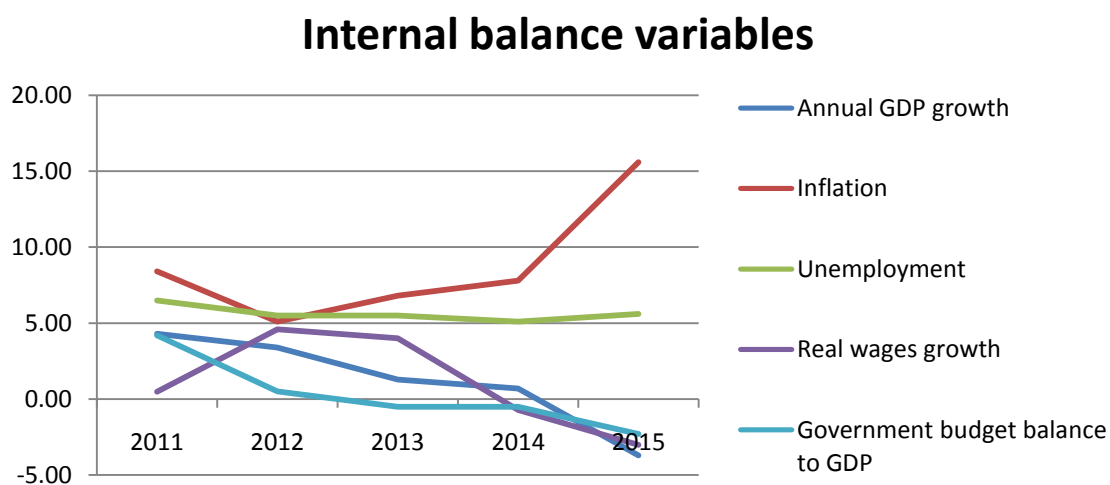
***preliminary data

****average % change for Q1, Q2, Q3 compared to Q1, Q2, Q3 previous year

Source: own summarization; statistical sources indicated in Footnotes

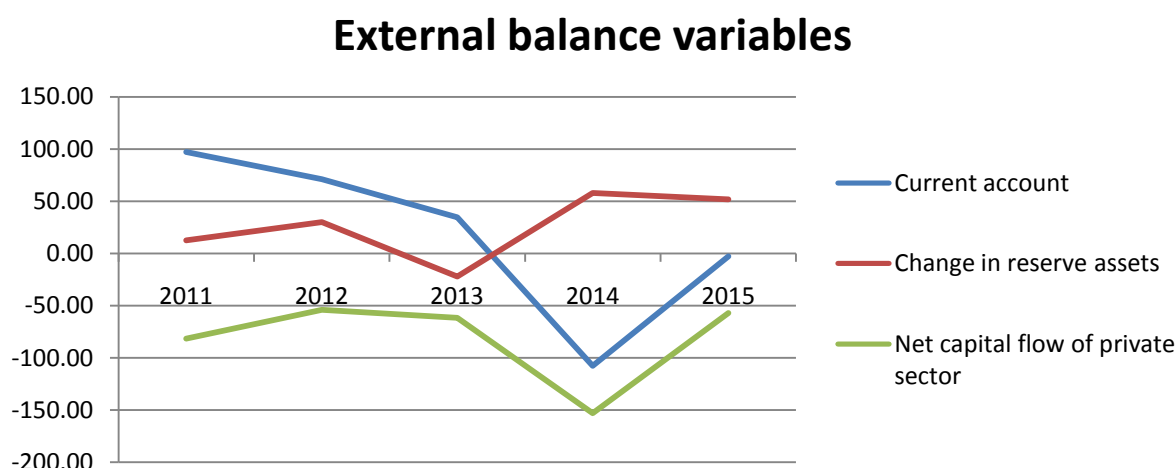
The development of main macroeconomic indicators during the period from 2011 to 2015 is shown on the Graph 1 (for internal balance) and Graph 2 (for external balance). Importantly, data for 2015 is preliminary, thus, displays numbers for a part of 2015. As can be seen from the Graph 1, annual GDP growth rate has been decreasing already from 2011. Large drop has occurred between 2014 and 2015. Inflation decreased in 2012, but has been growing since 2013. Significant increase can be seen in 2015. Unemployment has been relatively stable, even falling between 2011 and 2014. It worsened slightly in 2015. Real wages growth started to decrease in 2012, with substantial drop in 2014. Government budget balance to GDP declined from positive amount in 2011 to negative in 2014 and 2015. External balance variables can be seen in the Graph 2. Current account has been gradually falling from 2011 to 2013. It fell significantly in 2014. Information for 2015 is not full. Speaking of overall balance of payments, the change in reserve assets has been fluctuating around 0 between 2011 and 2013. In 2014 and 2015 there was decline in reserve assets, probably, due to change in current account. Capital outflows were already present between 2011 and 2013. In 2014 significant outflow can be seen.

Graph 1: Development of Internal Balance Variables during the Period 2011-2015



Source: own graphical summarization

Graph 2: Development of External Balance Variables during the Period 2011-2015



Source: own graphical summarization

There is limited data for macroeconomic development of Russia in the beginning of 2016. Thus, only major events are mentioned. Firstly, January 2016 was characterized by oil prices and exchange rate volatility as the former dropped to below \$28 per barrel as of 21st January. Later, oil prices came back above \$35 per barrel. The changes in oil prices lead to exchange rate fluctuations. Secondly, it was proposed to cut budget expenditures by 10%. Expenditure types were not specified. Furthermore, another proposal concerns privatization of certain large state-owned enterprises as Rosneft. Lastly, sanctions against Turkey came into effect from the 1st January 2016.¹²⁰ Sanctions are implemented in several areas: embargo on specific goods, including fruits, vegetables, chicken and turkey products, flowers and salt; limitations on specific economic activities of Turkish entities and employment of Turkish nationals in Russia; suspension of visa-free regime and restrictions on sales of tourist packages to Russian nationals.¹²¹ Trade embargo can potentially lead to higher inflation. Imports from Turkey comprised 2.4% of all Russian imports in 2014.¹²² Import of food products from Turkey in 2013 were the third largest category with 17%.¹²³

¹²⁰ZHAVORONKOV, S. *Main Political and Economic Events of January 2016*. In: Russian Economic Developments. Moscow, Russia: Gaidar Institute for Economic Policy, 2016, 2016(2), 4.

¹²¹*Executive Order № 583 on "Measures to ensure Russia's national security and protection of Russian citizens against criminal and other illegal acts and on the application of special economic measures against Turkey"*. Presidential Executive Office [Online]. Moscow: Presidential Executive Office, 2015 [2016-03-21] (Available at: <http://en.kremlin.ru/events/president/news/copy/50805>)

¹²²*Russia: Trade Statistics*. In: globalEDGE [Online]. East Lansing: International Business Center at Michigan State University, 2015. [2016-03-21] (Available at: <http://globalede.msu.edu/countries/russia/tradestats>)

¹²³*Economic trade cooperation between the Russian Federation and the Turkish Republic*. In: Integrated Foreign Economic Information Portal [Online]. Ministry of Economic Development of the Russian Federation [2016-03-21] (Available at: http://www.ved.gov.ru/exportcountries/tr/tr_ru_relations/tr_ru_trade/)

3.4. Economic Forecast for 2016 and 2017

Economic forecast for subsequent years predicts continuing negative trend with slow recovery in 2017. The World Bank projects 0.7% contraction of GDP in 2016, 1.3% and 1.5% recovery in 2017 and 2018.¹²⁴ The IMF predicts -1% and 1% change in GDP in 2016 and 2017, respectively.¹²⁵ According to Drobyshenvsky et al. (2016) analysis in the Gaidar institute, there are two scenarios with different assumptions: baseline and optimistic. Generally, reverse trend is not anticipated soon due to structural problems, worsening geopolitical context with Turkey, lack of foreign trade contribution into growth and slow reforms. The baseline scenario is based on \$35 and \$40 yearly average per barrel in 2016 and 2017 respectively, while optimistic one assumes \$50 and \$55. Both scenarios predict economic sanctions to remain at least until late 2016.

The baseline scenario predicts further shrinkage of GDP by 1.4% in 2016 and 0.3% in 2017. The recovery is not foreseen. The rest of economic variables should follow this development with falling export and import volumes by 25.8% and 16.5%, respectively, while exports can rise slightly and imports fall in 2017. The rouble will depreciate further in 2016 and start to gain strength only in 2017. Furthermore, fixed investment is predicted to decrease by 4.9% and 3%, while real disposable income will fall by 3.6% in 2016 and start to improve by 0.4% in 2017. The inflation as CPI will stay at 9.5% and 7%, respectively.

The optimistic scenario also assumes negative GDP change in 0.4% in 2016, but with recovery of 0.9% in 2017. Same holds for export and import volumes, which will shrink in 2016 by 13.2% and 4.4%, respectively, but improve in 2017. The rouble is foreseen to stay at 64.6 and 60.5 roubles per dollar in 2016 and 2017. As for fixed investment and real disposable income, they will experience small decline in 2016, but growth of 1.2% and 1.7% in 2017. The inflation levels are predicted to be 6.2% and 5.5%, respectively.

Table 5: Economic Forecast by Drobyshenvsky et al. (2016): Baseline Scenario

Variables	2016	2017
Annual GDP growth (% of GDP)	-1.4	-0.3
Exports (billion USD dollars; annual % change)	288.9; -25.8*	314.6; 8.9

¹²⁴*Global Economic Prospects: Spillovers amid Weak Growth*. World Bank. Washington DC: World Bank Group, 2016. p. 4. ISBN 978-1-4648-0676-6

¹²⁵*World Economic Outlook Update: Subdued Demand, Diminished Prospects*. IMF [Online]. Washington, D.C.: IMF, 2016 [2016-03-22] (Available at: <https://www.imf.org/external/pubs/ft/weo/2016/update/01/>)

Imports (billion USD dollars; annual % change)	234.4; -16.5*	231.9; -1.1
Yearly average nominal exchange rate of rouble (rouble per 1 USD dollar; annual % change)	69.4 14**	65.7 -5.3
Fixed investment (annual % change)	-4.9	-3
Real disposable income (annual % change)	-3.6	0.4
Inflation (CPI) (Yearly average %)	9.5	7

*export/import for 2015 is based on actual data for Q1, Q2, Q3 and projection for Q4

**yearly average nominal exchange rate of rouble to USD dollar for 2015 is based on actual data for Q1, Q2, Q3 and projection for Q4 (similar to OECD annual average currency exchange rates)

Source: own summarization; statistical sources indicated in Footnotes

Table 6: Economic Forecast by Drobyshenvsky et al. (2016): Optimistic Scenario

Variables	2016	2017
Annual GDP growth (% of GDP)	-0.4	0.9
Exports (billion USD dollars; annual % change)	337.8 -13.2*	368.8 9.2
Imports (billion USD dollars; annual % change)	268.4 -4.4*	305.9 13.9
Yearly average nominal exchange rate of rouble (rouble per 1 USD dollar; annual % change)	64.6 5.8**	60.5 -6.4
Fixed investment (annual % change)	-1.2	1.2
Real disposable income (annual % change)	-2.2	1.7
Inflation (CPI) (Yearly average %)	6.2	5.5

*export/import for 2015 is based on actual data for Q1, Q2, Q3 and projection for Q4

**yearly average nominal exchange rate of rouble to USD dollar for 2015 is based on actual data for Q1, Q2, Q3 and projection for Q4 (similar to OECD annual average currency exchange rates)

Source: own summarization; statistical sources indicated in Footnotes

3.5. Analysis of Change in Trade with the Countries that Imposed Economic Sanctions

Values of trade flow in goods between Russia and the countries that imposed economic sanctions are analysed in the section. Importantly, change in trade flow is not necessarily

caused by economic sanctions. As oil price has been falling, the value of Russian export has been following the trend as it is the main export category of Russia. Exchange rate fluctuation can have significant impact as well. Trade flow is presented for main trade partners that implemented sanctions and which were targeted by Russia through food embargo: the European Union and the United States of America. The Tables 1 to 6 are presented in the Annex.

Total world trade in goods of Russia grew in 2012 and has been stable during the period 2012-2014. However, it dropped by 7% in 2015 if compared to 2014. The similar pattern can be seen for trade with the EU. Total trade in goods with the EU declined by 10% in 2015. Interestingly, trade with US has been gradually falling from 2012 to 2014, but increased in 2015 by 5%. Export of goods from Russia to the world and the EU as well as import to Russia changed similarly to total trade development. However, export values to the USA from Russia have been falling since 2012, while import from the USA has been growing.

3.6. Gravity Model of Trade

Hypothesis 0: Economic sanctions against and by Russia connected with the Ukrainian crisis have had no impact on the Russian economy.

Hypothesis 1: Economic sanctions against and by Russia connected with the Ukrainian crisis have had an impact on the Russian economy.

In order to answer the research question whether economic sanctions have had an effect on the Russian economy, gravity model of trade is used. The gravity model of trade is a tool for assessment of trade impact of different policies and estimation of bilateral trade flows. It is based on Newton's universal law of gravitation in physics. The gravity model of trade was first used by Tinbergen in 1962, since then it underwent modifications as well as has been used for variety of analyses. It was first criticized for lack of theoretical basis. However, several scholars including Linneman in 1996, Eaton and Kortum in 1997 and Deardorff in 1998 provided theoretical foundation for the model. The gravity model of trade used in the thesis has the following form:

$$\ln T_{ijt} = a_0 + a_1 \ln Y_{it} + a_2 \ln D_{ij} + a_3 ER_{ijt} + a_4 TFREE_{it} + a_5 SANCT_t + a_6 BORDE_t + e_{ijt}$$

Where:

i=1,2,...,36 (trading partner)

$j=1$ (Russia)

$t=2013, 2014, 2015$

T_{ijt} : trade flow between Russia and its trading partner i in time t

Y_{it} : GDP of country i in time t

D_{ij} : distance between Russia and country i

ER_{ijt} : average annual exchange rate of rouble and currency of country i in time t

$TFREE_{ijt}$: trade freedom index of country i in time t (Heritage Foundation)

$SANCT_t=0, 1$ (dummy variable for economic sanctions)

$BORDE_t=0, 1$ (dummy variable for common border)

e_{ijt} : error term

Trade flows are analysed for Russia and its 36 trading partners. The countries are: EU-28, US, China, Japan, South Korea, Turkey, Belarus, Kazakhstan and Ukraine. These countries are main trading partners for the Russian Federation, each with share of more than 2.8% in Russian trade in 2015. Altogether their trade share was equal to 83% in 2015. The years analysed are 2013, 2014 and 2015. Number of observations is equal to 35.

Results are following:

Table 7: Adjusted R Squared and F-significance for Separate Tests

Variables	2013 (with TFREE)	2013 (without TFREE)	2014 (with TFREE)	2014 (without TFREE)	2015 (with TFREE)	2015 (without TFREE)
Adjusted R²	0,5183	0,5422	0,5658	0,5616	0,5483	0,5608
F significance	0,000114	0,000028	0,00003	0,000016	0,00005	0,000016

Source: own summarization; Regression Analysis of variables (Excel)

The adjusted R² in 2013 and 2015 for regression without TFREE (Trade Freedom) dummy variable is higher, which means that variation in values of trade flows between countries is explained better with the regression model without this dummy variable. Based on these results dummy variable TFREE is excluded in the regression model.

Table 8: Estimated Results for Gravity Model of Trade

	2013		2014		2015	
Variables	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Ln(Y_{it})	0,4921	0,000005	0,5519	0,000009	0,5273	0,000013
Ln(D_{ij})	-1,0805	0,1622	-1,8251	0,0943	-1,4954	0,1662
ER_{ijt}	0,0049	0,1705	0,0069	0,1238	0,0071	0,1270
BORDE_t	0,5915	-	0,5740	0,1741	0,5309	0,2063
SANCT_t	-	-	0,5116	0,4820	0,2396	0,7400

Source: own summarization; Regression Analysis of variables (Excel) The gravity model of trade presented (without TFREE dummy variable) is able to predict between 54% and 56% variation in value of trade flows between Russia and its main trade partners. The results are consistent with theories of gravity model of trade. With larger economic size of a partner, the trade flow is higher, while increasing geographical distance between trade partners decreases their trade flow with each other. Moreover, countries with common economic borders tend to have tighter trade cooperation. In terms of exchange rate impact on trade volume, the correlation is rather small, but is present. With higher value of Russian rouble to a foreign currency, the trade volume increases.

Speaking of dummy variable of economic sanctions, its significance in 2013 is zero as there were no sanctions in force. In 2014 the dummy variable coefficient equals to 0.5116, while in 2015 – positive 0.2396. It means that trade flow between Russia and trade partners that implemented sanctions is higher, while it is lower for countries that have not introduced economic measures. The result can be interpreted in the following way. Main trading partners of Russia such as EU countries and USA have imposed economic sanctions against it, while Russia implemented counter-measures against some of them. Importantly, the coefficient for dummy variables in 2015 has decreased by more than 50%, which may indicate that trade flow with these countries decreased due to sanctions. The time lag between imposition of measures and their effect can be in place. The data for 2016 can possibly provide better results.

3.7. Panel Data Analysis

The method allows to include time variations as well as individual heterogeneity in the analysis. As gravity model does not control for heterogeneity, it can be potentially biased. Panel data estimation is used in the thesis to answer the hypothesis together with gravity model of trade. The analysis focuses at trade flows between Russia and same 36 trading partners as in gravity model during 2012–2015. TFREE dummy variable is included. Panel data estimation is conducted with pooled-OLS, fixed effects and random effects regression methods. Further, statistical tests are used to choose the suitable method. Lastly, results for the chosen form of panel data estimation are presented.

Pool method assumes that there is single explanatory variable and one overall intercept. It does not focus at time dimension of panel data and individual effects. The pooled OLS estimation has the following function:

$$\ln T_{ijt} = b_0 + b_1 \ln Y_{it} + b_2 \ln D_{ij} + b_3 ER_{ijt} + b_4 TFREE_{it} + b_5 SANCT_t + b_6 BORDE_t + e_{ijt}$$

Where:

$i=1,2,\dots,36$ (trading partner)

$j=1$ (Russia)

$t=2012, 2013, 2014, 2015$

T_{ijt} : trade flow between Russia and its trading partner i in time t

Y_{it} : GDP of country i in time t

D_{ij} : distance between Russia and country i

ER_{ijt} : average annual exchange rate of rouble and currency of country i in time t

$TFREE_{jt}$: trade freedom index of country i in time t (Heritage Foundation)

$SANCT_t=0, 1$ (dummy variable for economic sanctions)

$BORDE_t=0, 1$ (dummy variable for common border)

e_{ijt} : error term

Fixed-effects method includes individual and time effects through non-random quantities heterogeneity analysis. The coefficients of explanatory variables are non-random. However, it does not focus at time-invariant variables such as distance. In general the fixed-effects estimation has the following function:

$$\ln T_{ijt} = b_0 + b_1 \ln Y_{it} + b_2 ER_{ijt} + b_3 TFREE_{it} + b_4 SANCT_t + v_i + e_{ijt}$$

Where:

$i=1,2,\dots,36$ (trading partner)

$j=1$ (Russia)

$t=2012, 2013, 2014, 2015$

T_{ijt} : trade flow between Russia and its trading partner i in time t

Y_{it} : GDP of country i in time t

ER_{ijt} : average annual exchange rate of rouble and currency of country i in time t

$TFREE_{jt}$: trade freedom index of country i in time t (Heritage Foundation)

$SANCT_t=0, 1$ (dummy variable for economic sanctions)

v_i : fixed effects constant

e_{ijt} : error term

Random-effects method also considers individual and time effects, though, individual specific effects are assumed not to be correlated with independent variables. In general random-effects method looks the following way:

$$\ln T_{ijt} = b_0 + b_1 \ln Y_{it} + b_2 \ln D_{ij} + b_3 ER_{ijt} + b_4 TFREE_{it} + b_5 SANCT_t + b_6 BORDE_t + u_i + e_{ijt}$$

Where:

$i=1,2,\dots,36$ (trading partner)

$j=1$ (Russia)

$t=2012, 2013, 2014, 2015$

T_{ijt} : trade flow between Russia and its trading partner i in time t

Y_{it} : GDP of country i in time t

D_{ij} : distance between Russia and country i

ER_{ijt} : average annual exchange rate of rouble and currency of country i in time t

$TFREE_{jt}$: trade freedom index of country i in time t (Heritage Foundation)

$SANCT_t=0, 1$ (dummy variable for economic sanctions)

$BORDE_t=0, 1$ (dummy variable for common border)

u_i : random effects

e_{ijt} : error term

There is no clear guideline in empirical analyses on which method should be used in the case. The choice depends on statistical tests results. Pooled OLS method is rejected based on Breusch-Pagan and joint significance of differing group tests in favour of other two models due to low p-values. Based on Hausman test, the random-effects method is denied in consistency due to low p-value. Thus, fixed-effects method is chosen for the analysis. There were 144 observations. Distance and common border variables were omitted due to exact collinearity. The coefficients are following:

Table 9: Estimated Results for Fixed-Effects Method

Variables	Coefficient	P-Value
Ln(Y_{it})	1,3849	2,62e-09
ER_{ijt}	0,0178	0,0788
TFREE_{jt}	-11,6356	0,0005
SANCT_t	-0,1874	7,80e-05

Source: own summarization; Statistical analysis

The results for trade size and exchange rate variables are similar to the gravity model of trade analysis. Another variable analysed is trade freedom indices of Russian trade partners. Interestingly, higher trade freedom is correlated with lower trade flow value. Speaking of dummy variable for economic sanctions, they are estimated to have negative impact on trade between Russia and its trading partners.

Based on both gravity model and panel data analysis, the null hypothesis (H_0) is rejected. Hence, economic sanctions do have impact on Russian foreign trade. The impact is negative.

Conclusion

Whether or not economic sanctions in connection with the Ukrainian crisis have been successful or not, has been speculated in the media and academic works. Theories of sanctions say that the effectiveness of such measures should be viewed based on the change in behaviour of a target. However, the measurement and analysis of it is rather difficult. Empirical studies as by Hufbauer et al. (2007), though, outline determinants that can predict the success of sanctions. These determinants can be both political and economic. The economic channel of such measures is said to function in the following way. Economic sanctions either directly hurt the ruling political elite or deteriorate whole economic situation of a country. As the result, the behaviour of a target state should change in order to avoid further damage or decrease already imposed one. Thus, major economic determinant of effectiveness is economic cost inflicted by sanctions. Based on this point of view, the thesis analysed the impact of economic sanctions on the Russian economy.

Russia has been experiencing economic recession from the end of 2014, which is characterised by economic growth drop, decreasing government revenues and trade values, capital outflow, depreciation of the Russian rouble and high inflation. One possible reason for such economic performance is economic sanctions in connection with the Ukrainian crisis, which have been implemented by the EU, USA, Canada, Australia and some other countries. The sanctions were imposed in the form of trade limitations in energy and military industries, “smart” sanctions against individuals and financial restrictions for specific Russian companies. Russia has answered with food embargo and individual travel bans as well.

There are variables of international sanctions and country situation that either contribute or diminish costs of economic sanctions for Russia. Among former are inefficient financial system, import dependence, underdeveloped industry and dependence on export of oil and gas as internal specifics for Russia and close ties with the EU, significant sizes of economies of senders, sanctions design that targets weak spots and low oil price as external ones. The latter group of determinants include large economic size of Russia, significance in the world market for natural resources, prevalence of “smart” measures, absence of international organization as a coordinator, small trade flows with several sending countries and increasing cooperation with BRICS countries. These variables altogether affect the Russian economy and have resulted in the current economic downturn. The role of economic sanctions in it is the aim of the thesis research.

The research question of the thesis is whether economic sanctions in connection with the Ukrainian crisis have had impact on the Russian economy. Based on gravity model of trade analysis in form of individual year and panel data methods, the economic sanctions are concluded to have had an effect. In analysis of gravity model function for individual years (2013, 2014, 2015), dummy variable for economic sanctions has a positive coefficient. However, in 2015 the coefficient value declined. It can be explained that the EU, main trading partner of Russia, has imposed sanctions against Russia and is a target of counter-measures by Russia as well. The decrease in coefficient value shows that trade flow for senders of sanctions may have declined relatively to countries which did not implement measures. Furthermore, panel data analysis in form of fixed-effects concluded that economic sanctions have had effect on trade flow of Russia with its trade partners. The coefficient for the dummy variable was negative 0.1874. It means that if other independent variables are constant, the trade flow declines by $e^{-0,1874}$ units on average when sanctions are in force. Thus, the null hypothesis is rejected. The trade flow is confirmed to be affected by economic sanctions. Trade flow is also connected with the overall performance of the economy as it contributes to economic growth, standards of living, employment and other macroeconomic indicators. Net exports are also part of national GDP. Thus, when international trade is affected, a country's economic development is influenced as well.

Economic sanctions in connection with the Ukrainian crisis are confirmed to have impact on the Russian economy. The main limitations of the thesis are following: short time period and absence of calculated impact of economic sanctions. Firstly, the period considered in the thesis is 2014 and 2015. International economic sanctions require longer time period for analysis, especially in relation to trade sanctions in oil, gas and military industry. Secondly, economic cost for the Russian economy imposed by economic sanctions is not calculated. The calculation can be possible research topic. Moreover, there is number of factors that together with economic sanctions resulted in the current economic situation, including oil prices. The effect of economic sanctions may be strengthened or weakened by these factors, which is difficult to separate. What is more, it does not consider the overall success of sanctions in terms of change in behavior, which is a political variable.

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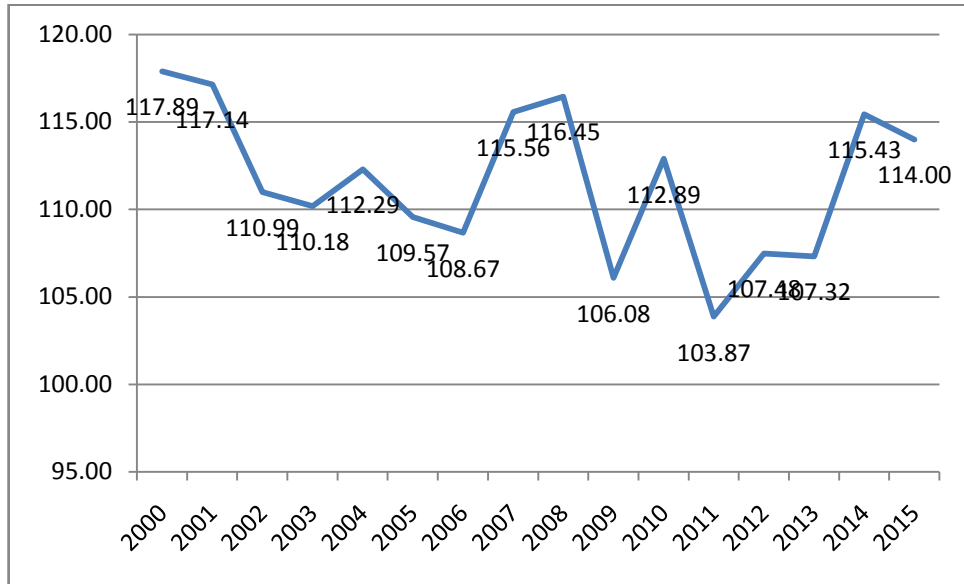
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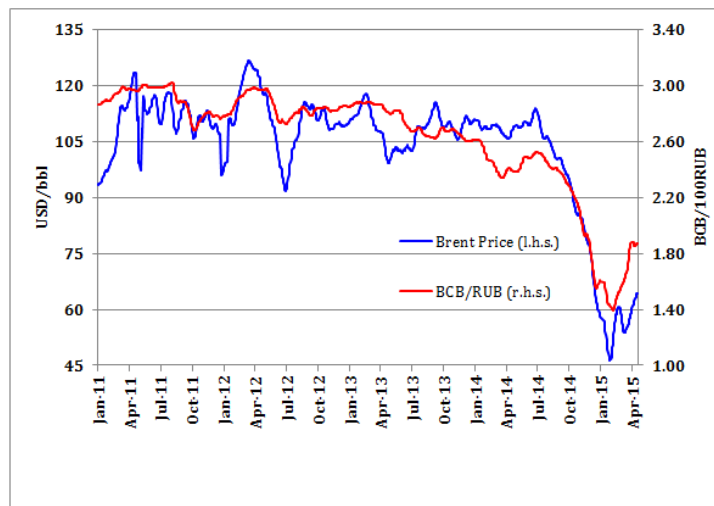
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Annex

Graph3: Inflation for Food Products (to December of previous year)



Graph 4: Oil Price and Rouble Exchange Rate 10-day Moving Average Trend



Source: Aleksashenko, S. (2015). *The rouble currency storm is over, but is the Russian economy ready for the next one?* Brookings Institution