

THE IMPACT OF ECONOMIC SANCTIONS AS A FOREIGN POLICY
INSTRUMENT:
THE EXAMPLE OF U.S. SANCTIONS ON RUSSIAN ENERGY INDUSTRY



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YEDİTEPE UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
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PLAGIARISM

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

06.07.2023

Ali Murat GÜRTUNA

ABSTRACT

Economic sanctions, especially during the twentieth century, emerged as a foreign policy tool. Economic sanctions were a perfect tool of the Cold War as a deterrent for employing military power. The main objective of employing economic sanctions is to make the other party to reexamine and potentially revise its policies causing the unrest, and ultimately comply with the requirements of the coercer.

However today the level of effectiveness of employing economic sanctions as foreign policy instrument is subject to wide debate. This thesis is prepared with the objective of contributing to the debate using a case study to answer the question of whether economic sanctions are a viable deterrent to achieve the desired outcome. In the study we examined whether the US sanctions placed on the Russian energy sector was an effective deterrent after Russia's annexation of Crimea. The thesis examined the background and the purpose of these sanctions and evaluate their effectiveness by discussing their impact on the Russian energy sector. This case study helps to answer the broader question of the efficacy of economic sanctions. Based on this case study, we argue that a better way to assess whether the sanctions reach their desired outcome is to consider the overall profile of the country that is the subject of sanctions.

In this study we used several different sources to advance our analysis. We used official communiqués and directives of the United States authorities, bilateral/multilateral agreements, import, export, production, reserve data related to the Russian energy sector (oil and natural gas), and export and import data of Russia and other countries trading in these fields. Based on our study we argued that how sanctions are designed is an important component in evaluating the outcome of the sanctions. More importantly, we argued that the sanctions which are not appropriate to create immediate impact, are an ineffective deterrent strategy. More specifically, the study showed that the Russian energy sector was not adversely affected by the imposed economic sanctions, leaving its position in the global oil and natural gas market unchanged. This thesis contributes to the literature on economic sanctions, especially for researchers who want to focus on sectoral sanctions, by emphasizing the need to focus on the unique position and power of the sanctioned party in the global market in assessing the overall effectiveness of sanctions.

Keywords: *Economic sanctions, Energy, Foreign Policy, Russia, Sectoral Sanctions*



ÖZET

Ekonomik yaptırımlar özellikle 20. yüzyılda bir dış politika enstrümanı olarak ortaya çıkmaktadır. Soğuk savaş döneminin getirdiği şartlar itibariyle, ekonomik yaptırımlar bu şartların gerektirdiği özelliklere haiz bir seçenek olarak ülkelerin dış politika karar verme mekanizmalarında kendine yer bulmuştur. Ekonomik yaptırımlar bir dış politika enstrümanı olarak, çoğunlukla askeri gücün kullanılmasının birinci tercih olmadığı durumlarda uygulanmaktadır. Ekonomik yaptırımların en temel amacı, yaptırım uygulanan karşı tarafın tartışmaya konu olan politikalarını ve/veya davranışlarını revize etmesi ve hatta yaptırım uygulayanın talepleriyle uyumlu olmasını beklemektir. Ancak günümüzde bir dış politika enstrümanı olarak ekonomik yaptırımların hangi ölçüde etkinlik sağladığı bir tartışma konusudur. Bu tez ise, bu tartışmaya katkı sağlamak için güncel bir örneği çalışmanın merkezine almıştır. İncelenen örneğin aktörleri sahip oldukları özellikler itibariyle yaptırımların etkinliği literatürüne yeni bir bakış açısı ile katkı sağlamaya uygun aktörlerdir. Zira, ekonomik yaptırımların etkinliğine ilişkin literatür ekseriyetle 20.yüzyıl vakalarını (ki bu vakalarda aktörler, ekonomik ve askeri güç açısından birbirine denk olmayan aktörler olmanın yanı sıra, söz konusu yaptırımlar sektörel yaptırımlardan ziyade tam kapsamlı yaptırımlardır.) ele alırken bu tez ise güncel bir konu üzerinden belli bir sektöre yönelik yaptırımların hangi ölçüde etki yarattığını irdelenmiştir. Bu çalışma, ekonomik yaptırımların karşı ülkeyi caydırmak konusunda yeterince etkin olup olmadığı sorusunun cevabının tespiti için çalışmıştır. Bununla birlikte vaka üzerinden ilerleyerek Rusya'nın Kırım'ı ilhak etmesinden sonra Amerika Birleşik Devletleri'nin Rus enerji sektörüne yönelik yaptırımlarının etkin olup olmadığı irdelenmiştir. Böylelikle tez, uygulanan bu yaptırımların arka planını, amacını ve nihayetinde Rus enerji sektörünün bu yaptırımlardan hangi ölçüde etkilendiğini tartışmıştır. Bu konu içerdiği taraflar itibariyle ekonomik yaptırımların etkinliğinin tespiti açısından önemlidir. Buradan hareketle, tez bu yönüyle salt olarak ekonomik yaptırımların kapsamıyla doğru orantılı olarak yaptırımların etkinliğini tespit etmekten daha ziyade, yaptırım uygulanan ülkenin profilinin dikkate alınarak bir etkinlik tespitinin daha doğru olacağını belirtmektedir. Bu çalışmada Amerika Birleşik Devletleri otoritelerine ait resmi tebliğ ve direktifler, iki taraflı/çok taraflı anlaşmalar, Rus enerji sektörüne (petrol ve doğalgaz) ilişkin ithalat, ihracat, üretim, rezerv dataları ve Rusya

ile bu alanlarda ticaret yapan diğer ülkelere ait ihracat ve ithalat dataları kullanılmıştır. Bu çalışmanın bir sonucu olarak, yaptırımların nasıl dizayn edildiğinin önemli olduğu ve buna bağlı olarak kısa vadede etki yaratması mümkün olmayan yaptırımların karşı tarafı caydırmaya yönelik etki yaratmakta zorlandığı sonucuna varılmıştır. Bu duruma paralel olarak, Rus enerji sektörünün söz konusu yaptırımlar sebebiyle küresel petrol ve doğalgaz piyasasında konumunu değiştirecek bir hasar almadığı anlaşılmıştır. Bu tez, özellikle sektörel yaptırımlar konusuna yoğunlaşmak isteyen araştırmacılar için, yaptırıma tabi tarafın küresel piyasadaki kimliğine ve ilgili sektördeki gücünün yaptırımların etkinliği noktasında belirleyici özelliğine vurgu yapmaktadır.

Anahtar kelimeler: *Dış Politika, Ekonomik Yaptırımlar, Enerji, Rusya, Sektörel Yaptırımlar*

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ABBREVIATIONS

BC: Before Christ

BCM: Billion Cubic Meter

BOTAŞ: Boru Hatları ile Petrol Taşıma Anonim Şirketi

CAATSA: The Countering America's Adversaries Through Sanctions Act

CBW Act: Chemical and Biological Weapons Act

CIS: Commonwealth of Independent States

COMECON: Council for Mutual Economic Assistance

EC: European Commission

EIA: Energy Information Administration

EO: Executive Order

EU: European Union

GL: General License

IEA: International Energy Agency

IR: International Relations

JCPOA: The Joint Comprehensive Plan of Action

LNG: Liquefied Natural Gas

NATO: North Atlantic Treaty Organization

NGL: Natural Gas Liquid

NSPM: National Security Presidential Memorandum

OEC: Observatory of Economic Complexity

OFAC: Office Foreign Asset Control

OPEC: The Organization of the Petroleum Exporting Countries

PdVSA: Petróleos de Venezuela, S.A

PEESCA Act: Protecting Europe's Energy Security Clarification Act

SCP: South Caucasus Pipeline

SDN: Specially Designated Nationals

SGC: Southern Gas Corridor

SSI: Sectoral Sanctions Identification

TANAP: Trans-Anatolian Natural Gas Pipeline

TAP: Trans Adriatic Pipeline

TCM: Trillion Cubic Meter

UK: United Kingdom

UN: United Nations

UNSC: United Nations Security Council

US: United States

USD: US Dollars

USSR: Union of Soviet Socialist Republics

1. INTRODUCTION

This thesis aims to analyze the efficiency of economic sanctions as a foreign policy instrument specific to U.S. sanctions on Russian Energy Industry after annexation of Crimea by the Russian Federation in 2014. Therefore, this thesis focuses on explaining the impact of economic sanctions which are imposed by a “super power” on a country that heavily depends on the revenues generated from the energy sector. Russia and its energy sector are not selected randomly for the subject of this thesis. Russia is one of the key players in international energy industry and the country generates significant revenue from this industry. Russian Energy sources are not only important for Russia, but also for other third parties in the energy market which are dependent to Russian energy sources. On the other hand, as a coercer country, U.S can be also considered as an important player in terms of capabilities of the sanctioning country. This thesis evaluates economic sanctions as a tool in order to achieve political ends. In this regard, this instrument can be considered as a tool in foreign policy decision making alongside other components of foreign policy: military and diplomacy.

Since the end of Cold War, Economic Sanctions have been significant foreign policy instruments for the states to create oppression on target states. No doubt, ultimate aim of this policy is to convince and force target states to re-shape their policies which are the reason for the sanctions. Sanctions can be defined as an instrument which targets various industries, firms and/or individuals of the aggressor states to coerce for a change in their behaviors. Therefore, sanctioning countries would be able to change the sanctioning state’s policies which threaten the interest of sanctioning country.

The tangible example for imposing sanctions belongs to the 1990s when humanitarian crises occurred in different regions of the world, particularly in Yugoslavia. These sanctions were being imposed by intergovernmental organization – The United Nations. In this context, visible consequences of the sanctions are not always targeting states, but also people of those countries. Sanctions may be different in terms of their types: economic, military and political. By starting from 1990s, Economic Sanctions were mostly known as an

instrument used by intergovernmental or supranational organizations. However, economic sanctions are also important tool for the states themselves to impose their policies on target states. Therefore, public opinion has witnessed to what extent economic sanctions are used as an efficient foreign policy instrument when two states disagree on various issues.

This thesis is organized as follows: the next chapter (Chapter 2) to proceed by presenting the research question and literature review as well as the methodology used in this thesis. In Chapter 2, two main research questions are explained in detail that the thesis will be answering. Thesis will be case study base research. The material will be collected from published secondary sources and the literature relating to effectiveness of sanctions will be reviewed. There exists a vast amount of literature addressing various forms of economic sanctions effectiveness. In this research, we have selected some comparative literature as well as literature on sanctions against Russia.

In chapter three, thesis proceeds by explaining foreign policy instruments by referring to historical incidents. This chapter also refers to important international relations scholars such as Robert Keohane and Joseph Nye. Therefore, Chapter 3 could find an opportunity to explain how economic sanctions revealed as an option in foreign policy decision making. Chapter three also explains sanctions imposing bodies and prominent countries (from both multilateral and unilateral perspective). Moreover, this chapter explains different U.S sanctions programs which are comprehensive.

And following chapter four presents cross country analysis of U.S sanctions imposed on two different countries apart from Russia. Therefore, the thesis would be able to explain the meaning of sanctions literature by taking two different countries as example which are Iran and Venezuela. This chapter explains to what extent Iran and Venezuela were impacted from U.S sanctions and how they coped with the challenges due to these measures. Before making analysis for the sanctions imposed on Iran and Venezuela, determinants of the effectiveness of sanctions were also explained in order to give the meaning of cross-country analysis.

Following chapter five, it explains the role of energy in Russia. Therefore, this chapter aims to provide an understanding how the energy industry plays an important role in Russian economy and its importance in global energy market. Further, this chapter aims to explain the role of Russia as an oil and gas exporter.

Chapter 6 is about the discourse of energy interdependence through Russian case. This part illustrates how European Union countries are dependent on Russian natural gas and also how much Russia is dependent on the revenue that is derived from gas sales to European Union countries.

Chapter 7 is regarding the impacts of U.S sanctions on Russian Energy industry after the annexation of Crimea. This chapter explains how Russian energy industry was impacted from U.S sanctions which enforce the sanctions via OFAC directives. Hence, the chapter illustrates that how OFAC Directive 2 and 4 restricted Russia's energy sector and how Russia was impacted concretely. Further, this chapter illustrates what kind of actions Russia took in terms of oil and gas production and export in sanction period. Moreover, it was explained the impacts of the sanctions on Russia regarding technology and equipment restrictions in oil and gas projects which is targeted in Directive 4. This chapter gives us an opportunity to understand the framework of the sectoral sanctions and how Russia coped with these measures.

In conclusion, findings of this study are revealed. Therefore, this study asserts that U.S sanctions on Russian energy industry have been ineffective. These restrictions did not deliver results as it was expected. Even though these sanctions failed to accomplish tangible results, we understand that they are promising if supported with additional measures. The conclusion part contains the limitations of the study which explains the coverage of the thesis. Lastly, this part makes some suggestions for other researchers who would like to study on this topic. These suggestions were made for "future studies".

The next section will proceed by presenting down the research questions.

2. SCOPE OF THE THESIS

2.1 Research Question and Purpose of the Study

The aim of this thesis is to analyze the efficiency of economic sanctions. There are several research questions this thesis aims to answer. However, the thesis would dwell upon on two specific research questions by selecting valid example with respect to general framework:

Firstly;

“Are economic sanctions effective foreign policy instrument to deter target state from pursuing policies that may disturb foreign policy of coercer states?”

Secondly,

“Have U.S sanctions imposed on Russian energy industry after the annexation of Crimea been efficient?”

The present research will analyze efficiency of economic sanctions as an instrument in foreign policy. Main objective of the research questions is to find answer to what extent economic sanctions are effective and appropriate tool for foreign policy of the states in terms of deterring target states. These questions will be answered in this thesis by carrying out a case study-based research, that covers the U.S Sanctions in Russian Energy Industry in 2014. Economic sanctions have always been on the agenda of the states to enforce other states for changing their policies which sanctioning countries do not readily accept. Efficiency of economic sanctions has been always a matter of debate.

Although efficiency of the sanctions depend on the parties (sanctioning/coercer and sanctioned/target), requirements of effective sanctions are counted as follows according to Hufbauer et al. (1990)’s criteria : (1) The sanctions effectively work if the goals of sanctioning country are limited, (2) target country has already economic difficulties, (3) there are generally friendly relationship between sanctioning and target country, (4) sanctions are forcefully implanted in single step, (5) sanctions create significant costs for the target, (6) the costs for sanctioning country are modest,

(7) the sanctions are not accompanied by covert action or military operation and (8) few countries are needed to implement the sanctions (Hufbauer et al.1990).

In order to provide effective answer for the research questions, research methods will be explained in sub-section of “Methodology of the Research”. As each thesis which include case study, this thesis will have also some limitations regarding the outcomes which will be acquired from this case study.

The purpose of this research is to identify the impact of economic sanctions by using a recent case as an example, that is the U.S Sanctions on the Russian Energy industry, imposed in 2014. In order to clarify the thesis title and research question, it needs to be elaborated “impact on what.” The word “impact” refers to “efficiency” of economic sanctions in altering the outcomes of International Relations and foreign policy decisions. Therefore, the research will be fulfilled through decision process of the U.S policy-makers and its effect on Russian Energy industry which is quite important for the Russian economy. This thesis will concentrate on observing whether economic sanctions are effective and relatively low-cost tool as a foreign policy instrument. This research will also serve to analyze another debate regarding reactions and coping skills of target/sanctioned country. Reactions and correspondingly its results will be also significant indicator to understand how do target states cope with the challenges which are arisen from imposing economic sanctions. Type of data will be also explained in methodology of the research section.

2.2 Literature Review and Theoretical Background

The literature for economic sanctions includes different perspectives, particularly in terms of efficiency of economic sanctions. Some authors emphasize the importance of foreign policy objectives that need to be achieved in the end of process. On the other hand, some authors criticize the measure of being successful in economic sanctions. For instance, Pape (1997) in his famous work “Why Economic Sanctions Do Not work?”, he starts by criticizing those who are in favor of economic sanctions. He particularly targets Gary Clyde Hufbauer, Jeffrey J. Schott, Kimberly Ann Elliott’s book, called as “Economic Sanctions Reconsidered”. Hufbauer et al. (1990) mount their arguments over 120 economic sanctions cases between 1914-1990 which they deeply reviewed. Hufbauer et al. (1990) argue that 40 out of 120 cases represent clear

success for the efficiency of economic sanctions since all these 40 cases achieved different foreign policy objectives.

Pape's (1997) main question is whether economic sanctions are an effective tool for achieving international politics goal. He identified main problems in the study of Hufbauer et al. (1990)", particularly in counting of cases, which were reviewed as samples. Pape (1997) argues that 5 cases out of 120 are counted twice. Pape (1997) criticized Hufbauer et al. (1990) and their way of measurement that the database used thereby has become indicators to measure how much economic sanctions have been effective was not accurate. He also emphasized that there are scholars whom are arguing that the rise of international economic cooperation after the Cold War may make sanctions even more effective than in the period of Hufbauer et al. (1990) study since alternative sources or markets for sanctioned goods are now less likely to exist. Pape's (1997) study challenges "optimism" regarding the effectiveness of economic sanctions.

Pape (1997) does not agree with the study of Hufbauer et al. (1990) and he does not accept the cases which were interpreted as successful. Pape (1997) revealed 2 challenges: how do target states cope with the economic sanctions and why these economic sanctions are not effective as much as Hufbauer et al. (1990) proposed? Pape (1997) argued that most modern states resist external pressure and nationalist feelings which are fueled by the attempt of initiating economic sanctions, also make states and societies, willing to resist this punishment (Pape, 1997). Pape (1997) argues that the states which have modern capabilities are also able to mitigate the economic damage of sanctions through substitution.

As it can be seen in Table 1., Hufbauer et al. (1990) have findings table while assessing the cases between 1914 and 1990. Based on 120 cases which they investigated, all these cases were reviewed based on the "Foreign Policy Objective" which can be found in Table 1. There are 5 foreign policy objectives and Hufbauer et al. (1990) calculate the number of achieved foreign policy objectives based on the results which were acquired from these cases (Hufbauer et al., 1990). Below data represent the summary of their findings regarding the efficiency of economic sanctions in 120 cases which Hufbauer et al. (1990) investigated (Pape, 1997):

Table 1 - Finding matrix for selected 120 Sanctions Cases in Hufbauer et al (1990)'s study**Table 1.***Finding matrix for selected 120 Sanctions Cases in Hufbauer et al (1990)'s study*

Policy Goal	Success	Failures	Ratio of success (% of total)
Modest policy change	17	34	33
Destabilization	11	10	52
Disrupt military adventures	6	12	33
Impair military in war	2	8	20
Other majority policy changes	5	15	25
All cases*	41	79	34

Note . Modified from Why Economic Sanctions Do Not Work, Pape, 1997

Pape (1997) tried to falsify Hufbauer et al. (1990) finding by showing some important elements which were ignored by them. Primarily, for Pape, the use of force was systemically ignored by Hufbauer et al. (1990). He argued that the use of force was main element in most of the cases which were interpreted as “successful” in economic sanctions cases but “force” was determinant for the outcome in these conflicts. Pape (1997) advocates that economic sanctions can be assessed as successful when “use of force by sanctioning country” is out of the equation. Economic sanctions cannot be considered as an efficient foreign policy if “use of force” is one of the vital determinants. Pape (1997) refers to failures in some cases which were assessed by “successful” by Hufbauer et al. (1990). Allies- Germany (1939), India-Hyderabad (1948), Nigeria-Biafra (1967), United Kingdom/United States-Uganda (1972), U.S – Nicaragua (1977) and UK-Argentina (1982) cases were representing the failure unlike Hufbauer et al. (1990) claimed. Pape (1997) argued that economic sanctions played little role in these six cases and result was achieved thanks to use of force during the process, not economic sanctions.

On the other hand, Robert Pape focused on GNP loss to target for target states. Pape (1997) also evaluated correlation between GNP loss and economic sanctions. As it can be seen through Table 2., correlation between sanction success and GNP loss is unproportional (Pape, 1997):

*Table 2- High Punishment and Sanctions Outcomes***Table 2.***High Punishment and Sanctions Outcomes*

Year	Coercer	Target	GNP Loss	Outcome
1967	Nigeria	Biafra	15.2	Failure
1951	UK/US	Iran	14.3	Failure
1965	UK/UN	Rhodesia	13	Failure
1982	US/Netherlands	Suriname	7.8	Failure
1975	US	Cambodia	6.8	Failure
1987	US	Panama	6	Failure
1982	South Africa	Lesotho	5.1	Overdetermined
1989	India	Nepal	4.6	Success

Note . Modified from Why Economic Sanctions Do Not Work, Pape, 1997

Pape's (1997) another critique for Hufbauer et al. (1990)'s study is scope of measurement. They did not exclude some incidents which were in fact representing trade wars, not economic sanctions. Pape (1997) advocates that the outcome of trade wars and economic sanctions are different. Therefore, including trade war cases to economic sanction cases would not bring healthy result, according to Pape (1997).

Another point which is worthwhile to mention is recent cases and their outcomes in economic sanctions. For instance, economic sanctions imposed on Iran and Russia show us another determinant which was revealed neither by Hufbauer et al. (1990) nor Pape (1997) since these sanctions imposed after they wrote these articles. This determinant is "trade profile of the country" and strength of their products in the market. This determinant can be summarized as "dependency".

Neither Pape (1997), nor Hufbauer et al. (1990) referred to what extent other countries – even coercer state- need exported product of target state. On the other hand, none of them mentioned the quest of alternative ways of target states to not be affected from sanctions. These could have been shown as main indicators to understand how much economic sanctions can be successful though. In this context seeking alternative ways and notion of "dependency" are related terms since third parties seek alternative ways to trade as long as they need the product of target states.

As it will be discussed in this thesis, Russia is one of the largest oil producers in international market and Russian energy companies play important role in energy

market. Therefore, this thesis will also include how much third parties (consumers) need Russian oil and gas and how much they are eager to find alternative ways to evade sanctions. All these efforts will help us to identify the efficiency of economic sanctions in this case study.

Apart from the disagreement between Pape (1997) and Hufbauer et al.(1990), Drezner (2000) discusses in which type of coercer can make economic sanctions more effective. Drezner (2000) discusses the link between international cooperation and sanctions efficiency by considering both multilateral and unilateral efforts in imposing sanctions. Drezner (2000) argues that there are two type of dimensions that create a typology in determining successful and unsuccessful sanctions: first one is relationship between coercer and target and other one is the relationship between primary coercer and secondary coercers. He asserts that coalitions without the support of international organizations tend to be more vulnerable. Because, multilateral or bilateral efforts which are not under any institution cannot last long in terms efficiency. Because, secondary coercers may renounce by considering different motivations (such as commercial relations, foreign policy interest). Hence, target state may prefer to wait to see how the coalition would divert rather than making concession to coercer states' requests (Drezner, 2000).

Another perspective for the efficiency of imposed sanctions is “pain-gain” theory. Although sanctions do not directly target people of sanctioned state, they may be affected from the sanctions. Tostensen and Bull (2002) refers to this theory and argues that the people of sanctioned country feel more oppression and face challenges, arise from the sanctions which are imposed by coercer country. Therefore, people of sanctioned state would start oppression on the government to revise the policies which are the reason of the sanctions. This theory is also called as “transmission mechanism”. Tostensen and Bull (2002) argue that coercers calculate cost benefit analysis by considering financial side of the case and also projection for political gains and losses.

On the other hand, Galtung (1967) previously made critics on pain-gain theory and he deemed this theory as “naïve”. He disproved this theory in his study of Rhodesia where the people of Rhodesia decided to support the regime. In this regard, he

advocated that there are other factors (such as nationalist feelings, anti-western approach) that determine the approach of people of sanctioned state.

As it was previously discussed, economic sanctions can be considered as a foreign policy instrument. In this context, understanding the components of foreign policy instruments are also crucial in order to conceptualize economic sanctions. Foreign Policy instruments generally consist of 3 main pillars: Military (use of power), Diplomacy (institutional and or bilateral efforts) and Economy (establishing economic ties among the actors). Having said that, Laswell (1936) also suggested that statecraft was pursued through four primary instruments. These are defined as information, diplomacy, force and economics. He evaluates information as a words and propaganda whereas economics is treated as goods and money (Laswell, 1936). Foreign policy instrument is defined as necessary tool in conducting foreign policy on behalf of the government.

In this regard, motivation laid behind on applying economic sanctions is also another matter of debate in terms of International Relations theory. No doubt, economic sanctions are the product of non-violent based foreign policy approach though it is also hard to categorize as a “liberal” approach since it may have negative impact upon the people of targeted countries.

It is widely accepted that after the Cold War, the World evolved into a U.S led unipolar order and the environment of International Relations was shaped in accordance with the aim of preventing a revival of Soviet influence. This policy approach was primarily conducted by the U.S. The pioneer of this policy was “containment” led by the U.S and operationally conducted by International Organizations such as NATO and the European Union (EU).

NATO and the EU’s enlargement policy in different periods included several countries which were under Russian sphere. Although the containment policy came from Cold War period, that was maintained in the post-Cold War by implementing “enlargement” policy which was the new form of “containment”, particularly in the continent of Europe (Parker, 2019). NATO’s enlargement approach under the “Evolution of NATO’s Open Door Policy” which brought some results such as integration of Czech Republic, Hungary and Poland in 1999. These integrations were followed with the accession of Bulgaria, Estonia, Latvia, Lithuania, Romania,

Slovakia and Slovenia in 2004. Croatia and Albania also joined NATO in 2009 (NATO, 2023). Similar approach was observed under the umbrella of the European Union. Most of these countries became members of the EU in 2004, 2007 and 2013 (European Parliament, n.d.).

U.S Foreign Policy approach did not only focus on liberal efforts such as using international organizations as a tool, but also utilized economic sanctions as an important instrument to defeat its rivals after the Cold War. The end of the Cold War has made the world economy more globalized and it has created new environment for international economy. Since the world became more globalized economically and it was more dependent on the environment which required globalization and democratization, sanction matters have become more important for the countries than ever (Jentleson, 2000). In this regard, economy and its instruments have been used as a weapon of choice for U.S and Western governments including intergovernmental and supranational organizations such as the United Nations and the EU.

Theoretically, economic sanctions of international relations theories were discussed in the past primarily as a part of the debates between realism, liberalism and constructivism. I would like to give a detailed evaluation of these three approaches contributing to the theory of Economic Sanctions. It will be further discussed hereby and relate these approaches to the present research on sanctions against Russian energy sector.

Realists see economic sanctions as an instrument which achieve foreign policy goals and it is mainly concerned with the efficient use of the economic sanctions for the national interests (Sedliar, 2017). For instance, Barber (1979) defines economic sanctions as “economic measures directed to political objectives” and he argues that realists also think that economic sanctions are not law enforcement but it is rather foreign policy instrument (Barber, 1979). This can be rationalized by assuming that realists see “anarchy” as a central concept in international relations and power is the main component of this field. Thus, economic sanctions have the characteristics of “coercive” and “bully”.

In this regard, the main role of the economic sanctions in international relations is to force the target state to fulfil the demands of sanctioning countries (Barber, 1979). It should be also noted that economic sanctions carve out a niche in the world stage

which adopts to realist approach. Therefore, the nature of economic sanctions is to seek of power and an effort for being dominant over the others. On the other hand, liberalists argue that economic sanctions should be applied by intergovernmental or supranational organizations to maintain peace and security among the states. Accordingly, Quincy Wright emphasized that use of sanctions must be approved by an international organization (Wright, 1983). Besides liberalists argue that economic sanctions are applied by the United Nations Security Council to cope with 4 main problems : (1) Armed Conflict between states, (2) Armed conflict within states, (3) International norm-breaking states, and (4) international terrorism (Sedliar, 2017). However it should be noted that economic sanctions are not always the subject of multilateral issues, it is mostly used for national interest of a single state. Therefore, it would not be hard to argue that economic sanctions are strategic weapons of the states unilaterally. On the other hand, constructivists evaluate economic sanctions neither like realists nor liberalists: constructivists argue that we are in the end of international system and this system failed to prevent wars and keep the peace. In this regard, alternative system should be sought. Constructivists do not defend military option to enforce the system, rather they see economic sanctions as an effective instrument since it is cheap, bloodless and effective in terms of forcing any aggressor (Sedliar, 2017).

2.3 Methodology of the Research

This study will include technical notions which are related to economic sanctions. Even though economic sanctions are the subject of foreign policy and international relations, there are various technical concepts to understand the content of cases in economic sanctions. These concepts include the scope of the economic sanctions which are applied against the target states. Necessary concepts to understand technical content of the thesis, are as follows:

Sanctioning/Coercer Country: This term represents the country which apply the sanctions against other states/individual/entities. Sanctioning country sets forth rules and scope of the sanctions against the aggressors. Coercer can be also used instead of sanctioning country.

Target/Target Country: This term represents the party(ies) which are subject to sanctions.

Comprehensive Sanctions: This term represents the scope of sanctions for the target party. Comprehensive sanctions include broad measures for the target state. It generally prohibits all direct or indirect import and export trade. It also restricts transactions in financial institutions except the specific license which is issued by related regulator of sanctioning country. Only transactions which fall under the content of license, are approved (OFAC, n.d.(a)). For instance, Iran is subject to “comprehensive sanctions” by Office of Foreign Asset Control – U.S Treasury Department.

Limited / Sectoral Sanctions: This is another term for the scope of sanctions. Parties which are subject to limited sanctions, are partially restricted in their trades and financial transactions. The limit of sanction may vary in accordance with the sanction strategy of sanctioning country. The current study includes case study of U.S Sanctions on Russian Energy Industry and this case is an example for limited sanctions. Russia is only subject to limited sanctions, imposed by the U.S and it mainly targets energy sector of Russia. According to US sanctions literature, this type of sanctions can be also called as “sectoral sanctions”.

Regime or List Based Sanctions: This is list based sanctions which represent specific regime or members of terrorist groups. This list may also contain foreign governments which are believed to support terrorist organizations and or persons.

This thesis will proceed as a case study which is sufficiently enough and capable of giving an insight regarding the efficiency of the economic sanctions in international relations. Because the United States is one of the most powerful economies in the world and U.S is also diplomatically and militarily robust. Therefore, US has been chosen as a case study. Moreover, the U.S is ascendant force in international finance since they are the regulator of U.S Dollar currency and capable to control international market over the effect of U.S Dollars that makes the U.S. as the most exemplary country for a study of economic sanctions. U.S currency is the universal reserve currency in international market as its value is determined according to the spot supply-demand conditions. Large American Corporations are capable to issue bonds which are purchased by foreign investors in US Dollar.

On the other hand, Russia is one of the most important energy players in the oil and gas market. Russia generates very significant revenue from oil and gas business thanks to high export proceeds. Russia is effective in various type of the energy such as crude oil, natural gas and now even shale gas. As a part of export strategy of Russia, the country develops energy export strategy and Russian Government aims to create new infrastructure in every possible locations: The Baltic Sea region, the Black Sea region and the Arctic (Vatansever, 2010).

These two countries were not selected accidentally as the subject matter of this study. Both U.S and Russia have adequate features to reflect the adequacy of sanctions' efficiency from both sanctioning and target country perspective. One is economically strong and capable to govern also outside of U.S jurisdiction for the applicability of economic sanctions and other one is significant energy player in the market and she is quite dependent on the revenue which is generated from oil and gas business. Hence, the case of U.S Sanctions on Russia will be reliable indicator for efficiency of economic sanctions in terms of economic and diplomatic strengths of both countries.

This study follows an inductive approach for analyzing its findings. The study tries to answer research questions. It does not have hypotheses to be proven. Accordingly, this study does not proceed by using quantitative techniques that are shaped by dependent and independent variables. In this regard, this thesis will be based on qualitative method which will include the analysis of primary sources that includes but not limited to:

- Executive Order and economic measures of US Authorities,
- Bilateral-multilateral agreements,
- Role of Russian Energy Companies in global energy market,
- Dependency of third parties on Russian energy and export/production data of Russia in oil and gas.

There will be also separate part regarding how does the Russian energy companies cope with the challenges, arisen from U.S. sanctions. Thus, these sources will be essential to understand general framework of the U.S sanctions, imposed upon the Russian Energy Industry and particularly the stance of third parties for these sanctions will provide insight regarding how the industry was affected by U.S sanctions.

This introductory section introduced the subject matter of the thesis and the way in which research will be conducted. It has mentioned definitions and the conceptual framework of the thesis as well as methodology that will be used in the course of research. In the next section the study will report on instruments of foreign policy. Now, economic sanctions will be investigated in more detail firstly by focusing on alternative foreign policy instruments. No doubt, one of which is economic sanctions. But that is not the only one as foreign policy tools may include diplomacy, military threat, agreements, collaboration and cooperation.



3. THE INSTRUMENTS OF FOREIGN POLICY

The governments shape their foreign policies based on political circumstances and outcomes, arising from the richness of surrounding political circumstances. There are main non-violent instruments in foreign policy when the governments do not seek their political ends by using arms. In this regard, states are interpreted as actors which have some political aims and the main elements of these actors are the soldiers and diplomats (Nye & Keohane, 1971).

Diplomacy is a conventional way of establishing foreign policy agenda and legal framework of diplomacy was established centuries ago. In their articles, Joseph Nye and Robert Keohane mostly focused on transnational relations which refer to contracts, collaborations and interactions which are not part of central foreign policy bodies. By taking into consideration of the fact that Nye and Keohane believe in neoliberal values, there is no surprise that seeking an argument for the strength of contact and cooperation in foreign policy is significant. On the other hand, B. Dan Wood and Jeffrey S. Peake argued that foreign policy agenda setting is made through domestic politics which mostly focus on mobilization of interests, subsystem formation and problem perception (Wood & Peake, 1998).

Before going into more depth for instruments of contemporary foreign policy in 21st century, this section requires an explanation how contemporary foreign policy instruments became *de facto* factors in shaping the international relations. Therefore, explaining major breaking point in international politics would need to be further detailed.

Peace of Westphalia in 1648 which is still seen as an opening of modern age and legacy of today's international relations and diplomatic framework, is one of the major breaking points in international relations. There are three significant consequences of Peace of Westphalia in terms of establishing today's diplomatic rules. First and foremost is sovereignty of the states. Second one is equality among the states and third one is the principle of non-intervention in the internal affairs of States (Schmidt, 2011). In this regard, Sebastian Schmidt also defines the international system through Peace of Westphalia and he argues that "peace was later transformed into a conceptualization of the international system and Westphalia has always been

perceived that it is only limited to supremacy of state sovereignty, territoriality and nonintervention” (Schmidt, 2011).

Even though the Westphalia could establish an order which had been vital tool for keeping peace among the states, it also entailed new consequences in international relations. In this context, Schmidt (2011) also suggests that albeit Peace of Westphalia brought new values in respect of “sovereignty of states” and diplomatic framework among the states, it also triggered globalization, established new openings for non-state actors which crossed the boundaries of Westphalian Interstate system (Mittelman, 2000).

In this regard, foreign policy instruments of 21st century were shaped with some of major breakpoints in international relations such as Peace of Westphalia. The peace profoundly revealed that new order would not consist of new wars that would harm the sovereignty of states, but it would include new values that may be used against adversaries.

3.1. Dynamics of Foreign Policy

As explained in introduction of this chapter, there are different dynamics in foreign policy and these dynamics were shaped throughout major incidents in international relations and these breakpoints revealed that how these dynamics also framed “to derive national interest”. Particularly, after establishment of the United Nations in the post-World War II era, main pillars of international politics were based on “keeping peace” and “maintaining diplomatic efforts” in any circumstances. Thus, the countries started mostly focused on non-violent options such as targeting “aggressor” country by using various instruments such as creating public opinion, applying tough trade tariffs, travel restrictions and imposing sanctions.

3.1.1 Different Tools in Foreign Policy

Conventional tools in foreign policy are primarily diplomatic corps and ministry of foreign affairs of a country. However, by starting from the end of the Cold War, new period began to shift for new world order. From bipolar to unipolar order, the United States enjoyed framing “new rules” of international politics as a unique power.

Dissolution of the Soviet Union brought some consequences which also led to new developments in the Balkans, not only in Caucasia where the Soviet Union dominated for many years.

Although the Soviet Union and Eastern Bloc collapsed, Western Bloc continued its existence under institutional umbrella since the members would prefer NATO to exist since solely on national basis security measures would not be more advantageous and profitable than collective structure of NATO (Kamp, 2013). Military power of the countries remained significant instrument even in post-Cold War period. New developments in various regions and the emergence of the new countries in post-Cold War period, brought new approaches in international relations alongside.

After the collapse of Berlin Wall and Soviet Union, the World began to adopt new understanding in their relations with other countries. Being close to a polar or being member of a camp gave place to cooperation among the countries to develop economic relations and -consequently- increasing their revenues, derived through the trade with other stakeholders. Immediate consequences of the end of the Cold War excited international community and even some scholars in international relations wrote articles regarding the victory of western society and also suggested that western liberalism prevailed in the end of the Cold War (Fukuyama,1989).

Even though United States continued to be principal actor in different regions after the end of the Cold War, western liberalism was one of the most prominent results in respect of post-Cold War era and it was mostly revealed in European continent. Western liberalism led to development of capitalist approach and the idea of globalization while the United States freely enjoyed shaping new rules of international politics (Duffy & Frederking, 2009).

Starting from early 1990s, the world witnessed the rise of neoliberal ideas and its institutions. Therefore, economic co-operations (institutions) became significant tool in foreign policy agendas. Foreign relations started to develop thanks to economic relations among the countries. Even, success in foreign policy started to have been measured through the parameters in economic parameters. Economic relations and trade volume became primary agenda item in bilateral/multilateral meetings of the leaders (Kirişçi, 2009).

Despite the fact that post-Cold War period represents unipolarity, particularly in military, economic developments were not unipolar: EU, Asia-Pacific Economic Cooperation and others were among the significant economic alliances in the post-Cold War era.¹ Particularly, dissolution of the Soviet Union and end of the Cold War brought economic interdependency alongside and it led to the proliferation of transnational actors, emerging new independent economic sources and the spread of technology. Therefore, international community agreed on acting multilaterally to manage appropriately these shared interests. This approach provided strong incentive to develop international cooperation (Nye et al., 1991).

Especially, Trilateral Commission which was founded in 1971 and reinforced itself after the end of the Cold War, became one of the primary instruments to develop international economic and trade cooperation. Transnational issues, occurred after the Cold War, forced the United States and major powers – such as Japan and the ones in Europe– to act as principal actors in international cooperation (Nye et al., 1991). All conditions were conceivable for Europe to set its agenda in economic cooperation. Independence movements had begun and most of the Soviet satellite states had declared their independence including the ones in the Baltics where they border the EU.

The Warsaw Pact was also dissolved and COMECON which was economic cooperation tool of Eastern Bloc and the Soviet Union, was also dissolved (Nye et al., 1991). Europe continued to form its alliance by establishing European Union with Maastricht Treaty in 1992 and the Union became effective in 1993. Community of 6 transformed to Community of 12 and European Union was officially formed by 12 founding states. Primary aim was to strength the reunification of Germany and be part of globalization efforts in terms of economic cooperation among the members. The Union was aiming to form monetary union and this project was completed in the Treaty of Maastricht in 1992 under the name of “Economic and Monetary Union of the European Union”. This common initiative was concerning economic convergence criteria, inflation rate and exchange rate stability (Bean, 1992).

Against this background, it is safe to assert that the post-Cold War period was most well-known example to show to what extent economy and trade cooperation became

¹ Reinforced its existence by evolving from European Coal and Steel Community and European Economic Community

foreign policy along with liberal values that were established after the communist camp dissolved and countries used economy as a weapon while they shape their foreign policy agendas. Therefore, by starting from the beginning of 1990s, we have witnessed a new way of foreign policy settings, particularly avoiding military option (except for multilateral efforts against ethnic conflicts). This approach forced countries to adopt private sector economy and become a part of globalized world. All these developments led to new theories in international relations to establish theoretical framework of this new order.

3.1.2 The Concept of Soft Power as a Foreign Policy Instrument

At this juncture we need to introduce a new concept that will be a useful tool in developing an understanding of a better insight into the post-Cold War Era, particularly in Europe. There is no doubt, the notion of “soft power” belongs to neo-liberals and particularly Joseph Nye had significant studies on “soft power”. First article of Joseph Nye regarding the notion of soft power was published in 1990 with the title of “Soft Power” in Foreign Affairs, just after the Cold War. Main theme of the article exhibits the place of the United States without Soviet threat in the Post-Cold War era (Nye, 1990).

Nye (1990) emphasizes how does the United States divert in foreign policy, and he explains how the role of United States was changed after the world order became unipolar after the end of the Cold War. Thus, Nye (1990) comments on how the definition of power changed in a post-Cold War period and conventional meaning of power is no longer valid in terms of maintaining effectiveness in international relations. As he predicted, 21st century would be more difficult for the United States since world politics would be more complex due to differentiation in political environment (Nye, 1990).

In this context, it should be questioned what was the changing nature of power in world politics; which elements of world politics underwent a change after the end of the Cold War? Particularly, private companies started in operating in different countries, continents and this expedited the globalization process which led to the growth of private sector. Therefore, other actors apart from the states, became important in world politics as Nye (1990) suggested in his article. He emphasized that

although multinational companies lack significant instruments of politics such as military and law enforcement, they have even greater economic resources than some countries in Africa.

Nye (1990) argues that multinational corporations are more successful compared to countries themselves, in terms of achieving economic ends. In this context, it can be argued that how national security was perceived during the cold war, should be now considered by taking into account of economic measures and conditions. For instance, countries may choose military option to provide energy security by sending their troops to the conflict zone, but energy security can be also maintained by making dependent other countries for country's energy resource and encouraging dependent countries to cooperate for protecting exporters' interests.

Therefore, countries accepted multinational corporations as a partner to maintain economic relations with other countries. Likewise, economic growth of the countries started to be dependent on the involvement of national and multinational corporations in private sector and investments. Thus, leaders today make announcements on the importance of the investments, and they say how foreign investments are significant for local economy. Similarly, bilateral economic relations are also important since a local company would contribute to its own country's economy when they invest in another country or start exporting which would lead to narrow the foreign trade deficit.

Money and monetary instruments became principal elements to gain strength in today's international politics. There are several reasons why economic strength is the indicator of being powerful: firstly, a new way of relationship has been revealed: countries started to compete over economy. Secondly, countries understood that animosity can be resolved by using more efficient and less costly option compared to conventional way of conflict resolution: military. In this context, the concept of interdependency is also crucial; Nye (1990) defines interdependency as unevenly balanced mutual balance.

But what we are calling "soft power" or who can be defined as "soft power"? Or an alternative question, what are the requirements for being considered as soft power? There is no doubt, states tend to use some instruments in order to exercise sovereignty. Using military was primary option during the Cold War. Certainly,

military was not used for “hot war” but way of thinking to resolve problems, were mostly military oriented during the cold war. After the end of the cold war, states started to enjoy the benefits of the globalization. States who are capable to put forward its commercial identity and having the edge over the others thanks to its commercial peculiarities, can be defined as soft power. If a country is adequately capable to defend its interests by using commercial measures without considering military option, that state can be decent example of being soft power. Soft power does not only refer to “protecting own interest with trade/economy”, also refers to “being capable to impact and steer others owing to commercial capacity”.

After the attacks on Twin Towers in New York, NY, in 2001, now widely known as 9/11, the world started discussing the notion of “smart power” as well. This term was also discussed by mostly Joseph Nye. Since he was first international relations scholar, introduced “soft power” in the late 1980s, changing nature of international relations and international politics “forced” him to develop his first term.

This term was developed by Nye because he was arguing against the misperception that soft power alone is sufficient to produce effective foreign policy (Nye, 2009). Nye (2009) argues that there are various basic ways to affect the behavior of others, to obtain what the policymakers want. These are coercion and attraction. No doubt, coercion is the conventional way of hard power whereas soft power is the ability to obtain preferred outcomes through attraction.

Nye (2009) argues that neither soft power nor hard power alone is appropriate and adequate tool for foreign policy. It would need to combine the instruments of both hard and soft power which is called “smart power”. Major elements of soft power are considered as culture, values and exemplary policies. However, these are not always helpful to resolve all problems which require different methods like the ones in hard power. Some issues – such as promoting democracy and protecting human rights and raising awareness in social issues – cannot be resolved with the tools of hard power. In such circumstances, a country which has both tools of soft and hard power, can apply measures which would be the mixture of both. Economic sanctions – for instance – are good example of smart power. The one who is capable imposing sanctions, has already formed public opinion and received international support. That

shows how this country is successful in public diplomacy since they could convince other countries regarding the legitimacy of these sanctions.

3.1.3 Economic Sanctions as a Foreign Policy Instrument

Before coming to economic sanctions, relations with economy and foreign policy are worthwhile to mention. Therefore, we would be able to grasp general framework of relations between economy and foreign policy. Otherwise, it would not be possible to predict possible impact of economic sanctions on countries. Hans Morgenthau (1959) analyzes the junction points of economy and foreign policy. Morgenthau (1959) argues that there are various factors which make nations powerful: these are geography, natural resources, national morale, industrial capacity, military preparedness, population, national character, quality of diplomacy and the quality of government. Among these factors, natural resources, industrial capacity and the quality of government are also considered as economic factors.

Government is responsible to manage the foreign policy by taking into consideration of these factors since all of these terms are interrelated. For instance, Morgenthau, emphasizes the importance of self-sufficient countries which would have great resilience in national/economic crisis. Morgenthau specifically evaluates natural resources as significant assets in “waging war” and also in peace time. Therefore, raw materials are quite important in terms of self-sufficiency and dependency of others (Morgenthau, 1959).

Particularly, since the end of Cold War, Economic Sanctions have been significant foreign policy instrument for the states to create oppression on target states. No doubt, the ultimate aim of this policy is to convince and force target states to re-shape its policies which are the reason of the sanctions. Thus, countries which are capable to impose sanctions on others, freely exercise imposed sanctions on other countries whose policies and approaches were not affirmed. Therefore, coercer² countries would be able to change the sanctioned state’s policies which threaten the interest of coercer country.

² Countries which impose sanctions, are called as “coercer” or “sender”. This thesis uses the term of “coercer” or “sanctioner”.

Carisch and Rickard-Martin (2014) state that sanctions have been used as a political tool to coerce, constrain and deter trade privileges of others. Despite the fact that economic sanctions gained ground in setting foreign policy agenda, it is quite controversial whether it is effective and result-oriented instrument in foreign policy. Former U.N Secretary-General Kofi Annan also evaluated economic sanctions as “a blunt instrument” since it is mostly targeting large numbers of people who are not primary targets when imposing the sanctions (Allen & Lektzian, 2013).

Based on Morgenthau’s article (1959), economic strengths of the nations are derived through the natural sources if these sources could be transformed to industrial capacity. In this regard, if this country is targeted by another country for economic sanctions, it would also show to what extent sanctioned country would resist against the measures. Even though Morgenthau (1959) does not directly refer to applicability of economic sanctions, the article also addresses the role of private companies in foreign policy. For instance, he argues that government used private companies abroad for the purposes of United States foreign policy. Not surprisingly, countries need their private companies to impose economic sanctions effectively. For instance, U.S government is entirely dependent on cooperation of U.S Financial firms and banks to impose sanctions on designated entities and individuals. These banks play vital role in freezing and blocking assets of sanctioned parties. Not only blocking and freezing operations, but these firms also prepare sanction trend reports and submit to the U.S. regulators.

Therefore, the U.S. regulators may determine road map to fight sanction evasion techniques of target countries and designate new entities and individuals. Foreign policy agenda of coercer country does not only bind coercer and sanctioned country. Any sanction decision also binds other countries which may have trade relations with coercer and sanctioned country which is also dilemma for third country. Because third country may either frustrate coercer country by not complying with sanction decision or harm trade relations with sanctioned country by adopting the principles of coercer country. This may create another problem for third parties, according to Otto Wolff von Amerongen (1980): sanctioner countries where self-sufficiency is temporarily possible, would unlikely empathizing with the problems which can arise for the third-party countries (Von Amerongen, 1980).

Amerongen (1980) also reveals some conclusion in specific to sanctions on Soviet Union in 1970s which are also worthwhile to discuss and also a matter of debate in this thesis: Sanctions may lead to economic losses for both parties, but the political aim is never achieved. Secondly, foreign trade dependence of opponent is overestimated whereas ability to overcome is underestimated. Sanction policies and procedures will be always inclined to gaps.

While discussing the role of economic sanctions in foreign policy, Morgenthau's concept of power is also critical. Because, efficiency of economic sanctions is theoretically connected to power debate in international relations theory. As Morgenthau (1978) defines, "power may comprise anything that establishes and maintains the control of man over man". Since this thesis discusses the efficiency of sanctions over a case study, I will be assessing the impact of economic sanctions from realist perspective. In this regard, the relation between the one who exerts dominance and the one who is more recessive, reveals another discussion: the capacity of the actors. Kenneth Waltz (1979) discusses the structure of neorealism through his observations over domestic politics and questions how they are applied to international system. Thus, there are 3 characteristics of domestic political structures: First one is ordering principles which refer to hierarchical structures in domestic politics whereas he defines same level as an anarchic for international politics. Second one is regarding the functions which are fulfilled by different units in domestic politics. Third one is about the distribution of capabilities which is also relevant concept in terms of determining sanctions efficiency in this study. Waltz (1979) suggest that the distribution of capabilities leads to change in international structure. He argues that change in international system might be possible if there is also change in the capacity of the states. According to Waltz (1979) the states rely on their own powers and resources to survive in international system. Considering this fact, the relationship between sanctioning and target country is significant in terms of using capability to achieve its goal or cope with challenges.

3.2 The Emergence of Economic Sanctions as a Foreign Policy Instrument

This part will include different sub-sections which will explain the evolution of economic sanctions, general overview and scope of economic sanctions and. Before passing to governance of economic sanctions in international politics, this part will explain "introductory level" of economic sanctions as an overview.

3.2.1 General Overview of Economic Sanctions

It would be reasonable to start with the definition of economic sanctions in this part. Pape (1998) defines economic sanctions as “using economic pressure against other states for a variety of political purposes”. This definition tells us that economic sanctions ultimately aim to obtain political end in case of a conflict. This conflict may emerge as non-violent and diplomatic talks can halt in the end. At this point, one of the parties may choose use “sanctions” as a weapon if it is reluctant to choose conventional way of conflict: military. On the other hand, Galtung (1967) defines economic sanctions as “*actions initiated by one or more international actors (the “senders”) against one or more others (the “receivers”)*”. Galtung (1967) argues that this action may have either or both of two aims: to punish sanctioned parties by impoverishing them and/or to force them to comply with the expectations of the coercer.

We can trace back the roots of economic sanctions to the ancient history. Megarian Decree in Circa 432 BC seems oldest example of economic sanctions in the history. Main purpose of this decree was to prohibit Megarians to trade and travel on Athenian land due to disagreements between Megarians and Athenians (Tsebelis, 1990). There are also other examples for the roots of economic sanctions in the history: Reciprocal sanctions of Britain and France in Napoleonic Wars between 1793 – 1815, Britain-France sanctions on Russia in Crimean War which was resulted with defeat of Russia and prevention of division of the Ottoman Empire and U.S sanctions on Spain in Spanish-American War in 1898 (Hufbauer et al., 1985).

One of the main issues in economic sanctions, is the notion of “efficiency”. As many scholars discussed so far, research questions of these studies are generally based on

“do economic sanctions work?”. Reason of asking this question, arises from the factor of self-interests of the states. As Tsebelis (1990) is also questioning in his article, what are the conditions of making comply of other states for the sanctions and how coercer state make sure that other countries will abstain from available profitable alternatives because of retaliation fear of coercer and other states which comply with the sanctions (Tsebelis, 1990).

In the literature, prominent scholars such as Hufbauer, Schott, Elliott and Pape, generally evaluate economic sanctions and its efficiency over various factors, as previously discussed (Hufbauer et al., 1990). In this regard, these scholars also take into consideration behavioral change of sanctioned country in order to understand whether sanctions took effect.

3.2.2 Scope of Economic Sanctions as a Foreign Policy Instrument

Economic sanctions have different scopes in terms of sanction imposing dimension. Countries and/or organizations may impose sanctions on individuals, entities, countries and even political parties. At this point, the scope of economic sanctions may determine to what extent these names would be subject to the sanctions. Scope of the sanctions may vary, depending on sanction policy of coercer country against sanctioned country.

Coercer country may only prohibit certain industries if designated country is heavily dependent on those industries. On the other hand, coercer may choose imposing “comprehensive” sanctions if it really aims to devastate sanctioned country’s economy. The term of “Comprehensive Sanctions” represents the scope of sanctions for the target party. Comprehensive sanctions include broad measures for the target state. This type of sanction generally prohibits all kind of commercial relations and it particularly does not allow to use the financial institutions in its jurisdictions. Only exception is licenses which are issued by the sanction regulator of the coercer.

On the other hand, selective sanctions are another term for the scope of sanctions. Parties which are subject to selective sanctions, are partially restricted in their trades and financial transactions. The limit of sanction may vary in accordance with the sanction strategy of sanctioning country. For instance, U.S Sanctions on Russian Energy is an example for selective sanctions which is also called sectoral based

sanctions. (Specifically called as “Sectoral Sanctions Identification” in U.S Sanction program). Russia is only subject to selective sanctions, imposed by the U.S and it mainly targets energy sector of Russia.

This differentiation mostly reveals in sanctions, imposed by the countries. Because organizational based sanctions such as United Nations (UN) or the EU, focus on certain sectors or specific products or goods of the country. On the other hand, sanctions imposed by the countries – particularly U.S sanctions – have sharp framework in terms of governance of the sanctions.

If we go through the examples, that can be argued that U.S sanctions have different characteristics. As briefly explained above, U.S sanctions also adopt either comprehensive or limited sanctions in general. For instance, U.S sanctions imposed on Venezuela, are good example for limited for selective sanctions which only target various individuals and entities, not entire country.

On the other hand, U.S sanctions on Iran, target all entities, governmental officials and entire country. Therefore, it also devastates the people of Iran even it is indirect. From this aspect, this type of sanctions, is considered and classified as comprehensive sanctions. Technical details of comprehensive and selective sanctions can be summarized as follow: comprehensive sanctions also include the “using of blocking of assets” of designated parties whereas selective sanctions include “trade restrictions” and denial of the transactions through the banks of the coercer country.

Apart from comprehensive sanctions, selective sanctions play different role in foreign policy and these sanctions are also interpreted as “smart sanctions”. Smart sanctions may include arm embargoes, travel restrictions or some financial sanctions such as prohibiting selling or buying of financial instruments (bond, equity etc.) of sanctioned country. Main characteristic of smart sanctions is look out for the people of sanctioned country. It generally avoids devastating welfare of the people. It mostly focuses on specific individuals and governments in general. However, it is also dilemma that targeting government and/or government official may lead to deterioration in people’s welfare and living conditions.

Either comprehensive or selective, would eventually create impact on sanctioned country even though this impact can be calculated by both parties. In this regard, it should be focused on to what extent these sanctions may create effectiveness for

sanctioning country. Based on different studies of certain scholars such as Robert Pape (1997, 1998), Hufbauer et al. (1985, 1990) and Galtung (1967), outcomes of smart sanctions may differentiate.

3.2.3 Economic Sanctions in Contemporary International Politics

This part will show the actors of sanction governance and execution in contemporary international politics. This part will also suggest prominent actors in sanctions and provide information regarding different sanctions imposing bodies such as unilateral and multilateral (under umbrella of an organization). Moreover, this part will be briefing regarding U.S sanctions in different jurisdictions.

3.2.3.1 Sanctions Imposing International Organizations and the UK and the U.S

Sanction imposing bodies can be unilateral (countries) or multilateral (supranational/international organizations). Mostly, a country can be sanctioned by both another country and an organization. For instance, Iran is sanctioned both by U.S. and U.N. Even though the content of the sanction may vary; countries also try to be aligned with the sanctions of international organizations to avoid any comment which is questioning the legitimacy of unilateral sanctions.

3.2.3.1.1 European Union (EU)

European Union impose sanctions under the name of “restrictive measures”. European Union define sanctions as follows: restrictive measures (sanctions) are a fundamental device in the EU's common foreign and security strategy (CFSP), through which the EU can intercede where important to prevent struggle or react to arising or current emergencies. Despite their conversational name “sanction”, EU restrictive measures are not punitive. They are expected to achieve an adjustment in strategy or movement by targeting on non-EU nations, as well as entities and individuals, responsible for the malign behavior at stake (European Commission, n.d.(a)).

Main objectives of EU sanctions, are to promote international peace and security, preventing conflict, supporting democracy and defending principles of international law, based on saying in the web-site of European Commission (European Commission,

n.d.(a)). Type of these sanctions bear a resemblance to unilateral sanctions. Therefore, EU sanctions also include asset freeze, arms embargoes and travel ban. However, EU sanctions differentiate from U.S sanctions in governance of these sanctions. EU sanctions can be only applied in EU jurisdiction and EU person whereas U.S. sanctions can also extend to outside of the U.S. thanks to financial institutions which use U.S located financial institutions as a correspondent bank.

Since EU feel acting as a responsible supranational organization, institutional stance in prominent international issues may vary compared to unilateral sanctions of a country. For instance, U.S. may act more rigid in sanctions imposed for Iran whereas EU may act softer in positive developments (European Council, January 2016). ³

The Directorate-General for Financial Stability, Financial Services and Capital Markets Union is main responsible under the umbrella of EU in terms of governance of EU sanctions. This body determines the requirements of sanctions to be imposed. This body is also responsible for monitoring, the implementation and enforcement EU sanctions.

3.2.3.1.2 United Nations (UN)

United Nations impose sanctions by relying on Chapter VII of United Nations charter. Security Council sanctions have taken various structures, in quest for an assortment of objectives. The measures have gone from exhaustive monetary and international embargoes to more targeted on measures, for example, arms embargoes, travel bans, and monetary or product limitations. The Security Council has applied sanctions to help peaceful transitions advances, dissuade non-constitutional changes, constrain terrorism, protect human rights and promote non-proliferation (UNSC, n.d.). Most legitimate side of UN sanctions, is to get support of member countries. Since UN is treated as a platform that can gather all member countries and considered a mutual ground where member countries may cooperate, sanctions imposed by UN are considered as a consensus of many countries and it is being seen more recognized.

³ Yet, EU sanctions on Iran have been softened in 2016 and some sanctions were lifted by EU due to positive developments in nuclear talk even though Trump Administration withdrew from the agreement.

3.2.3.1.3 United Kingdom (UK) and United States (US)

In this section we are going to examine each and individual country practice with economic sanctions. We will particularly focus on the UK and the United States since these two countries used economic sanctions as foreign policy instruments more often and more effectively.

UK -apart from EU sanction list – also conduct its own sanctions. This list may bear some resemblances to the list of the EU but UK also enjoys shaping its own sanctions that looks after its own political interests. Sanctions governance is conducted by Office of Financial Sanctions Implementation Her Majesty's Treasury. UK also applies different types of economic sanctions such as asset freeze, trade sanctions and arm embargoes. Apart from economic sanctions, UK also imposes travel bans. UK has different variety of trade restrictions designations which some of them are not part of U.N or E.U sanction lists (UK Government, 2012). Jurisdiction of these sanctions in terms of applicability, is stated as follows in the official source of the UK: "UK sanctions measures can apply to action taken by anyone in the UK (including its territorial waters, and action taken by a UK national outside of the UK)." They also apply to companies incorporated in the UK (UK Government, 2019).

U.S sanctions can be seen as most powerful unilateral sanctions in international politics since these sanctions can also extend to outside of U.S jurisdiction unlike the other unilateral or multilateral sanctions such as US or UN sanctions. This feature of U.S sanctions, arise from the ability of using US Dollars as a most convertible currency in international finance markets. Since U.S. has a control over the US Dollars which flow through the accounts of different jurisdiction, they enjoy regulating its own currency by saying "dos" and "don'ts". U.S sanction programs are conducted by U.S Department of Treasury the Office of Foreign Asset Control ("OFAC").

OFAC administers and enforces economic sanctions against targeted regimes, entities, individuals, foreign countries and terrorists. Sanction list is being shaped based on U.S Foreign policy and national security interests of U.S. There are different lists and programs under the structure of U.S sanctions. Most known list of US sanctions, is Specially Designated Nationals ("SDN") list which includes some individuals, entities, state institutions and even political parties. This list prohibits all US person

from engaging business with these parties in any circumstances (except humanitarian aid). These lists are not only applicable for US persons but they are also extended to non-US persons which/who would like to execute USD transactions wherever they are located. However, there is also another aspect of U.S sanctions which make it “imperious”: U.S government threaten non-US persons as well if they do not comply with U.S. sanctions even though the transaction is not being executed in US Dollars.

Result of non-compliance with U.S sanction may lead to designation of that parties as well. Therefore, financial institutions which need correspondent banks, incorporated in US and clear US Dollar transactions of these non-US persons, should be complying with U.S sanctions requirements.

OFAC applies different types of sanctions on other countries, depending on the program which is designated for entities, individuals or countries in general. For instance, only exception for U.S persons in Iran transactions, is humanitarian aid. Except humanitarian aid, U.S persons are strictly prohibited from engaging business with Iran directly or indirectly. In this regard, Iran – as a whole country- is impacted from U.S sanctions. On the other hand, OFAC has also a program called as “Balkans-related sanctions” but it does not mean that all countries in Balkans, are subject to U.S sanctions. On the contrary, these sanctions include some individuals and entities which were involved in Yugoslav Wars in favor of Slobodan Milosevic and his echelon.

U.S sanctions also include asset freeze, trade sanctions and sanctions on financial instruments of designated parties. Particularly, sanctions on financial instruments are decent example for target-based sanctions which focus on specific product of sanctioned state (OFAC, n.d.(b)).

3.3 Different U.S Sanctions Programs

This sub-chapter will focus on a variety of U.S sanctions on the basis of target countries. Main aim is to uncover the variety and flexibility of sanction applications as they are put into practice for certain aims. First, the sub-chapter starts with Iran. Then, it will be continued with other countries which are subject to comprehensive U.S sanctions.

3.3.1 Iran

The United States impose sanctions on activities of Iran since 1979, due to the seizure of U.S Embassy in Tehran. The Department of State's Office of Economic Sanctions Policy and Implementation is responsible for enforcing and implementing a number of U.S. sanctions programs that restrict access to the United States for companies that engage in certain commercial activities in Iran (U.S. Department of State, n.d.(a)). During 1980s, main objective of United States, was to halt Iran's strategic activities in the Middle East. Particularly after 2000s, sanctions on Iran were mostly discussed in terms of nuclear activities of Iran and International sanctions were also launched against Iran.

Iran program of OFAC is blocking and asset freeze program (Humus & Thomas, 2022). Even though Iran has closed to an agreement with P5 + 1 (Permanent members of UNSC and Germany) in 2014, these efforts have failed due to attitude and policy change of Trump Administration in 2016. Trump administration re-imposed all secondary sanctions which also impact non-US persons in their transactions involving Iran. No doubt, this policy change has impacted Iran's economy negatively and Iran's oil exports have decreased dramatically (Humus & Thomas, 2022). Iran is subject to comprehensive sanctions by US.

3.3.2. Cuba

Cuba is also among the US sanctioned countries and its history with sanctions was started earlier compared to others. In 1960s, United States imposed trade embargo on Cuba and main objective was to isolate Cuban government. Cuba bears a resemblance to Iran in terms of changing sanctions policy of United States. Even though sanctions on Cuba were eased during Obama administration, it was hardened by Trump Administration again in 2019. On June 16, 2017, President Trump issued a National Security Presidential Memorandum (NSPM) on Strengthening the Policy of the United States Toward Cuba. On November 8, 2017, the Departments of State, Commerce, and the Treasury announced certain changes to implement President

Trump's June 2017 NSPM (U.S. Department of State, n.d.(b)). Cuba is subject to comprehensive sanctions by US.

3.3.3 Syria

Syria's restriction history was not started with civil war of Syria after Arab spring. In fact, Syria has been already designated a State Sponsor of Terrorism since December 1979 by the U.S. Additional sanctions were also imposed for Syria in 2004. Based on information provided in official source of Department of State, United States decided to impose sanctions in April 2011 with the Executive Order 13572 which blocks the assets/property of Syrian high-level officials who are responsible from human rights abuses. In May 2011, the U.S Government decided to take additional steps for continuing aggression of Syrian Government and imposed additional sanctions on Syrian officials including President Bashir al-Assad (U.S. Department of State, n.d.(c)).

3.3.4 North Korea

North Korea was first sanctioned by U.S in 1950s and this policy was changed several times between 1950 and 2008, depending on changing political conditions between North Korea and US. Today, most powerful reason for imposing sanction on North Korea for US, is nuclear activities of North Korea. North Korea is subject to comprehensive sanctions by US. Apart from nuclear activities, United States classified North Korea a state sponsor of terrorism. Even though George Bush removed North Korea from the list as part of denuclearization negotiations, Trump administration re-imposed previous measures in November 2017 (Council on Foreign Relations, 2022).

3.3.5 Crimea

Crimea has been subject to comprehensive US sanctions since 2014 due to Russian annexation in Crimea and referendum results that accepted Russian sovereignty in Crimea. This international incident created different aspects in US sanctions governance. Crimea was not only region/country which impacted from U.S sanctions;

Russia was also impacted but the scope of two sanctions were different. Crimea was designated fully prohibited region for U.S persons (and non-US persons in some circumstances as well) whereas Russia was included to sectoral based sanction list. Sanctions on Russia mostly targeted energy industry and financial sector of Russia but there is no comprehensive prohibition for US persons and non-US persons who involve in business with Russia. Financial industry was targeted by prohibiting selling/buying some financial instruments which are being issued by Russian state and energy industry was targeted by prohibiting loan restrictions and access to US financial markets (within limits) as well as prohibition of high end technology export to Russia (OFAC, 2015). Crimea related designations are classified under “SDN” list whereas sanctions for Russia are classified in another list which is called as SSI (Sectoral Sanctions Identifications”) Having looked at different cases of sanctions it becomes apparent that the U.S. Sanctions are designed on individual basis depending on the circumstances and on a detailed study of targeted country. The U.S. Sanctions policy tool is designed on the basis of individual country characteristics and draws heavily on dependency of its individuals and sectors on the U.S. Economy, hoping to produce severe “punishment” that would ensure of submission to the imposed rules. A detailed survey of the outcomes reveals that this is not always an effective foreign policy instrument as target countries diverge away from the U.S led international order to discover for themselves alternative avenues to conduct their international affairs and economic relations. This in turn provide us with the basis for starting a debate whether U.S has been the dominant hegemonic country after the Cold War as its main foreign affairs impetus has been put into test various times to produce futile outcomes. Now we can turn to focus on the theoretical implications of failed sanctions.

3.4 Argument of Effectiveness of the Economic Sanctions and Foreign Policy Instruments

First and foremost, the term of “effectiveness” is crucial for the literature of economic sanctions. The literature and research question of thesis should question “effect on what” or “impact on what”. Since we define economic sanctions simply as “necessary foreign policy instrument which aims to change the behavior of adversary by

imposing sanctions”, the ultimate aim is to observe whether sanctioned state may change its behavior which is the reason of the sanctions. Therefore, economic deterioration can be subject of the impact of economic sanctions but ultimately, we should also rely on the facts regarding behavior change of sanctioned state.

In this regard, one of the most beneficial studies belong to Robert Pape regarding effectiveness and elements of behavior change. As discussed previously, in his significant study “Why Economic Sanctions Do Not Work?”, Pape (1997) evaluates the statistics retrieved from the table which was provided in Hufbauer et al. (1990) study “Economic Sanctions Reconsidered: History and Current Policy”. Hufbauer et al. (1990) did not simply focus on economic impact of the sanctions, they mostly focused on the outcomes of these sanctions by observing changes under the name of “policy goal”.

In this regard, effectiveness studies should include analysis “behavior change analysis” of sanctioned state. If sanctioned state does not renounce its initial action, it doesn’t necessarily mean that the sanctions are not fully effective. Because, sanctions may still harm economy of sanctioned state and it may force to revise policies and ease the process. Hence, Hufbauer et al. (1990) grouped these “achievements” or “progress” under 5 different policy goals.

3.4.1 Reverse Dependency Theory in Economic Sanctions

In this study we choose to avoid to use a set of literature that is derived from what is known as the dependency school. The relevance of this literature to the topic we undertake can be crystalized within the world systems theory developed by Wallerstein (1974). In fact, this theory can be considered as a macro sociological approach that aims to rationalize the elements of the capitalist world economy and the social system.

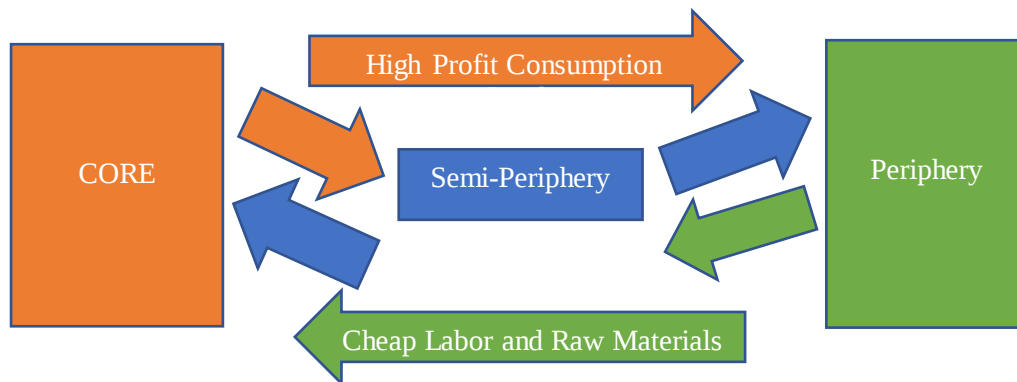
This theory includes a dilemma in itself since cause and consequences are closely related to each other. This theory was offering detailed development process of capitalist world economy and explains why poor countries remain poor and how powerful countries become more powerful. Wallerstein (1974) argues that powerful countries maintain their powers by exploiting natural sources of poor countries.

Therefore, poor countries remain poor consequently. How did this difference start in this relationship? At this point, dependency reveals as an important instrument (Wallerstein, 1974). Since poor countries are dependent on economic and political support of powerful countries, never-ending cycle problems will continue to exist in relationship between poor and powerful countries. Therefore, Wallerstein (1974) proposed a model that explains “who is who” and what are the roles of the countries, based on their groupings.

This scheme is called as core-periphery structure as it can be seen below:

Figure 1.

Wallerstein's World System Theory Model



Note. Created based on Wallerstein's World-System Theory, 1974

However, dependency theory may function inversely in our case. “Trade profile of the country” is an important indicator for impact assessment in economic sanctions. This determinant is an important factor in identifying the capabilities of sanctioned states in terms of resisting against the sanctions.

As it will be discussed in this thesis, Russia is one of the largest oil producers in international market and Russian energy companies play important role in energy market. Therefore, this thesis will also include how much third parties (consumers) need Russian oil& gas and how much they are eager to find alternative ways to evade sanctions. All of these efforts will reveal the efficiency of economic sanctions as such dependency school approach falls outside of our scope and hence, we avoid using it.

4. CROSS COUNTRY ANALYSIS OF U.S. SANCTIONS IN TERMS OF ITS EFFECTIVENESS IN ENERGY MARKETS: IRAN AND VENEZUELA

This chapter aims to examine two different sanctions cases before reviewing Russia which is the main subject matter of this study. The objective is to show over two different cases that how do the sanctions impinge counterparties depending on the conditions. Before making deep dive into cross country analysis, this chapter will also include effectiveness argument in sanctions literature to make sense of cross-country analysis between Iran and Venezuela.

Iran and Venezuela are good examples for sanctions literature since both are differently impacted from the U.S. sanctions. They have common features such as being oil giant and the resources are administered by the state authority in both countries. They are also good example in terms of establishing new alliance. U.S secondary sanctions do not only harm the economy of both countries; it is also forcing them into each other's arm. Although Iran is not as instable as Venezuela, they also experience deep recession and they are also in the brink of economic collapse like Venezuela due to U.S. and Western sanctions. Being pressure under U.S. sanctions close both countries to each other to show resilience against the sanctions.

Iran has been shaping its policy against U.S. and Western sanctions by considering the fact of dependency since in the mid-2000s. Iranian policymakers emphasized that the country would embrace "resistance economy" which would lead to reduce dependency on imports and Western investments. In this regard, it is -once again- worthwhile to assert to what extent the factor of "dependency" is vital in terms of effectiveness in sanctions literature. As of March 2020, Iran derived its revenue of 41.3 billion US Dollars of export revenue from non-oil goods (Batmanghelidj & Rodriguez, 2020). On the other hand, sanctions pressure led to devaluation of Iranian Rial which made Iranian exports more competitive. This development made Iran significant and profitable exporter for others. According to statistics, retrieved from the web-site of OEC World, top 5 importers of Iran are China, India, South Korea, Turkey and United Arab Emirates as of 2019. Crude Petroleum is one of the most

significant export products of Iran which worth around 12.3 billion US Dollars (OEC, n.d).

Apparently, this “calamity” brings out new alliance between Iran and Venezuela to stand against U.S. sanctions. No doubt, both countries see this as an opportunity for their economic relationships. In this regard, a new supermarket in Caracas which sell Iranian export products, is a good example for this opportunistic approach (Batmanghelidj & Rodriguez, 2020). Batmanghelidj and Rodriguez (2020) argued that Iran provides assistance for Venezuela to stand against U.S sanctions by selling their export products in stores of Caracas.

United States has been imposing sanctions on Venezuelan individuals and entities for nearly 15 years. These sanctions may vary depending on the priorities and strategy of the United States. First sanctions imposed on Venezuela started in 2014 during Barack Obama’s period upon alleged existence of a vacuum of the governmental rule. Obama administration preferred to impose targeted sanctions which designate only certain individuals for human right abuses, corruption and anti-democratic actions (Seelke, 2022). In this regard, these sanctions could be interpreted as the “targeted” but not “comprehensive” sanctions which target the whole nation. Recent sanctions imposed by Trump administration were towards President Maduro and it was aiming to remind Venezuelans that how sanctions would be painful if Venezuela would not get rid of Nicolas Maduro and replace with new one –Juan Guaido – who was recognized as an interim president of Venezuela.

U.S. sanctions on Iran and Venezuela have different characteristics in contemporary sanctions literature. Iran has been heavily subject to U.S. sanctions which are ever increasing since 1979 and it is called as comprehensive sanctions which target whole country with its people, institutions, firms and all other organizations. On the other hand, Venezuela is subject to targeted sanctions of the U.S. which only designate certain institutions and individuals. Thus, this part will include analysis how do they differentiate from each other in terms of showing reaction against to U.S. sanctions and how/how much they were affected by the U.S. sanctions. Before making cross country analysis, a sub-title which would study on conditions of effective sanctions would flash the cross-country analysis.

4.1 Determinants of the Effectiveness of Sanctions

Sanctions literature has ample studies which made research on determinants of sanctions effectiveness. Scholars had different approaches and methods to identify determinants in terms of sanctions effectiveness. These determinants may vary depending on the conditions of imposed sanctions and nature of the case itself. For instance, Bapat et al. (2013) analyzed a number of factors that may contribute to sanctions success and also revealed some deficiencies which lead to lack of consistency in other studies in sanctions literature. Bapat et al. (2013) start with a question that why there is a lack of consistency: they suggested that recent theories suggest that threats are an important part of sanctions episodes but there is no robust correlation between threats and imposed sanctions.

Second answer is about the methodology that Bapat et al. (2013) developed: they employed new methodology that enable them to check systemically robustness of the empirical results under various model specifications (Bapat et al., 2013). In this article, Bapat et al. (2013) revealed two outcomes in existing empirical literature in order to test robustness of the relationship between sanctions success and number of variables which have important role for this success (Bapat et al., 2013).

Firstly, Bapat et al. (2013) using a dataset which is called “Threat and Imposition of Economic Sanctions”. They also include threat cases in their analyses alongside case of imposed sanctions. They argue that sanctions effectiveness can be properly measured by taking into consideration threat factor, not only imposed sanctions. They also advise that this is a process and effects may vary based on the factors in different stages of sanctions episodes. Bapat et al. (2013) also take into account the factor of “threat” in their analyses. For instance, they also refer to Drezner (2003), Eaton & Engers (1992), Krustev (2010), Lacy & Niou (2004), Morgan & Miers (1999), Smith’s (1996) studies, written in different years. These scholars also emphasized that sanctions can be also effective by showing “threat” hand. For these cases, it could be argued that sanctions would intimidate target and this would lead to change target’s behavior. Therefore, target would change their policies before sanctions enter into force.

Main concern of sanctions effectiveness study is to figure out which variables increase the chance of sender (coercer) state to achieve its goal. The goal can be

accepted as altering behavior/policy of target state. Another important question is how we define success in sanctions efficacy. Bapat et al. (2013) define success as “if the target partially or completely acquiesced, or the case ended with negotiated settlement”. Bapat et al. (2013) suggest independent variables and put them into a chart. They use 18 independent variables and try to calculate how these independent variables are positively associated with sanctions success. These independent variables are ally, capability ratio, carrots, democratic sender, democratic target, export restrictions, financial sanctions, high issue saliency, international organization involvement, multiple issues, multiple senders, rivalry, sender costs, smart sanctions, target costs, target instability, target trade dependence and United States sender. Based on these independent variables, distribution of coefficients and distribution of absolute values of t-statistics.

It should be noted that Bapat et al. (2013) studied 842 cases in total. (Including the cases which threat was used). Since this chapter will include only 2 cases (Iran and Venezuela), same method and variables will not be used since some of them would be also irrelevant with the cases. Reference to Bapat et al. (2013) study is beneficial to show an appropriate method in terms of associating independent variables with sanctions success.

Pekşen (2019) discusses four major short-coming of the literature in his article “When Do Imposed Economic Sanctions Work?”. First one is international cooperation which is mostly including the debate of sanctions validity for others when international cooperation is in place. Pekşen (2019) argues that multilateral sanctions supported by international institutions are more effective than the ones which are applied unilaterally. This view is also supported (and also referenced by Pekşen) by – Martin (1992), Miers & Morgan (2002), Drezner (2000). Pekşen (2019) also argues that multilateral sanctions led by international institutions might also be less vulnerable. Second point discussed by Pekşen (2019) is allies and economic ties. In this point, Pekşen (2019) discusses how the allies of sanctioning country is eager to comply with sanctions of sender. Ally of the sanctioning country is more inclined to apply sanctions in order to protect strong political relationship with the sanctioning country.

4.2 Survival Strategies against Economic Sanctions by Iran and Venezuela

Scholars in the literature also emphasized that dependence is significant factor to survive from the sanctions. In this regard, sanctioned countries may stand against the measures by developing new trade and investment relationship with other countries (Bryan, 2015). On the other hand, some sanctioned states may also receive assistance from their allies that would help them against the burden of the sanctions. Thus, relationship between Iran and Venezuela can be shown as a good example. Even, European countries which are dependent on export product of the sanctioned states (apparently U.S. sanctions on Iran are good example) For instance, Iran sells natural gas across the European continent and they derive significant revenue from this trade.

Another point discussed by Pekşen (2019) is use of black market and illicit channels in terms of survival of sanctioned state for selling their products. Pekşen (2019) suggests that the relationship of sanctioned states with non-sanctioning countries also impacts the effectiveness of imposed sanctions. Pekşen & Peterson (2016) also argue that trade dependence of target on sanctioning country is important in terms of efficiency in imposed sanctions. Pekşen & Peterson (2016) advise that sanctions can be successful to the extent that the ability of sanctioned country to mitigate sanctions cost via interactions with third parties (countries/entities).

In the same article, Pekşen & Peterson (2016) also emphasize the importance of trade relationship between sanctioning and sanctioned country. They argue that the leverage of sanctioning state may depend on the trade size with sanctioned state. For instance, if sanctioning country has smaller portion trade volume on sanctioned country, it is likely to perceive less leverage from these sanctions whereas large proportion would not guarantee more leverage for sanctioning country. Pekşen & Peterson (2016) advocates that sanctioning leverage may depend on “what trade patterns would look like after sender-target economic ties are interrupted”.

In this chapter, U.S. sanctions on Iran and Venezuela which are non-EU and non-US ally, will be compared in terms of sanctions impact analysis. On the other hand, the notion of “dependency” seems more valid argument when taking into account target’s trade relationship with non-ally (organizational at least – for instance E.U vs U.S.) countries. Thus, giving number about Iran – EU trade size would be more accurate approach for the sake of dependency argument. As it is well known, Iran continued to

make business with other countries which are not member of EU and/or reluctant to recognize U.S. sanctions.

EU plays also important role to determine to what extent Iran is impacted by the sanctions which are not ruled by United States. U.S. is not the only sanctioning party for Iran, EU also imposes some sanctions and restrictions on Iran such as arms export, asset freeze and prohibition to make funds available and restrictions on goods. However, these sanctions differ from U.S. sanctions on Iran at some points since EU can show flexibility in terms of content of the goods whereas U.S. applies comprehensive sanctions on Iran. EU has lifted comprehensive economic and financial sanctions after International Agency for Atomic Energy confirmed that Iran has fulfilled all obligations arising from JCPOA (European Council, n.d.). According to the statistics populated for 2020, The EU is Iran's second largest trade partner which representing 12.3% of the country's total trade in goods with the world in 2020 (European Commission, n.d. (b)).

On the other hand, web-page of European Union also gives significant information regarding trade size of EU with Iran: "Total trade in goods between the EU and Iran in 2020 amounted to €4.5 billion. In 2020, The EU's imports were worth €0.7 billion and were dominated by agriculture and raw materials (€0.4 billion, 57.1%), followed by chemicals (€0.1 billion, 14.2%) The EU's exports amounted to €3.8 billion and were led by machinery and transport equipment (€1.3 billion, 34.2%), chemicals (€1.0 billion, 26.3%) and agriculture and raw materials (€0.7 billion, 18.4%) (European Commission, n.d. (b))." These number also that how EU is eager to trade with Iran and also show to what extent EU is dependent on Iran's product. It should be noted that dependency is not only affiliated with inevitable product but also good price/performance ratio which is provided by the exporter.

EU imposes similar sanctions against Venezuela. Venezuela also suffering from the restrictions on arms export, asset freeze and prohibition to make funds available, travel ban for designated individuals and telecommunication equipment. On the other hand, U.S. sanctions on Venezuela also differs from the sanctions that they imposed on Iran. As it is known, U.S. imposes sanctions on certain Venezuelan entities and individuals whereas sanctions imposed for Iran are comprehensive which is more robust compared to Venezuela.

However, these statements are relatively generic and do not represent deep dive analysis at this stage. Therefore, next sub-part will include comparative analysis of U.S. sanctions which have been imposed on energy markets of Iran and Venezuela. The reason why comparative analysis of Iran and Venezuela on their energy markets is done is: U.S. sanctions which are imposed for Venezuela are largely towards their energy industry, particularly targeting *Petróleos de Venezuela, S.A* which is state owned oil and natural gas company. Therefore, the data to be collected for sanctions imposed on Venezuela would be the output of the sanctions against its energy sector.

4.3 Cross Country Analysis of U.S Sanctions on Energy Markets of Iran and Venezuela

This part will include an analysis which would adopt descriptive statistic and in-depth country analysis. As it was previously advised, this part will focus on U.S. Sanctions on energy markets of Iran and Venezuela since both countries generate most of their revenue from their energy markets, particularly from oil. Therefore, to focus on common business field would provide more reliable result. This part will particularly focus on sanctions related to impact on oil and natural gas of both countries.

Secondly, U.S imposes sanctions on Venezuela by only targeting state owned oil company of Venezuelan government and affiliated individuals and other entities which means the sanctions on Venezuela are entirely targeting energy industry of the country. On the other hand, even though U.S imposes comprehensive sanctions on Iran, mostly energy industry of Iran has been suffering from U.S. sanctions.

This part will dwell on following topics as comparative: 1. Scope of sanctions which are related to energy markets. 2. Energy production and export capacity of both countries. 3. Impact of U.S. Sanctions on Oil and Gas Export and Production. Research period will be 2012-2019.

U.S sanctions on Iran date back to beginning of 1980s just after the overthrow of Shah Reza Pahlavi and its dynasty. U.S has been imposing comprehensive sanctions Iran for a long time that resulted economic cost on Iranian economy, particularly in energy industry which is the largest revenue item for Iran. Within this time period, U.S hardened imposed sanctions on Iran by issuing new executive orders which are strictly prohibiting doing business with Iran. On the other hand, U.S impose sanctions

the banks that transact with Iran or facilitate transactions (including oil transactions) and also sanctioning other firms which buy Iranian oil.

Particularly Trump administration hardened sanctions by exiting from Joint Comprehensive Plan of Action which took place between Iran and P5+1 countries. This plan is also known as Iran nuclear deal which aimed to reduce nuclear capacity of Iran, particularly diminish uranium enrichment capacity of Iran. Even though U.S lifted sanctions for non-US persons as of January 2016, President withdrew U.S from JCPOA in 2018 and reimposed sanctions on Iran. Based on new sanctions regime—applied in two waves, respectively in August and November 2018 – U.S reimposed following sanctions for Iran:

- “ • *Financial sanctions imposed on foreign financial institutions that transact with Iran’s Central Bank, or any sanctioned Iranian bank*”.
- *Financial sanctions imposed on foreign financial institutions that conduct or facilitate purchase transactions for Iranian petroleum, petroleum products, and petrochemical products.*
- *Sanctions on entities that purchase petroleum, petroleum products, or petrochemical products from Iran.*
- *Significant reduction exceptions (SREs) can be provided to financial institutions and entities domiciled in countries that significantly reduce crude oil purchases from Iran.*
- *Wind-down periods provided to allow for market adjustments.*
- *President is required to make a determination every 180 days that petroleum supply is sufficient to allow for significant reductions. Determination is based on a U.S. Energy Information Administration (EIA) petroleum availability and price report that EIA is required to publish every 60 days.*
- *President is required to encourage petroleum-producing countries to increase supply and minimize oil availability and price impacts.”* (Brown, 2020)

As it can be understood from above, sanctions came back for Iran in 2018 in two waves. First reimposition was made in August 2018 which involved U.S persons. (Legal type: who/which represents individuals/entities. For individuals, it represents U.S citizen whereas entities represent legal vehicle which are incorporated in the U.S)

Second wave involved non-US individuals which are not even U.S citizens or not incorporated in the U.S. It was actually referring to anyone who/which have not U.S connection. Sanctions, which forced non-US persons to comply with U.S sanctions imposed for Iran, are called as “*secondary sanctions*”.

From this aspect, secondary sanctions are considered as a tool which U.S forced allies and other countries to join their sanctions regime to oppress on Iran. Therefore, U.S also indirectly threatened to sanction other countries when they do not comply with U.S sanctions on Iran. In this regard, it can be argued that Iran does not try to survive from U.S sanctions, also making an effort to be supplier of other countries, particularly in oil market. Although it is acceptable that U.S does not allow using of U.S currency for the transactions which have Iranian connection, they took a step further and secondary sanctions extended non-US persons to prohibit companies/countries doing business with Iran in any currency.

It should be noted that secondary sanctions against Iranian entities causes more pain than any other sanctions programs, making sanctions against Iran more challenging when compared with the sanctions to other countries.

Venezuela has the largest oil reserves in the world which has been acting as main producer for international oil market. Venezuela has 304 billion barrels of proven reserve, based on statistic provided in “BP Statistical Review of World Energy 2020” (BP, 2020). Sanctions against Venezuela’s Petróleos de Venezuela, S.A (PdVSA) was launched in 2017 and it directly targeted oil production and trade of Venezuela in large. U.S was one of the biggest oil buyers for Venezuela however it was restricted after the sanctions and Venezuela started seeking new buyers for revenue sustainability. Although U.S did not prohibit non-US persons from engaging in transactions with the Government of Venezuela and/or PdVSA (This measure shows that Venezuela is not subject to secondary sanctions except using U.S currency in their international transactions).

U.S Treasury developed an approach which can be interpreted as ambiguous in terms of establishing business sense with PdVSA and did not provide guidance whether foreign corporations are free to provide material support to PdVSA. Therefore, PdVSA had a difficulty in production process as they lack necessary material to sell oil to the international energy market. Thus, this framework created an obstacle for

PdVSA to find new buyers and suppliers. However, another country which is suffering from U.S sanctions, Russia facilitated Venezuelan crude oil trade with refiners in China and they also provided petroleum products for Venezuela, which were previously sourced from U.S suppliers (Brown, 2020).

First sanctions imposed in 2017 were including restricting PdVSA's access to U.S debt finance and also cash distributions from Citgo refining which is subsidiary of PdVSA but located in the U.S. Even this development showed to what extent coercers go beyond and forced the target state to fail in borrowing cash from its own subsidiary.

According to the report of Congressional Research Service, U.S imposed following measures and sanctions for Venezuela and particularly for PdVSA:

- “• U.S. companies prohibited from engaging in transactions with Petroleos de Venezuela S.A. (PdVSA). U.S. refiners prohibited from purchasing Venezuelan crude oil. PdVSA prohibited from purchasing petroleum products—such as diluents that are blended with Venezuela's crude oil—from U.S. suppliers.*
- General licenses (GLs)—including GLs for Chevron and several oilfield service companies operating in Venezuela—and winddown periods to allow U.S. refiners time to adjust to sanctions related trade constraints.*
- No General License (“GL”) or wind-down period provided for PdVSA diluent purchases from the United States.*
- Potential for secondary sanctions on non-U.S. persons/entities that transact with PdVSA.”* (Brown, 2020)

Above measures also include prohibition for U.S persons to provide oilfield service operations and oil production in Venezuela. Not only PdVSA as a corporation, also persons working in Venezuela's oil sector would be subject to sanctions. It should be also noted that these measures do not aim only restrictions on US persons also targeting freeze of assets of PdVSA in U.S and seizure/block of any potential assets that may go through U.S banks. On the other hand, 5 oil services companies (Chevron, Halliburton, Schlumberger, Baker Hughes and Weatherford International) have been granted waiver (“GL” in sanctions jargon) to continue operating in Venezuela (Brown, 2020).

U.S Treasury also issued a guidance which prohibits non-US persons from engaging in transactions with PdVSA in USD currency since it would have U.S connection (executing USD transaction requires settlement through the bank located in the U.S jurisdiction). This measure would create problem for PdVSA since most of oil transactions are settled in USD and entities which PdVS would like to establish business relationship, are transacting in USD. As it can be understood from this part, U.S sanctions imposed on Venezuela is largely targeting PdVSA which is the largest state-owned corporation of Venezuela. Since energy market is dominantly run by the Venezuelan government, there is no alternative – at least equal to PdVSA- corporate which can trade oil in international energy market. This feature of Venezuela makes sanctions harder for the country since there is no room for maneuver to bypass U.S sanctions by using other corporations in the market.

4.3.1 Energy Production and Export Capacity of Iran and Venezuela

A. Iran

Iran is among top oil export in international energy market. Based on data provided by BP, Iran produces 3,5 million barrels oil per day in 2019 whereas number of produced oil per day in 2018 is 4.8 million barrels. When we look at the daily production capacity day between 2012 and 2019, the numbers show the chronology of imposed sanctions. In 2012 when the sanctions were effective, daily oil production capacity of Iran was 3,8 million Barrel per day whereas daily oil production capacity was 3.6 million and 3,7 and 3.8 million barrels in 2013 and 2014 and 2015, respectively. Another important point is that when Iran fulfilled its commitment to JCPOA in 2016, daily production capacity had been increased to 4,5 million barrels. Therefore, Iran made significant progress in 2016, 2017 and 2018 for oil production on daily basis as can be seen in Table 3.

Table 3 - Oil: Iran's oil Production in thousands of barrels per day

Table 3

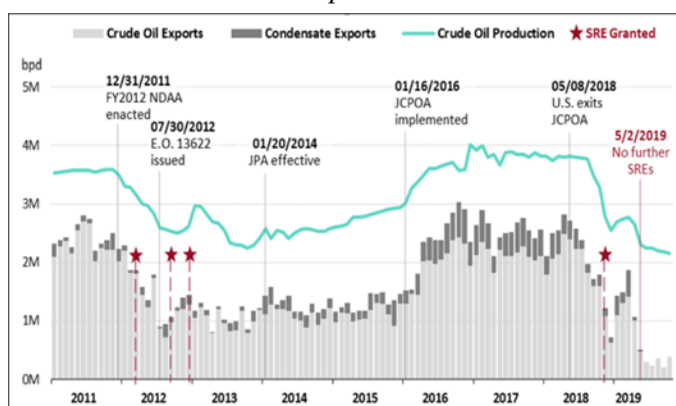
*Oil: Iran's oil Production in thousands of barrels per day**

2012	2013	2014	2015	2016	2017	2018	2019
3810	3609	3714	3853	4578	5007	4801	3535

Note. Retrieved from *Statistical Review of World Energy*, BP, 2020

Iran had highest oil production in 2016, 2017 and 2018 (not whole year) on daily basis until Trump administration withdrew the U.S from JCPOA on 8th of May, 2018. Average oil production of Iran on daily basis between 2016-2018 is 4,7 million barrels which is more than the average of the period between 2012-2015: 3,7 million Barrels (see Fig. 2).

Figure 2.
Iran Oil Production and Exports



Note. Reprinted from Congressional Research Service, Brown, 2020.

The reason why Table 3 is different from figure 2 is the scope of data. Table 3 includes crude oil, shale oil, oil sands, condensates and NGLs (Natural Gas Liquids which is different from Liquefied Natural Gas) whereas Figure 2 only includes crude oil. Figure 2 shows that imposed sanctions on Iran had an impact on crude oil export and production declined by roughly 1.2 million barrel per day between December 2011 and July 2012. December 2011 is the date of enactment of National Defense Authorization Act in Fiscal Year 2012.

Based on data provided by The Organization of the Petroleum Exporting (“OPEC”), Iran’s oil export between 2012 and 2019 also reflects how the numbers are fluctuating in accordance with Iran’s negotiation with the West and the United States.

Highest oil export number of Iran happened in 2017 when the sanctions were lifted by the United States for non-US persons as part of JCPOA resulted in 2016. Iran’s oil export is 2.1 million Barrels per day in 2017 whereas oil export of Iran in 2019 is only 651.000 barrels per day. As it is previously stated, U.S withdrew from JCPOA which led to reimposition of U.S sanctions on 8th of May in 2018. Average oil export of Iran between 2012 and 2019 is 1,5 million barrels per day. Second highest export number belongs to 2016 when the JCPOA redounded for Iran. In 2016, Iran exported 1,9 million barrels oil per day which is also significant in terms of export sustainability. This data can be seen in detail below in Table 4.

Table 4 - Iran's oil export versus Middle East Oil Export

Table 4.

Iran's oil export versus Middle East Oil Export

World crude oil exports by country (1.000 b/d)	2012	2013	2014	2015	2016	2017	2018	2019
Middle East	18.076,8	17.497,2	16.792,8	17.037,3	19.321,1	18.756,8	18.916,8	17.630,1
IR Iran	2.102,0	1.215,4	1.109,2	1.081,1	1.921,7	2.215,0	1.849,6	651,1

Note. Modified from OPEC (n.d.) official web-page.

Yearly average natural gas production of Iran between 2012 and 2019 is 226 billion Cubic Meters and it is seen that production amount remained almost same in every year. There are approximately 55 billion Cubic Meters difference between minimum and maximum number of production (Year 2013 and 2019). (See Table 5).

Table 5 - Iran Natural Gas Production versus Middle East Natural Gas

Table 5.

Iran natural gas production versus Middle East Natural Gas production

World marketed production of natural gas by country (million standart cu m)	2012	2013	2014	2015	2016	2017	2018	2019
Middle East	594.701	620.731	633.893	659.242	670.505	678.451	690.457	701.125
IR Iran	202.431	199.293	212.796	226.673	226.905	238.003	248.524	253.773

Note. Modified from OPEC (n.d.) official web-page.

Based on OPEC's data, Iran's average natural gas export in research period is 9.7 billion cubic meters on yearly basis (see Table 6).

Table 6 - Iran Natural Gas Export versus Middle East Natural Gas Export

Table 6.

Iran natural gas export versus Middle East Natural Gas export

World natural gas exports by country (million standart cu m)	2012	2013	2014	2015	2016	2017	2018	2019
Middle East	155,93	165,361	163,578	163,508	162,641	164,882	176,36	169,794
IR Iran	9,152	9,307	8,360	8,541	8,567	12,927	12,327	8,800

Note. taken and modified from OPEC (n.d.) official web-page.

B. Venezuela

Venezuela is also among top oil exporters in international energy market. According to data provided by British Petroleum, average oil production of Venezuela per day seems 2.4 million barrels. However, number of productions in barrel per day decreased to 918.000 in 2019 when the United States imposed sanctions on PdVSA which is the main producer of Venezuelan oil. Another data which is worthwhile to mention is about growth rate of Venezuela oil production over the years. Growth rate per annum is -7,5% between 2008-2018. On the other hand, growth rate of Venezuelan oil production is -37.7% in 2019 (see Table 7).

Table 7 - Venezuela's Oil Production in thousands of barrels per day

Table 7.

Venezuela's Oil production in thousands of barrels per day

								Growth rate per annum	
2012	2013	2014	2015	2016	2017	2018	2019	2019	2008-18
2704	2680	2692	2631	2347	2096	1475	918	-37.70%	-7.50%

Note. Retrieved from *Statistical Review of World Energy*, BP, 2020

Venezuela is not active country in importing and exporting natural gas. Natural gas production is quite low compared to average of the world. There is no high demand

for Venezuelan gas in the market and Venezuelan government does not act as appetent as they do in oil. Average natural gas production of Venezuela between 2012 and 2019 is 24 billion Cubic Meter (OPEC, n.d.). OPEC database does not even list export rate of Venezuelan gas.

4.3.2 Impact of U.S Sanctions on Oil and Gas Export and Production

Oil export numbers of Iran between 2012 and 2019 explicitly show that Iran had been impacted from U.S sanctions when the sanctions were in full effect, particularly between 2012-2015 and 2019. In order to show to what extent Iran had been impacted, an oil export data of another country is important. Their oil production capacity is even lower than Iran.

For instance, average crude oil production of Iran between 2012 and 2019 is roughly 3.4 million barrels per day whereas average crude oil production of Kuwait in same period, is 2,8 million barrel per day. Although Kuwait has lower production than Iran in same period, crude oil export of Kuwait is higher than Iran: Kuwait exported 2 million barrels crude oil per day whereas Iran exported roughly 1.507 million barrels crude oil per day (OPEC, n.d.).

Following imposition of sanctions for Venezuela started in 2017, Venezuela's monthly crude oil production is decreased by roughly %50. Venezuela had produced 2 million Barrels crude oil per day in 2017 and it was decreased to 1,5 Million Barrels in 2018 and it was dramatically decreased to 1 million Barrels per day in 2019 when the sanctions were tightened by U.S Treasury. Venezuela's oil export was also dramatically decreased in same period: particularly starting from 2016, numbers were declined by roughly %12-20 each year.

How these numbers were affected by only sanctions and not subject to another variable will be verified in this study. Sanctions is used as the only independent variable as the numbers between 2012 and 2019 are fluctuating for only Venezuela and Iran. On the other hand, export and production numbers of other countries in different continents are almost same for each year. For instance, crude oil export of Mexico between 2012 and 2019 did not go up to 1.3 million barrels per day and never went down below 1.2 million (see Table 8).

Table 8 - Mexico's Crude Oil Export**Table 8.***Mexico's Crude oil export*

World crude oil exports by country (1,000 b/d)	2012	2013	2014	2015	2016	2017	2018	2019
Mexico	1.333,1	1,270,7	1.219,8	1.247,1	1.274,4	1.264,6	1.285,5	1.200,4

Note. Modified from OPEC (n.d.) official web-page.

For crude oil production, Kazakhstan had always made same progress between 2012 and 2019 (see Table 9). Average crude oil production of Kazakhstan per day is 1,4 million barrels. Minimum number is 1,3 million whereas maximum is 1,55 Million Barrels. In other years, numbers are floating around 1.2 million.

Table 9 - Kazakhstan's Crude Oil Production**Table 9.***Kazakhstan's Crude Oil Production*

World crude oil production by country (1,000 b/d)	2012	2013	2014	2015	2016	2017	2018	2019
Kazakhstan	1,307	1,373	1,345	1,322	1,295	1,467	1,547	1,550

Note. Modified from OPEC (n.d.) official web-page.

For natural gas, it is seen that Iran's natural gas production is not affected by the sanctions since the numbers are roaming around 200 billion Cubic Meters between 2012 and 2019. As it is previously discussed, Venezuela is not major player in natural gas production and export but it can be also seen that their natural gas production numbers are roaming in same level between research period. Below data can verify this statement (see Table 10).

Table 10 - Iran versus Venezuela natural gas production**Table 10.***Iran versus Venezuela natural gas production*

World marketed production of natural gas by country (million standart cu m)	2012	2013	2014	2015	2016	2017	2018	2019
Venezuela	22.726	21.82	21.878	26.004	27.718	29.793	24.785	20.559
IR Iran	202.431	199.293	212.796	226.673	226.905	238.003	248.524	253.773

Note. Modified from OPEC (n.d.) official web-page.

Venezuela is not even listed in oil gas export list by OPEC. Based on “World Natural Gas Export by Country” which was issued by OPEC, Iran’s natural gas export numbers are roaming in similar levels between 2012 – 2019 but it is also seen that there is a positive jump in 2017 and 2018 when U.S. sanctions were lifted for non-US persons as part of JCPOA commitments (see Table 11).

Table 11 - Natural Gas export of Iran versus Middle East

Table 11.

Natural Gas export of Iran versus Middle East

World natural gas exports by country (million standart cu m)	2012	2013	2014	2015	2016	2017	2018	2019
Middle East	155.93	165.361	163.578	163.508	162.641	164.882	176.36	169.794
IR Iran	9.152	9.307	8.36	8.541	8.567	12.927	12.327	8.8

Note. Modified from OPEC (n.d.) official web-page.

This part discussed in summary to what extent the energy industry of Iran and Venezuela, was impacted by U.S sanctions. This comparative part focused on the period between 2012 and 2019. Reason that I choose this period is that the impact of U.S sanctions can be observed better in this period. Because, this period includes both aggravation and relief years for particularly Iran. It could be argued that tangible impacts and sanctions history for Venezuela started in 2017 but I did not want to allocate different time period for Venezuela to avoid incoherence in the study. Therefore, this period (2012 and 2019) remained same for Venezuela as well.

As stated in the previous chapter, only independent variable is “imposed sanctions” in case study of this chapter. Dependent variables are “oil exports by Iran and Venezuela” and “crude oil production of Iran and Venezuela”. It could be argued that the numbers are changing depending on whether the sanctions are imposed. As it was proved through numbers of other countries in this chapter (the example of Kazakhstan and Mexico), there is no other variable which affected the numbers. In this regard, we can ensure that the changes in numbers for Venezuela and Iran are only dependent to sanctions. Since Venezuela has no significant record for natural gas (no listed in OPEC’s natural gas export report), this part will not include Venezuela’s natural gas statistics.

The growth rate of Iran and Venezuela in export and production of crude oil between 2012 and 2019 is calculated. It should be noted that below calculation reflects growth rate for the period between 2012 and 2019 but also including some specific periods. For instance, period between 2015 and 2017 has been calculated since these years represent a period of relief of Iran due to commitments of the U.S in JCPOA. On the other hand, another calculation has been made for the period between 2017 and 2019 since the sanctions were reimposed. Although these differences seem rationale for Iran since relief and reimposition applied for only Iran, Venezuela's growth rates have been also calculated to show how Venezuela made progress in its own environment when the numbers of another target country were changing depending on imposition of the sanctions. I firmly believe that this may show how Venezuela differs from Iran when the sanctions were eased and hardened for Iran.

Table 12 - Crude Oil Production of Iran versus Venezuela

Table 12.

Crude Oil Production of Iran versus Venezuela

Production	CRUDE OIL PRODUCTION , Million Barrell (2012-2019)								Growth Rate (%)	Growth Rate (%)	Growth Rate (%)
Countries	2012	2013	2014	2015	2016	2017	2018	2019	2012-2019	2015-2017	2017-2019
Venezuela	2,804	2,789	2,683	2,654	2,373	2,035	1,510	1,013	-64%	-23%	-50%
% Change Year/ Year		-0,5%	-3,8%	-1,1%	-10,6%	-14,2%	-25,8%	-32,9%			
Iran	3,740	3,575	3,117	3,152	3,651	3,867	3,553	2,356	-37%	23%	-39%
% Change Year/ Year		-4,4%	-12,8%	1,1%	15,9%	5,9%	-8,1%	-33,7%			

Note. This table was created by the author based on statistics, presented in OPEC (n.d.) official web-page.

As it can be seen in Table 12 above, crude oil production is in generally minus for Iran and Venezuela. In overall, growth rate of crude oil production for Iran is -37% between 2012 and 2019. For Venezuela, growth rate in crude oil production in same period is -64% which is lower than Iran. Only positive data for Iran in this table belongs to period between 2015 and 2017 when the sanctions were eased. Iran had positive growth rate in this period and they made significant progress by having 23% in crude oil production. However, Venezuela is in minus in this period: -23%. This

shows Venezuela consistently display performance in minus independently of sanctions imposed for Iran. Growth rate between 2017 and 2019 show that Iran was in reimposition period and PdVSA was subject to robust U.S sanctions.

This calculation also includes how the growth rates are changing in running years. For instance, worst growth rate for Venezuela happened between 2015 and 2016. Growth rate was -1.1% in 2015 whereas it was decreased to -10.6% in 2016. On the other hand, Iran made significant progress between 2015 and 2017 and they had positive growth rate in each year (see Table 13).

Table 13 - Crude Oil Export of Iran versus Venezuela

Table 13.

Title Crude Oil Export of Iran versus Venezuela

Export	CRUDE OIL EXPORT, Million Barrell (2012-2019)								Growth Rate	Growth Rate	Growth Rate
Country	2012	2013	2014	2015	2016	2017	2018	2019	(%) 2012- 2019	(%) 2015- 2017	(%) 2017- 2019
Venezuela %	1.724,8	1.528,0	1.964,9	1.974,2	1.835,0	1.596,4	1.273,1	846,6	-51%	-19%	-47%
Change Year/ Year		-11,4%	28,6%	0,5%	-7,1%	-13,0%	-20,2%	-33,5%			
IR Iran %	2.102,0	1.215,4	1.109,2	1.081,1	1.921,7	2.125,0	1.849,6	651,1	-69%	97%	-69%
Change Year/ Year		-42,2%	-8,7%	-2,5%	77,7%	10,6%	-13,0%	-64,8%			

Note. This table was created by the author based on statistics, presented in OPEC (n.d.) official web-page.

Findings for above table are as follows:

- Between 2012-2019 Iran shrunk by-- 69%, in the same period Venezuela shrunk by-- 51%.
- The biggest hit for Iran was between 2018/2019, which resulted with - 64.8 %.
- The biggest hit for Venezuela was in the same period as Iran (2018/2019) - 33.5%
- Iran had a period of relief on 2016 and 2017, Exports recovered by 78% compared to 2015, and this relief continued, though not at the same pace (10.6%), into 2017. Growth rate in this relief period (between 2015 and 2017)

shows significant positive growth as 97%. By starting from 2018 rates started appearing in minus once again since U.S sanctions reimposed.

Briefly, it can be argued that Venezuela has been slightly impacted less than Iran in crude oil export except the period between 2015 and 2017. Because new sanctions were imposed for Venezuela in 2017 when existing sanctions for Iran were lifted. On the other hand, crude oil production rates show that Venezuela has been gravely impacted more than Iran.

This can also show that production process requires new equipment, tools and infrastructure and PdVSA rackingly experienced U.S sanctions in this process. It is understood that sanctions imposed on Venezuela impacted material access which Venezuela would feel need of during crude oil production.

5. ROLE OF ENERGY INDUSTRY IN RUSSIA

This part will report general information and statistics in regard to the energy industry in Russia. Since case study is 2014 U.S Sanctions on Russian energy industry due to Russian annexation of Crimea, this part aims to rationalize on the role of energy industry in Russia throughout the 2000s. Since 2014 U.S Sanctions are still effective, I didn't limit the statistics with only 2014 and before. Hence, this part will contain general information regarding the key figures of Russian Energy industry as well as emphasis on interdependency of Russia and other trade partners such as importer countries.

In this respect, this part will give coverage to the country energy profile of Russia by giving information regarding main energy resources and major energy players in Russia. Accordingly, there will be also reference to the energy production and export capacity of Russia which will make easier to understand potential trade exposure of the country. In order to elaborate on this exposure, there will be also a sub-section that will explain the dependency of third parties for Russian energy and also energy demand of Russia from third parties. As referred previously in other sections as well, natural resources of Russia in this case are limited to only crude oil and natural gas since these resources are the key figures of Russian energy industry in terms of production and supply capacity (IEA, 2022a). Therefore, dwelling on most profitable energy tools of Russia would provide more insight on the impact of these sanctions.

Russia has been always prone to use their national resources as a power and even weapon sometimes. After oil and gas prices started to rise in early 2000s, Putin administration saw this advantage to regain superpower status and strength their cash flow thanks to certain Russian energy companies such as Rosneft for oil and Gazprom for gas which are ultimately controlled by the government (Zaslavskiy, 2015). Russia's energy industry, particularly oil part has been one of the most significant industries just after the collapse of Soviet Union. Because privatization process was effective in energy industry as well like other industries.

In fact, Russians were not only powerful in post-Soviet era in terms of energy production and supply, but also USSR benefited from being one of the major producers and exporters of oil and natural gas before the break-up. In post-Soviet Russia, energy resources continued to be significant tool for both Russian economy and leverage in

foreign policy (Gidadhubli, 2003). Particularly, energy industry and some developments in the sector have been one of the most significant incidents for Russia while transitioning to market economy.

For instance, Yukos can be shown as a perfect example for this transition. Yukos was state owned oil company until the collapse of Soviet Union. Boris Yeltsin who was the first Prime Minister of Russia in post-Soviet period, decided to apply a method which could be considered for “new” for Russians at that time. Such that, very few Russians could understand what Yeltsin tried to do. Yeltsin decided to issue voucher for every Russian citizen and these vouchers were representing a share for many state-owned companies. However Russian citizens were such low-income individuals, they were prone to exchange their vouchers for very small amount of cash in return (Goldman, 2004).

Therefore, a company which was first private commercial bank in Russia, Menatep was in a position to buy the vouchers that were sold by Russian citizens. Menatep was the first private commercial bank that was started by Mikhail Khodorkovsky in 1988. Khodorkovsky was one of the first entrepreneurs in late 1980s thanks to reforms in Gorbachev era. He started to become wealthy by taking advantage of the new 1987 reform under Gorbachev administration that authorized individuals to launch their own private businesses. Khodorkovsky and his friends started their own businesses such as coffeeshops and discotheques.

In a short period of time, they were in a position to open up their own bank which was called “Menatep” (Goldman, 2004). Khodorkovsky and his friends were aware how much vouchers were important and they started to buy these vouchers from Russian citizens, using Menatep as a legal vehicle for the transfer of these shares. After a while, these vouchers enabled them to be influential individuals in these enterprises. Next step was to acquire the shares of the Yukos which were not privatized yet.

Yeltsin administration was having difficulty to collect tax and they needed money. Khodorkovsky’s Menatep offered a loan and the agreement was that when taxes were collected loan would be repaid and collateral would be returned to the state. However, Khodorkovsky understood that the state would not be able to repay. As Khodorkovsky expected, the government couldn’t repay the installments and shares remained in Menatep. Yukos was only one of these oil companies that was privatized in this way. Therefore, Russian energy industry, particularly oil sector became more important after

the collapse of USSR and it has been actively supported by the government to attractive the foreign investment which would enable the industry more competitive in the international market (Gidadhubli, 2003).

5.1 Energy Country Profile of Russia

Energy profile of Russia has certain aspects. First one is economic which makes Russia a vital player in the international market. Russia plays an important role in global oil market and they are the world's third largest oil producer behind the U.S and Saudi Arabia as of 2022 February (IEA, n.d.(a)). According to International Energy Agency, Russia's total oil production was 11.3 million barrel/day, of which 10 mb/d was crude oil, 960K barrel/day condensates and 340 kb/d NGLs (IEA, n.d.(a))." On the other hand, Russia is the world's largest exporter of oil to global markets. Moreover, the role of Russia in gas market is also significant since Europe is heavily dependent on Russian gas. Based on data retrieved from International Energy Agency (IEA, n.d.(b)), "Russian gas supplies increased from 25% of the region's total gas demand in 2009 to 32% in 2021". Other aspect is political which Russia uses its natural resources as a foreign policy tool. Since European Union countries are main importer of Russian gas, Russia takes the opportunity of building up energy corridor like Nord Stream. As of 2021, Russia supplies 40% of gas demand of the EU countries.

5.2 Main Energy Resources of Russia

In this section we are going to focus on main energy resources i.e oil and natural gas. which make Russia one of the largest producer and supplier in the world. In this sense, we are not going to investigate Russia's coal and renewable energy resources. Because, Russia is key figure in international energy market for oil and gas in terms of both supply and production. In this regard, this part will dwell upon supply and production capacity of Russia for oil and gas. Moreover, there will be also reference for infrastructure capabilities such as pipelines which particularly transmit Russian gas to Europe. Oil and gas are two separate products that Russia highly benefits and the way of benefit is different for these two products.

5.2.1 Oil

Oil is an important revenue item for Russian economy whereas gas is more important to achieve political end (Sabonis-Helf, 2015). Russia was the largest oil producer in the world, just before the dissolve of USSR and they were extracting 11 million Barrels of oil a day (Sabonis-Helf, 2015). For the post-Soviet period, Russia produced more oil per day than Saudi Arabia between 2008 and 2012. Another advantage of being oil exporter compared to gas is that oil is easier to transport which makes Russia significant producer and exporter. Based on 2012 stats, Russia exported roughly 7.2 million-barrels/day (Sabonis-Helf, 2015). Since Russia has significant production capacity, it has also impact on the world oil market which also impacts the oil prices in global level.

According to statistics of Oil Market Report of 2022, prepared by International Energy Agency, Russia produces 11.3 million barrel of oil per day in 2022 whereas that was 10.87 in 2021 and 10.61 in 2020 which represent approximately % 8.7 increase in oil production (IEA, 2022b). In this regard, only Russia's oil production per day represents %10 of the world's oil production per day. There is no other country in Russia's region that may even approach Russia's oil production capacity. Kazakhstan is the second country behind Russia as former USSR states in terms of oil production and they only produce 2 million Barrels per day which is approximately 20% of Russia's oil production (IEA, 2022b). Based on BP's report (BP, 2021), Russia's total oil production is 10.6 million barrels in 2020. Regardless region-specific assessment, only U.S and Saudi Arabia are in the front of Russia. Based on statistics received from BP Statistical Review of World Energy 2021 report, oil production of U.S in 2020 is 16.47 million barrel per day whereas Saudi Arabia's oil production is 11.3 million Barrel (BP, 2021).

According to BP Statistical Review of World Energy 2021 report, Russia's total oil reserve is 107.8 billion Barrel and this represents %6.2 of the total shares of world's oil reserve. Venezuela's total oil reserve is 303.8 billion barrel and they have the largest oil reserve in the world (BP, 2021).

5.2.2 Natural Gas

Gas specifically refers to natural gas which is vital energy source of Russia, particularly for its leverage in foreign policy. Unlike the oil, natural gas is not only considered as a revenue item for Russian economy, but also considered as a foreign policy instrument for Russia in every occasion.

Russia's total gas reserve is 1,320 trillion Cubic Feet as of 2020 December and this represents roughly %20 of the total world's gas reserve. Russia has largest gas reserve and followed by Iran and Qatar with %17.1 and 13.1, respectively based on statistics provided by BP annual report (BP, 2021). When we look at proven gas reserve history of Russia between 2007 and 2020, there is no significant change. Lowest proven gas reserve belongs to 2007 as 33.9 trillion cubic meters (see Table 14).

Table 14 - Russia's Proved Natural Gas Reserve between 2007 and 2020

Table 14.

Title: Russia's Proved Natural Gas Reserve

Natural Gas: Proved Reserves (Trillion Cubic Meters)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Growth Rate	Share
Russia	33,9	34	34	34,1	34,5	34,6	34,9	35	35	34,8	37,9	37,6	37,6	37,4	-0,4	19,90%

Note. taken and modified from BP's "Statistical Review of World Energy".

Russia's total gas production is 638.5 billion cubic meters as of December 2020 just after the United States which produced 914.6 billion cubic meters in 2020. Russia's growth rate shows decrease, compared to 2019 which is 679 billion cubic meters. Total share of Russia in world's gas production is 16.6% whereas share of U.S is 23.7%. Russia's gas production fell by 6.2% compared to 2019. Table 15 shows Russia's gas production data between 2007 and 2020 by also including growth rate and current share of the country in world's gas production.

Table 15 - Russia's Natural Gas Production between 2007 - 2020

Table 15.

Title: Russia's Natural Gas Production

Natural Gas: Production (billion cubic meters)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Growth Rate	Share
Russia	601.6	611.5	536.2	598.4	616.8	601.9	614.5	591.2	584.4	589.3	635.6	669.1	679	638.5	-6.2	16.60%

Note. Modified from *Statistical Review of World Energy*, BP, 2021

Growth Rate emerged as -6.2% compared to 2019 and reason behind this decrease can be linked to COVID-19 pandemic which led to decline in natural gas prices since European countries decreased their demand due to lockdown which led to economic downturn in many countries (IEA, 2020). On the other hand, in government level assessment: providing aid for the citizens who couldn't work due to lockdown was another expense item for the governments. Based on report of IEA, Europe is the most impacted market, with a 7% year-on-year decline in 2020 1Q (IEA, 2020). Compared to 2019, Natural gas prices also decreased in 2020. 1 British Thermal Unit (BTU) was 2.51 USD in 2019, it decreased to 1.99 USD (as per US Henry Hub Natural Gas prices) in 2020 due to above referred reasons (BP, 2021). Therefore, it could be argued (and also can be seen through the tables which include price and gas production capacity, specifically for Russia) that Russia was mostly impacted as a major gas exporter country. Since the demand remained limited, prices fell and production did not increase.

5.3 Major Energy Players in Russia

Energy is one of the industries which governments play key role in their ownership and/or controlling capacity of the firm. The same approach is being adopted for Russia and other countries where the energy is considered a significant revenue item. This can be also called as "state capitalism" which enounces the dominance of the governments on specific industries to achieve political end. After all, these companies are operating in an industry whose main source is natural source which is being extracted from country's land. Russia is also a decent example for state capitalism where the government is a key figure, particularly in the energy industry.

When considering the fact that Russia could derive significant revenue from its activities in the energy industry, the government's penetration of various companies is expected. In this regard, there are number of energy companies in Russia which Russian economy benefits from. On the other hand, these energy companies do not only represent economic significance for Russia, but also mean strategic importance for Russian foreign policy. Relationship between the government and energy companies in Russia is also notable: after the dissolution of USSR, Yeltsin pursued certain policies towards the energy industry alongside the other industries. These policies enabled oligarchs to own state-owned companies including energy companies.

5.3.1 Lukoil

Lukoil has been operating in production of crude oil and natural gas since 1991. Lukoil was transformed as joint stock company in 1993. In fact, transformation of Lukoil explains how the government features the energy companies in a broad perspective. Vagit Alekperov was the first chairman of Lukoil and the company emerged as a merger of three oil producer and three oil refiner thanks to the efforts of Alekperov. Alekperov became deputy energy minister of USSR in 1990 just before the break-up and he could find an opportunity to gain insight in energy industry. This insight enabled him to gather three different state-owned oil producer enterprise during the establishment of Lukoil. These companies were Langepas, Uray and Kogalym Oil. Moreover, he also included a processing company and two refineries for this merger (Kurt, 2022). Main motivation of Alekperov was to compete Lukoil with energy companies in the Western world. Therefore, he would have copied the business model of western energy companies while he was running Lukoil. Lukoil's initial purpose was not only economical, but also political: Lukoil preferred to head for countries which were in Russia's traditional interest. For instance, Russia wanted to sustain its dominance on Caspian region and initiate a dialogue in energy with former Soviet Republics via Lukoil (Poussenkova, 2010). Lukoil was important part of this effort and company's activities enabled Russian involvement in Caspian region, particularly in petroleum projects. These projects were including drillings whose costs were relatively lower and output was also lucrative for the company. This policy was also including another objective: Russia would have controlled the export

route of the energy. Azerbaijan was an important ally for Lukoil's operation in Caspian region which is expected in terms of personal level since Alekperov was half Azeri.

On the other hand, Lukoil's presence was politically important for Azerbaijan in terms of balancing the presence of other foreign (mostly Western) companies in the region. Lukoil also targeted Kazakhstan during its expansion in 1990s. Lukoil continued to expand in Kazakhstan by owning %12.5 shares of Caspian Pipeline Consortium which was in the process of building a 1500 km pipeline to connect the oil fields of Kazakhstan with the Russian terminal (Poussenkova, 2010).

Lukoil's upstream project was not only limited to Caspian Pipeline Consortium, there were also various projects that Lukoil involved alongside other energy giants from other regions as well.

Lukoil involved in eight upstream projects in 1990s, mostly in Caspian region (see Table 16). Azeri-Chirag-Gunesli in Azerbaijan was the first project that was initiated in 1994 which Lukoil has 10% shares. Majority shareholder was British Petroleum as known as "BP" with 34% share. Project timeframe was determined as between 1994-2024. Shah-Deniz in Azerbaijan was another project which Lukoil has 10% share again. BP and Statoil were major shareholders of this project. Starting time of the project was 1996 whereas it is supposed to end in 2036. Lukoil was not only part of the upstream pipeline projects in Caspian or Central Asia. Lukoil involved in other upstream projects in the Middle East such as Egypt and Iraq which integrated Lukoil to other markets apart from its own region (Poussenkova, 2010).

Table 16 - Lukoil Involvement in Foreign Upstream Projects during the 1990s

Table 16.

Lukoil Involvement in Foreign Upstream Projects during the 1990s.

Project/Country	Project/Time frame	Lukoil's share	Other Participants
Azeri-Chirag-Guneshli (Azerbaijan)	1994-2024	10%	BP 34.1 % Chevron 10.1% SOCAR 10% Statoil 8.5% ExxonMobil 8% TPAO 6.8% Devon Energy %5.6 Itochu %3.9 Amerada Hess %2.7
Shah-Deniz (Azerbaijan)	1996-2036	10%	BP 25% Statoil 25.5% Total 10% NICO 10% SOCAR %10 TPAO 9%
Yalama (Azerbaijan)	1998-2035	65% (Operator)	SOCAR 20% GDF SUEZ 15%
Kumkol (Kazakhstan)	1995-2021	50%	CNPC 50%
Karachaganak (Kazakhstan)	1997-2038	15%	BG Group 32.5% ENI Group 32.5% Chevron 20%
Tengiz (Kazakhstan)	1997-2032	2.7% through LUKARCO (5%)	Chevron %50 ExxonMobil 25% KazMunaiGaz 20%
Maleya (Egypt)	1995-2024	24%	EGPC 56% IFC 20%
West-Kurna 2 (Iraq)	1997-2020	68.50%	SOMO 25% Zarubezhneft 3.25% Mashinoimport 3.25%

Note : Retrieved from *The Global Expansion of Russia's Energy Giants*, Poussenkova, 2010

Briefly, Lukoil is key figure in Russian energy industry. Based on information, provided in official website of Lukoil, in 2020 Lukoil produced 73.5 million tonnes of

crude oil and gas condensate in Russia which represents 14.3% of Russia's total production. Based on oil production structure of Lukoil in 2020, %49.63 of the production (Roughly 32 million tonnes) was realized in West-Siberia field of the company whereas %21.96 of oil production (roughly 14 million tonnes) was realized in Timan-Pechora (Lukoil, n.d. (a)). In general, Lukoil has 2.2% of global production of crude oil (Lukoil, n.d. (a)).

5.3.2 Gazprom

Gazprom holds the largest gas reserve as a legal entity in the world. Total share of Gazprom's gas reserve is approximately 17 %. In domestic level, Gazprom's share is 72% (Offshore Energy, 2015). Main operations are exploration, production, transportation, storage, processing and marketing of natural gas. There are more than 1800 upstream projects linked to related assets across the value chain including refineries, pipelines, LNG plants, and storage sites. Gazprom has more than 50 petrochemical plants and more than 150 power plants. Gazprom has more than 10 refineries (Global Data, n.d.).

Gazprom's history started in 1960s and continuation of Ministry of Gas Industry of USSR in 1965. Gazprom was restructured in 1989 and became corporation. In the beginning of 2000s President Putin was aware how much Gazprom was important for Russia and implemented new strategic when he came to power. Alexey Miller and Dmitry Medvedev who were close allies of President Putin, were nominated as CEO and Chairman of the Board, respectively. Main purpose of President Putin was to gain absolute control on Gazprom. In this regard, Gazprom's board was consisting of only Putin-linked individuals in 2005 and Gazprom agreed to sell 10.7% of its shares to Russian state which makes the Russia majority shareholder of the company.

Gazprom is in various projects in the Yamal peninsula, Arctic region and East Siberia for gas exploration. Gazprom has also extensive infrastructure to transmit the gas to the importers.

5.3.3 Rosneft

Rosneft is state-owned oil and gas company. Their main operations are exploring, production and development of crude oil and distribution of petroleum products and petrochemicals. Like other Russian energy companies, Rosneft has also exploration assets in various locations of Russia: Rosneft has facilities in Western Siberia, Eastern Siberia, Timan-Pechora, Volga-and Ural Regions, Krasnodar and the Russian Far East. Not only in Russia, there are also several oil facilities of Rosneft in other countries such as Venezuela, Ecuador, Cuba, Canada and China. They have operations in 23 countries and 78 regions of Russia. Rosneft has 6% share in global oil production (Rosneft, 2021).

5.4 Russia's Energy Exports (Oil and Natural Gas)

As previously referenced, Russia is one of the largest oil and gas producer of the world. Moreover, they have the largest gas reserve in the world. This capacity makes Russia one of the main exporters of oil and gas via its various energy companies. In this regard, this sub-chapter aims to examine to what extent Russia needs energy import from other countries, but more importantly dependency level of third parties for Russian energy, particularly oil and gas.

5.4.1 Russia's Export: Dependency of Third Parties to Russian Energy

As Russia has significant role in export of its natural resources in international energy market, we can argue that there is a remarkable trade volume which Russia acts as exporter. Particularly gas is an important revenue item for Russia since both production and reserves are quite high in terms of gas export of Russia.

5.4.1.1 Characteristics of Natural Gas Dependency of Importers

In order to measure to what extent other countries are dependent on Russian gas, firstly it should be started with the demand of the market. In this regard, we should also look at the alternative exporters and figure out whether they would be able to meet the demand of the importers. Another element while trading is that the cost calculation. For instance, importing natural gas from Russia may be different,

compared to imports from Norway. Moreover, logistic feasibility is another important factor while determining the exporter: an importer may be located in a route where Russia has pipeline whereas -for instance- Algeria doesn't have.

Based on statistics provided in BP (2021), Russia's total gas export is 197.7 billion cubic meters. Largest importer of Russian gas is Germany and they imported 56.3 billion cubic meters. However, Germany does not only rely on Russian gas and they imported 31.2 bcm from Norway and 13 bcm from Netherlands in 2020. Total import of Germany is 102 bcm in 2020. On the other hand, total gas consumption of Germany is 86 bcm in 2020 which means that Germany's total gas consumption is less than the export. Therefore, it could be argued that Germany tends to reserve gas for immediate needs. It should be also noted that Germany produced roughly 4 bcm gas in 2020 even though it does not represent significant asset in total reserve.

Basic calculation will give an understanding on a country's gas import policy: $\text{Import} + \text{Production} / \text{Consumption} \times 12 \text{ (months)} = X$. $(I+P/C \times 12)$. This calculation will give an information that how long a country will sustain by using the reserves without importing and producing.

France seems less dependent for Russian gas and they imported 2.6 bcm. BP report (2021) shows 55.2 bcm import from Russia for "Other EU" countries which have pipeline connection with Russia. In this regard, gas export of Russia to Europe is 167 billion cubic meters which represents % 84.77 of total gas export of Russia to whole world. When we look at the total gas consumption of Europe in 2020, it was calculated as 541.1 bcm. It means that Europe imported 30% of its consumption from Russia. Biggest rival of Russia in terms of exporting gas is Norway which is trusted port for Europe. Norway's total export to Europe is 106.9 bcm which makes approximately 19.9% of total gas consumption of Europe (BP, 2021).

Should Russia cease the flow of natural gas, finding an alternative source of natural gas supply to Europe would be a real challenge. It is quite unclear as to who would supply the European market and whether such suppliers would have resources as rich as the Russian one needs to be answered. We shall now look into the following to find an answer to these challenges. To find an answer for this question, certain data should be provided such as (1) production and reserve of main exporters apart from Russia, (2) gas reserve of non-producers, (3) gas consumption of non-producers.

First one would give an idea how other producers would be sufficient to meet gas demand of importers. Second one would help to understand that if non-producer countries would not be able to find any exporter, how long they will sustain without importing and producing gas. Third one would give an information on how much non-producer countries consume gas on yearly basis and it would reveal an information how long the reserve will last in current conditions. However, it should be noted that total gas reserve of whole Europe is only 3.2 trillion cubic meter which is %10 of Russia's total gas reserve. Next chapter will provide more information that can be response against the challenges mentioned above paragraph.

5.4.1.2 Russia as the Main Supplier of Oil to Europe

Russia is only acting as exporter in crude oil and they don't import crude oil from any country. Russia's total oil export to whole world is 260 million tonnes in 2020. 138 of 260 million tones was exported to Europe. Europe's top import is also from Russia and followed by other CIS countries and West-Africa (BP, 2021). Moreover, US exported 57.9 million tons of crude oil to Europe in 2020. Europe's total import of crude oil is 475.9 million tonnes in 2020. Russia's crude oil export to Europe is 29% of total crude oil import of Europe. When we look at the consumption numbers of Europe, total consumption of Europe seems as 603.1 million tonnes in 2020. It means that Europe can meet %21.2 of own demand from its own sources (BP, 2021).

Here are some deductions from oil export performance of Russia: (1) Russia is the top crude oil exporter. (2) Top importer of Russian oil is Europe. (3) Total oil consumption of Europe is more than they imported which shows that difference can be supplied from its own resources of the Europe. (4) Other countries except Russia have enough capacity to meet the demand of Europe. For instance, Iraq's total oil consumption is 30.2 million tones whereas their oil production is 202 million tones. Saudi Arabia produced 519.6 million tones oil in 2020. Total consumption of Saudi Arabia is 150 million tones. (5) Russia is the largest oil producer in Europe and CIS region (524 Million tonnes). (6) Europe may seek alternative exporters except Russia but cost would not be the same as the exporter will change.

6. THE DISCOURSE OF ENERGY INTERDEPENDENCE THROUGH THE RUSSIAN CASE

The notion of interdependence actually starts with the idea of “economic interdependence” which was first conceptualized by Immanuel Kant in his famous book: *Perpetual Peace*. After 1960s, principles of “Perpetual Peace” were developed with the idea of “Democratic Peace Theory” (Kant, 1795). This theory remained on the agenda of IR society and liberal democratic peace theorists argued the idea of “dividends from peace” and they advocated that developing commercial relations in trading countries may lead to more cordial relations between trading countries (Oneal & Russett, 1997). In this regard, energy has become a vital “commodity” in this relationship.

Since energy is affecting all fundamental needs of human life as well as the interests of states, the governments deem energy sources as an indispensable “weapon” which are significant from the perspective of national security and welfare. Energy can be interpreted as a “national security” issue since it may pose threat in terms of creating damage on military of a country. On the other hand, it has also potential to create detrimental effect on economy of the country which exporter country derives significant revenue from the trade with the importer. Importer’s need may vary on the relationship level with the exporter. Price, quality and most importantly whether there is other exporter in the market which is able to provide same goods/service.

Energy policy of the countries may depend on their resource availability. For instance, Germany as a resource poor country may prioritize supply security more than a resource rich country like Denmark (hydro-carbon) (Ozawa & Iftimie, 2020).

Ozawa & Iftimie (2020), suggests that many energy analyst claim that there is an interdependence between Russia and Europe. However, this interdependence is unequal according to Ozawa and Iftimie. Because Russia is overwhelmingly exporting natural gas to Europe and Europe exports manufactured finished goods to Russia which makes this relation unequal in terms of interdependency.

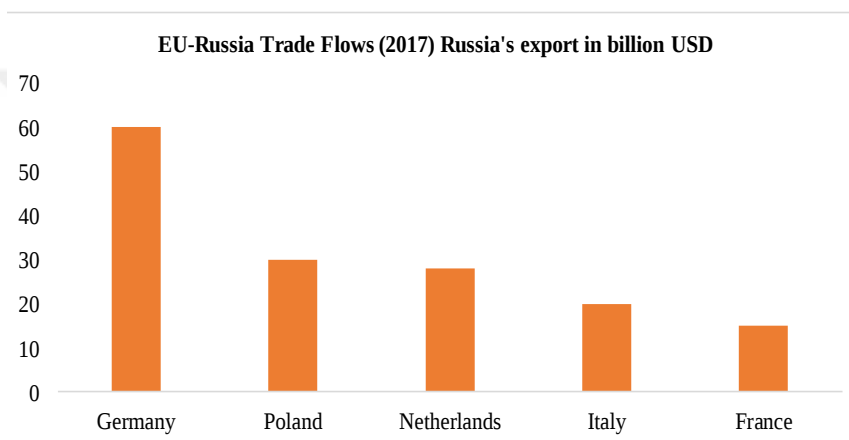
When we look at the EU-Russia trade flows period between 2000 and 2019, the peak point is 2008 which Russia’s export reached above 250 billion USD. Weakest year for Russia is 2016 (Ozawa & Iftimie, 2020). Russia prefers to trade and negotiate

bilaterally with European countries rather than institutionally/multilaterally under NATO or European Union's umbrella. This created division in NATO and E.U since this tactic is putting pressure on individual governments for better trade deals and negotiating bilaterally makes importer government more vulnerable. Russia's main trading partners are mostly Western Europe countries and most of the Europe has negative balance in their trade with Russia. It means that the value of Europe's import is higher than the revenue that they derived from the export to Russia (see Fig. 3).

Figure 3 - EU - Russia Trade Flows (2017) Russia's export in billion

Figure 3.

EU-Russia Trade Flows (2017) Russia's export in billion USD



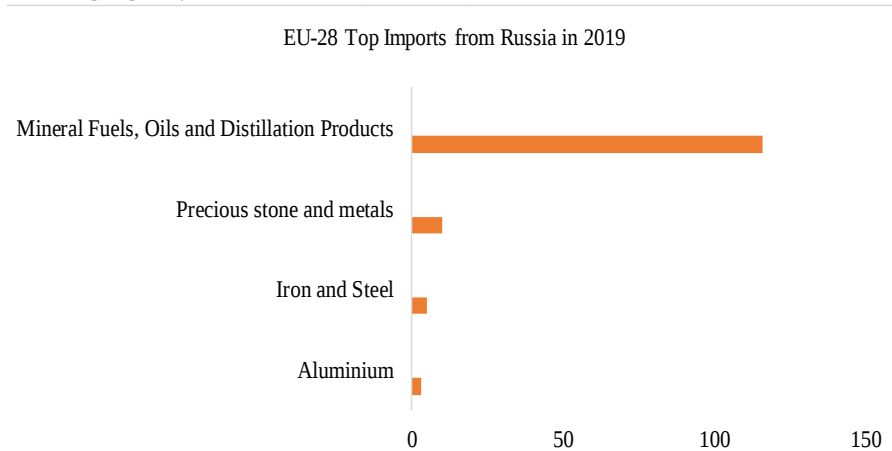
Note: Modified from Russia's Energy Policy: Dependence, Networks and Special Relationships, Ozawa & Iftimie, 2020

When we look at the EU-Russia trade flows in 2017, Germany is being ranked as the first country which imports goods from Russia, amounting to 60 billion USD. Other following countries are Poland, Netherlands, Italy and France whose total import is equal to 95 billion USD approximately. This data does not show only oil and gas export of Russia but also includes other export goods. However, it should be noted that Russia is mainly exporting mineral fuels, oils and distillation products etc. Figure 4 reflects what Russia exports to E.U 28 countries.

Figure 4 - EU-28 Top Imports from Russia in 2019 (billion USD)

Figure 4.

EU-28 Top Imports from Russia in 2019 (billion USD)



Note: Modified from Russia's Energy Policy: Dependence, Networks and Special Relationships, Ozawa & Iftimie, 2020

6.1 Natural Gas Pipelines from Russia to Europe

There are several transportation routes for the natural gas which Russia transmit to Europe through pipelines. First one is called as “Brotherhood” pipeline which was constructed in 1967 and its source is Siberia and Volga. The route of this pipeline is Ukraine, Slovakia and it splits into two branches 1) Czech Republic, Germany, Benelux countries, France and 2) Austria-Italy/Slovenia/Croatia. The capacity of this pipeline is 100 billion cubic meters/year (Planet Energies, 2022).

Second pipeline is Yamal, constructed in 2006 and it starts from Yamal peninsula in Russia, and it goes through Belarus, Poland and ends in Germany. Total capacity for this pipeline 33 billion cubic meter (Planet Energies, 2022).

Third pipeline is Nord Stream which was constructed in 2012 and this pipeline is seen as a vital pipeline for Europe since most of EU states are indirectly dependent on this pipeline as it is ends in Germany which also transports natural gas to other EU states (Federal Ministry for Economic Affairs and Climate Action, n.d.). Nord Stream starts from Western Siberia and connected to Yamal. It goes under the Baltic Sea and ends in Greifswaldt, Germany. Total capacity of this pipeline is 55 billion cubic meter per year. Russia and E.U aim to double this capacity by constructing second pipeline on same route with the project name “Nord Stream 2”. The pipeline was completed at the

end of 2021. However, authorization was suspended in February 2022 due to outbreak war between Russia and Ukraine.

Fourth pipeline is Turkstream which was constructed in 2016 and opened in 2020. Source is Russia and it goes through Kırıkköy, Turkey and ends in Ipsala in Greek-Turkish border (Planet Energies, 2022). This pipeline replaced South Stream which was constructed in 2012 in order to supply more gas to Europe. South Stream project also intended to be a rival of the project “Nabucco”. (The project aimed to supply Europe. Source is Azerbaijan and route is Turkey and Bulgaria) This project aimed to supply 63 billion cubic meters annually. The natural gas would have entered the EU via Bulgaria. Turkey would have used its territorial waters.

Complete route was including some EU states such as Bulgaria, Hungary, Slovenia, Austria and Italy. As a non-EU state, Serbia was also part of the route. However, this project was cancelled due to concerns of EU for their dependency on Russian gas.

Signing an agreement for a new pipeline would have reiterate EU’s dependency and limit their maneuver against Russia in potential diplomatic disagreements. Russian annexation of Crimea was already hot topic when the discussions for South Stream was on the desk. Therefore, the project was cancelled in December 2014 (Korsunskaya, 2014). Turkstream’s total capacity is 31.50 billion cubic meters per year. %50 of the gas would be transported to Turkey and other half would be transported across Turkey to Greece and other EU states. Another significant feature of Turkstream is to bypass Ukraine as a transit route to Europe. It should be noted that there is also another pipeline which only transports natural gas to Turkey, called as “Blue Stream”. It was constructed on 15th of October, 2002. Blue Stream transports 16 billion cubic meter annually.

6.2 The Quest of Alternatives to the Supply of Russian Gas

There are several pipelines which may be alternative to replace or reduce dependency on Russian gas. For instance, Nabucco project was designed in 2002 (ETN Global, n.d.) and intergovernmental agreement was initiated in 2009 (Republic of Türkiye Ministry of Foreign Affairs, 2009). Therefore, 31 billion cubic meter gas would be supplied from the Caspian region, Middle East and Egypt. This pipeline would have passed through Erzurum, Turkey and reaching Europe, to Austria. This project was

subsidized by European Union and the U.S in order to reduce efficiency on Russian gas. The main partners of this project were OMV of Austria, MOL (Hungary), Transgaz (Romania), Bulgarian Energy Holding (Bulgaria), BOTAŞ (Turkey) and RWE (Germany). All partners had an equal 16.67% share of the project (Hydrocarbons Technology, n.d.).

Having multiple suppliers for this pipeline is another dimension to establish joint cooperation against potential monopoly of Russia on natural gas. Not only Iran, Iraq and Azerbaijan but also Turkmenistan was prominent partner of the project which had close ties to Russia at the same time. Turkmenistan produces 67 billion cubic meter of gas per year according to BP statistical review (BP, 2021). Turkmenistan is the key player of its region by their supply capacity, compared to Kazakhstan and Uzbekistan. In 2008, Berdymukhamedov government invited audit companies to perform due diligence on South Lolatan gas field of eastern Turkmenistan (QCEA, 2009). According to the results of this due diligence, this gas field is capable of doubling Turkmenistan's gas output. Neither Kazakhstan, nor Uzbekistan are capable to supply Nabucco substantially. Therefore, this made Turkmenistan as the only central Asian state that could sufficiently supply gas to Nabucco (QCEA, 2009).

There are certain reasons as to why Nabucco pipeline was abandoned which can be linked to political reasons rather than commercial. First one is Azerbaijan's stance: they preferred to be less assertive for their positions in terms of their current relations with Russia and they didn't want to carve into Gazprom's share in gas market. There was a potential that Moscow would have seen as a direct threat. In addition to that, there was no robust support from the U.S to Azerbaijan to sustain the project. Another reason is linked to first one: U.S energy policy was transforming although U.S played key role in the Caspian region for strategic interest of the allies. U.S helped stabilize the region and enabled stakeholders to keep product flowing towards the West. Therefore, they tried to prevent monopolization of Russia, China and Iran. However, developments in US shale oil changed Washington's strategy and US stopped prioritizing developing new initiatives in the region (Palti-Guzman, 2014).

The importance of US involvement in Caspian was also addressed by Aybar (2017) in his article. He argues that the cooperation between US and Turkish firms matters in the Caspian in terms of producing positive results to reach former Soviet Union

Republics, Eastern Europe and Central Asia as well (Aybar, 2017). However, Nabucco lacked political support of E.U and U.S to handle maneuvers of Russia and Gazprom.

Second important alternative for Russian natural gas was South Caucasus Pipeline (“SCP”) which is capable to transport 7 billion cubic meters annually. This pipeline is still active and it transports the natural gas of Azerbaijan through Baku-Tbilisi-Erzurum and it interconnects to Trans-Anatolian Natural Gas Pipeline (“TANAP”) which is another important pipeline to transport the gas to Europe.

TANAP starts from Erzurum which is interconnection of SCP and carrying the gas of SCP to Greek border, Europe. It passes through Albania and reached Italy. SCP and TANAP represent a project which is called as Southern Gas Corridor (Planet Energies, 2022). Another important feature of TANAP is to be longest natural gas pipeline and largest diameter in Turkey, the Middle East and Europe. The length of TANAP is 1811 km while diameter of the pipe measures 56 inches (TANAP, n.d.). TANAP is also connected to TAP which carries natural gas to Europe, crossing through Bulgaria, Greece, Albania and Southern Italy through the Adriatic Sea.

Therefore, Southern Gas Corridor consists of 3 pipelines and TAP is the final annex of the corridor. These 3 pipelines are strong contributors to natural gas need of Europe and also meaningful relationship between European Union and Azerbaijan which is exporter of the natural gas in Southern Gas Corridor. Turkey also plays a vital role in this corridor since it is interconnection point in SCP and TANAP. Southern Gas Corridor starts with SCP but the source of the gas is called as “Operation of Shah Deniz natural-gas condensate field (“SD1” project) and its full-development”. Another important terminal is Sangachal which was part of “Chirag Oilfield” – Early Oil project which was an offshore oil field project in the Caspian Sea.

In 2001, the project was expanded by constructing “Sangachal Terminal Expansion Program”. Lee Morrison emphasizes that this terminal is among the world’s largest of terminals and is also home to the main control rooms and first pump stations for several major international transit pipelines (Morrison, 2017).

It should be discussed to what extent Southern Gas Corridor is capable to replace Russian natural gas and is it capable to make SGC primary source for Europe’s natural gas need (see Fig. 5). SGC is one of six energy related infrastructure proposal

from Second Strategic Energy Review of the European Commission in 2008. European Commission refers to the importance of SGC in its action plan report published in 2008 as follows:

“A southern gas corridor must be developed for the supply of gas from Caspian and Middle Eastern sources, which could potentially supply a significant part of the EU’s future needs. This is one of the EU’s highest energy security priorities. The Commission and Member States need to work with the countries concerned, notably with partners such as Azerbaijan and Turkmenistan, Iraq and Mashreq countries, amongst others, with the joint objective of rapidly securing firm commitments for the supply of gas and the construction of the pipelines necessary for all stages of its development. In the longer term, when political conditions permit, supplies from other countries in the region, such as Uzbekistan and Iran, should represent a further significant supply source for the EU.” (Commission of the European Communities, 2008)

In fact, this paragraph from the action plan report also shows how EU gives an importance to reduce its dependency on Russian natural gas. The principal goal was clear for EU: *“Ensuring secure and affordable supplies of energy to Europeans by diversifying supply routes that decrease the dependence of EU countries on a single supplier of natural gas and other energy resources.”* (European Commission, 2008)

Figure 5 - The Southern Caucasus Pipeline Expansion (SCPX) Corridor

Figure 5.

The Southern Caucasus Pipeline Expansion (SCPX) Corridor



Note . Reprinted from Southern Gas Corridor: The Geopolitical and Geo-Economic Implications of an Energy Mega-Project, Morrison, 2017

According to European Commission report, alternative is also being sought in the Middle East and the Gulf. The original EC proposal for the SGC called an extension in the Mashreq, Iraq and Iran. Iran has the second largest proved gas reserve (U.S Energy Information Administration, 2021) in the World and Iraqi Kurdistan region would add 3.1 trillion cubic meter to total 33.5 tcm of Iran's reserve (Morrison, 2017). Both parties are aware of the importance of this extension and to what extent it would be crucial to make Europe less vulnerable against single supplier in the gas markets.

On the other hand, there are also other countries which are exporting natural gas to Europe. Norway is another important supplier, which exported 29% of EU piped gas in 2017 according to Morrison (2017) in his article. Algeria is also important supplier for Europe with three pipelines: Maghreb, TransMed and MedGaz.

These pipelines have a combined total capacity to Europe of 57 bcm per year. However, Algeria exported only 33 bcm to Europe in 2017. Lastly, the Netherlands has a capacity to export 127 bcm per year but it transported 43 bcm in 2017, as

indicated in Morrison's article "Implications of Southern Gas Corridor" (Morrison, 2017).

Another alternative is transporting of Liquefied Natural Gas ("LNG") which is more costly but remains as an alternative for EU's gas need. Qatar, Algeria and Nigeria are largest suppliers of LNG to EU. Total capacity of these three countries, is 50 bcm per year. When we look into details of exporter countries as of 2020, we see that some suppliers cannot run their full capacity in exporting natural gas to EU. For instance, the Netherlands produced 20 billion cubic meter natural gas per year in 2020 whereas their total proven reserve is 100 billion cubic meters. Netherlands consumed 36.6 billion cubic meters in 2020 which is more than they produced. Norway is the largest producer in Europe (except Russia) and they produced 111.5 billion cubic meters in 2020. Norway's total proven gas reserve is 1.4 trillion cubic meters. Norway consumed only 4.4 billion cubic meters in 2020 which is even less than 5% of its production.

Algeria is the second largest gas producer and they produced 81.5 billion cubic meters in 2020 and their total proven gas reserve is 2.3 trillion cubic meters. Algeria's total consumption is 43.1 billion cubic meter which is nearly 50% of its production capacity. When we look at these 3 important natural gas suppliers by their production capacity, it can be argued that the Netherlands has limited production capacity among the others and its proven gas reserve also remains limited compared to others. In this regard, it would be expected that the Netherlands try to run its full capacity in exporting natural gas to EU and reduce EU's dependence on Russian natural gas but export numbers show that Netherlands exported gas to EU more than its capacity which means that the reserve is being used (BP, 2021).

Norway has highest production capacity compared to Algeria and Netherlands and their consumption is far less than Algeria and Netherlands. It should be noted that Norway is also pushing the limits: their export capacity is almost equal to production capacity. Same can be argued for Algeria since their export capacity is also equal to the production capacity. Azerbaijan exports 13.4 bcm natural gas to EU in 2020 whereas production capacity is 25.8 bcm and the consumption is 11.9 bcm. Azerbaijan can almost meet its own need: almost 50% of natural gas production of Azerbaijan is exported to Europe and other 50% is used for internal need (BP, 2021)

Iran is a massive natural gas producer but also significant consumer. They consumed 93% of they produced in 2021 but it should be noted that Iran has the second largest gas reserve after Russia, based on BP (2021) Statistical Review report. Iran exports only 5.1 bcm and this was not exported to EU, but instead Turkey. Therefore, it could be argued that EU cannot benefit from Iranian natural gas which is related to sanctions on Iran.

Table 17 shows main natural gas suppliers except Russia and also shows their production capacity, reserve, consumption and export numbers. It aims to explain on “Do other countries export natural gas to EU by using their full capacity”?

Table 17 - Production, Reserve and Consumption Data of Major Natural Gas Suppliers

Table 17.

Title : Production, Reserve and Consumption Data of Major Natural Gas Suppliers

Countries	Production Capacity	Reserve	Consumption	Export capacity to EU (bcm) * except UK
Norway	111.5 bcm	1.4 tcm	4.4 bcm	83.2 (pipeline) + 3.7 (LNG)
Algeria	81.5 bcm	2.3 tcm	43.1 bcm	21.0 (pipeline) + 13.9 (LNG)
Netherlands	20 bcm	100 bcm	36.6 bcm	27.1 (only pipeline)
Azerbaijan	25.8 bcm	2.5 tcm	11.9 bcm	13.4 (only pipeline)
Iran	250.8 bcm	32.1 tcm	233.1	5.1 (only pipeline and it is only exported to Turkey)

Note. Modified from *Statistical Review of World Energy*, BP, 2021

BP (2021) report shows that total natural gas consumption of EU is 452.3 billion cubic meter in 2020 (370,9 bcm is through pipeline and 81,4 bcm through LNG). In this regard, main natural gas suppliers (except Russia) can only export 162,3 bcm natural gas to EU which represents only 35.8% of EU’s need. It should be also noted that except Iran, all other countries in Table 17 focused on exporting natural gas to only EU (with small exceptions that are not able to impact overall natural gas export to EU).

Remaining 290 bcm is mostly provided by Russia: Russia transported 178 bcm natural gas to EU in 2020 which is %61 of remaining 290 bcm. Other %39 is exported by other countries in Europe to EU countries. Therefore, it could be argued that EU's 39% of natural gas import is dependent on Russian natural gas export. ($178 \text{ bcm} / 452 \text{ bcm} \times 100$)

6.3 Analyzing the Interdependence of EU and Russia over Energy Supply

Interdependence between EU and Russia has been a remarkable subject for a very long time and it continues to pop in each crisis between Russia and the west. There is a common belief that EU is dependent on Russian natural gas and in return Russia is dependent on the revenue that it would derive from natural gas sales to European Union.

It should be examined to what extent there is an interdependence between EU and Russia or is there only dependence of one side rather than interdependence. In order to establish basis of this sub-chapter, previous sub chapter discussed the alternatives of Russian gas for European Union. As previously discussed, there are two physical alternatives of transporting natural gas before discussing the exporter. First one is pipelines and second one is to liquify the gas, convert to liquified natural gas ("LNG") which enables the clients to import the natural gas via the tanks (often by sea), not pipelines.

Even though this option is more costly than the pipelines, it is not always feasible since this option also requires some facilities such as LNG terminals and regasification terminals. Particularly, regasification terminals are required for importers since this facility is converting liquified gas to gas again once it is loaded. For instance, there are currently 23 operational LNG regasification terminals which are established in eight western NATO countries whereas there are only 4 LNG terminals in eastern NATO countries (Ozawa & Iftimie, 2020). They claim that Russia needs to sell its gas to Europe more than Europe needs to buy (Ozawa & Iftimie, 2020). 40% of EU's natural gas consumption is met by Russia but this consumption represents more than 70% of Russia's overall gas exports.

Ozawa & Iftimie (2020) suggest that interdependence should be assessed in a country level rather than whole European Union.

On the other hand -for instance-, eastern EU countries need to import Russian natural gas more than Russia needs to sell to these countries. For instance, Lithuania is 100% dependent on Russian natural gas but this 100% does not represent a large amount of natural gas sales for Russia. When Lithuania buys 100% of its need from Russia, this trade amounts to less than half of 1 percent of total Russian natural gas exports to Europe. Thus, if Russia decides to cut the supply of natural gas to Lithuania, Lithuania will significantly suffer from lack of source but Russia can easily replace Lithuania by slightly increasing the supply of natural gas to another European country which is already client of Russia (Ozawa & Iftimie, 2020).

Table 18 (Ozawa & Iftimia, 2020) reflects the dependency on Russian gas in percentage and share of this percentage in Russian gas exports to EU in overall.

Table 18 - Interdependency between Russia and EU members on natural gas

Table 18.*Interdependency between Russia and EU members on natural gas*

EU Member	Gas Share of Total Primary Energy Supply in percentage	Dependency on Russian Gas in percentage	Share of Russian Gas Exports to EU in percentage
Austria	22	57	4
Belgium	25	14	1
Bulgaria	14	100	2
Croatia	25	62	0
Cyprus	0	0	0
Czechia	15	36	2
Denmark	17	61	1
Estonia	7	80	0
Finland	6	100	1
France	16	27	6
Germany	23	57	30
Greece	12	84	1
Hungary	31	94	4
Ireland	30	5	0
Italy	39	38	13
Latvia	26	100	1
Lithuania	29	100	0
Luxembourg	19	25	0
Malta	0	0	0
Netherlands	40	66	14
Poland	15	76	6
Portugal	20	0	0
Romania	27	89	1
Slovakia	24	84	2
Slovenia	10	63	0
Spain	21	0	0
Sweden	2	0	0

Note: Modified from Russia's Energy Policy: Dependence, Networks and Special Relationships , Ozawa & Iftimie, 2020

Based on Table 18, it can be argued that some countries are heavily dependent on Russian natural gas. For instance, Bulgaria, Finland, Latvia, Lithuania is entirely dependent on Russian gas. As in Lithuania example, Bulgaria, Finland and Latvia do not represent significant weight in Russia's gas export to EU. Total percent of exported Russian gas to Bulgaria is only 2% in overall Russia's gas export. Export to

Finland and Latvia does not exceed 1% for each either. Russia may even cut off the gas to these countries and it can recuperate this “loss” by increasing the supply for other countries or slightly increase the price.

At least for these four countries, it would not be possible to describe this relationship as “interdependent”; rather this can be described as dependence of these countries on Russian natural gas. After these four countries, there are also several countries that are highly dependent on Russian natural gas but this dependency does not represent equal importance in share of Russian gas export. These countries are Estonia, Greece, Romania and Slovakia. On the other hand, Germany is dependent on Russian natural gas on 57 percent whereas this dependency represents 30% in Russian natural gas export which is very valuable for Russia. This type of relationship can be treated as “interdependent” between two countries. Italy is another country which is client of Russian natural gas but also client of Algerian natural gas which makes Italy less vulnerable against Russia for gas import. The statistics for Netherlands show another key finding: Russia is an important gas exporter for Netherlands as Netherlands is considerably dependent on Russian gas which also makes Netherlands an important client of Russia at the same time.

A research report published by Tony Blair Institute for Global Change also reveals that there is an interdependence between Russia and EU on a large scale. Authors of the report suggest that Russia’s total exports in 2019 valued 425 billion USD including gas sales whose share is 13% (Delorme, 2022).

6.4 Interpretation of Energy Interdependence of Russian Oil

In this section, the focus will be mutual dependency to the Russian oil and gas for European countries and the United States. This statement can become more meaningful with the view of dependency argument of unbalanced trade relationship between developed and under developed countries. Based on this theory, under developed countries are able to buy manufactured goods from developed countries in return for a supply of raw materials. Dependency theory argues that trade balance should be sustained by developed countries (core countries) to keep under developed countries (periphery) as undeveloped.

There are also several countries which are classified as semi periphery that are industrialized and also adopt capitalist approach but not enough powerful to produce and sell in large quantities and amounts. On the other hand, these countries are not able to influence and mandate other countries politically and economically. Russia is also one of the countries which is classified as semi periphery country (Hopf, 2012). This means that Russia can produce and sell in certain quantity and amount but it is not enough powerful to mandate its policies. Thus, it shows that Russia is half dependent on the West. This dependency does not always necessarily mean that Russia is dependent on certain products that are sold by the west. That dependency is mostly related to its financial vulnerability against the west.

For instance, Russia needs to keep itself integrated in international financial markets which are mostly dominated by certain currencies such as US Dollars, Euro, UK Pound and Swiss Franc. For instance, Russian banks would need loan in USD currency to pay its debts in USD or they would need to buy USD by selling Ruble. All of these actions require financial integration of Russia to maneuver in international money markets. On the other hand, Europe is also dependent on Russian gas which is explained in this chapter in detail.

Russia's semi-dependent position is also revealed by Ruslan Dzarasov in his article "Semi-Peripheral Russia and the Ukraine Crisis". He argues that Russia is not adopting classical peripheral capitalism, rather Russia's ability to challenge domination of core countries, make Russia semi-peripheral, not peripheral country. On the other hand, another capability of Russia is positioning them among semi-peripheral countries: that is possession of nuclear weapons. According to Dzarasov, *"if it had not existed, Russia would have been subjugated to the Western interest a long time ago, just as Ukraine was"* (Dzarasov, 2016). All of these balances enable Russia to continue impacting global politics as a semi-peripheral country as much as a core country does.

At this point, what are the primary factors and who are the actors that make Russia a semi-peripheral country? As explained above in detail, the primary factor is being a giant natural gas producer and exporter. Secondly, Russian energy companies who are part of Russian foreign policy, make Russia a strategic "partner" for importers. Ozawa and Iftimie (2020), verify the argument of Dzarasov: They argue that Russia sees

NATO as a hostile alliance and Russia does not have a capacity to confront NATO militarily as long as US will continue to be main pillar of NATO (Ozawa & Iftimie, 2020). In this regard, Russia prefers to use its natural resources as a foreign policy instrument in order to achieve strategic objective. In parallel with this determination, former U.S Secretary of State Mike Pompeo described Russian gas projects as the *“Kremlin’s key tools to exploit and expand European dependence on Russian energy supplies that ultimately undermine transatlantic security”* (Lee, 2020).

Russia is also aware that to what extent its energy policies would be vital and it is necessary to integrate into Russian foreign policy. Russia’s Energy Strategy 2035 draft document suggest that that Russian Ministry of Energy emphasized that the oil and gas industry amounts to *“a quarter of country’s GDP and about a third of investments, more than half of exports and 40 percent of the federal budget revenue.* (Ozawa & Iftimie, 2020)” Russia’s national security strategy 2020 asserted that Russia’s primary goal is to become a global economic and military power. This objective was assessed that Russia’s national security is dependent on energy security which is subject to Europe’s dependency on Russian natural gas (Ozawa & Iftimie, 2020). In this regard, it could be argued that Russia’s link to dependency theory emerges from its own “weapons”: it is semi-peripheral country that has significant natural source which core countries are highly dependent. Selling natural gas does not only derive revenue for Russia but also provide security and also opportunity to challenge Europe in order to achieve political goals.

In this sub-chapter I refer to interdependence between Europe and Russia in natural gas rather than oil because the interdependence in natural gas is more critical, compared to interdependence in oil. There are two specific reasons for this statement. First, Russia’s total oil reserve share in global market is approximately between 4.5% and 6% (Anderson, 2008) whereas total natural gas reserve share of Russia is approximately 20% of global market (BP, 2021). Secondly, although Russia can derive huge revenue from oil, still they cannot be in a price setter position in oil market since there are other significant rivals such as Saudi Arabia, Venezuela and Canada. On the other hand, it should be noted that oil is an easier commodity to transport and store. Hence, European countries have multiple options for oil supply. However, natural gas is more sophisticated in terms of transport and storage which makes Russia a critical supplier. Therefore, Russia also holds pricing power,

particularly in European market. These circumstances provide more political leverage for Russia which makes natural gas more strategic commodity for them.

In next chapter, the impact analysis of U.S sanctions on Russian energy industry by presenting the visible outcome of OFAC directives will be demonstrated.



7. THE IMPACT ANALYSIS OF THE U.S SECTORAL SANCTIONS ON RUSSIA

Sanctions on Russia by the U.S started after Russia's annexation of Crimea in 2014 and its military incursion into the Eastern part of Ukraine. The President of the U.S.A signed an executive order in response to these developments to initiate sanctions against Russian individuals, firms (most of them play vital role in Russian economy), vessels and aircrafts. Therefore, these sanctions would limit the access of the Russian parties to the U.S jurisdiction, particularly to the financial system in the U.S.

Thus, U.S persons (natural persons who have U.S citizenship and firms which are incorporated in the U.S) would naturally be affected from these sanctions. As of September 2021, the U.S has imposed sanctions on 735 persons (Rennack & Welt, 2021).

These sanctions are called "sectoral sanctions" in the U.S sanctions jargon since it specifically targets certain industries and related individuals. In particular, sectoral sanctions are applied to certain Russian entities in financial, energy and defense industries. U.S persons are not prohibited but restricted from engaging in specific transactions with these corporations within the limits of determined directives which are issued by the Department of Treasury, OFAC. Moreover, sectoral sanctions for Russia do not only target firms (including government agencies), but also specific projects which Russian companies deal with.

For instance, development of Russian Deepwater, Arctic offshore drilling or shale oil projects are also restricted if mentioned entities have an ownership interest of at least %33 (Rennack & Welt, 2021).

U.S is not only party that imposed sanctions on Russia after the annexation of Crimea, the E.U also determined some measures in terms of initiating sanctions against Russia. E.U's sanctions are also similar to U.S sanctions and it includes certain measures such as restricting financial services that Russian entities may benefit from and restricting third parties from participating specific Russian projects such as development of Russian Deepwater, Arctic offshore and share oil projects.

Related Executive Orders are 13660, 13661, 13662 and 13685 which were issued in 2014 and they provide a framework for the sanctions that are imposed on Russia. The main purpose of these sanctions was concerning Ukraine's security, stability, sovereignty and territorial integrity. As it was mentioned before, these sanctions are named as "sectoral sanctions" and its content is listed in a list which is called "SSI ("Sectoral Sanctions Identification") list", that contains all sanctioned names within this scope.

These sanctions are categorized as "Ukraine-/Russia" related sanctions and whoever may fall into the scope of these sanctions, they are being designated as sanctioned individual/corporate/vessel within the limits of U.S Sectoral Sanctions on Russia (SSI). On the other hand, Executive Order (EO) 13660 includes imposition travel bans and asset freezing of the persons that *"have asserted governmental authority over any part or region of Ukraine without the authorization of the Government of Ukraine"*(OFAC,, 2014(a)).

Based on press release made by OFAC on 6th of March 2014, *"This Executive Order allows the United States to sanction any individual or entity that is responsible for or complicit in actions or policies that undermine democratic processes or institutions in Ukraine or that threaten the peace, security, stability, sovereignty, or territorial integrity of Ukraine."* (OFAC,, 2014(a))

7.1 Background of Ukraine Crisis and Annexation of Crimea by Russian Federation

In March 2014, Russian Federation annexed Crimean Peninsula which is the eastern part of Ukraine just after political movements in Ukraine which ended with "The Revolution of Dignity", as known as "Ukrainian Revolution". No doubt, there were fundamental reasons why Ukraine became starring character for the tension between Russia and the West.

Ukraine was not the only country that Russian Federation and the West had disagreements on. In fact, Ukraine was itself the result of Russia's policies towards the region. The aggression in the region started in 2008 with Georgia crisis due to situation in Abkhazia and South Ossetia. In August 2008, there was a tension in Abkhazia and South Ossetia region which are also known as "separatists". Separatists

were also disturbing Georgian villages. Georgia harshly responded the separatist to halt these attacks. However, Russia was accusing of and holding accountable Georgia for the aggression. Moreover, Russia backed up the separatists and this led to war broke out between Russia and Georgia which lasted nearly two weeks in August 2008.

In fact, the roots of this war even go back to the early 1990s, just after the dissolution of USSR. Russia and Georgia had newly proclaimed their independences. Abkhazia and South Ossetia were the part of Georgia at that time and they were also seeking independence. Russia was again supporter of Abkhazia when the crisis erupted. No doubt, Georgia has been always pro-western and American throughout the years, particularly starting from the dissolution of USSR (Pruitt, 2018). The motivation behind this maneuver was to abstain Russian aggression and sphere of influence.

What it was experienced in Russo-Georgian war in August 2008 was another reflection of innate Russo-Georgian disagreement. This war was ended with diplomatic involvement of other parties such as France, Britain, United States and NATO. On the other hand, the ceasefire could not prevent Russia that they recognized Abkhazia and South Ossetia as independent states.

Russo-Georgian war was most remarkable milestone that was heralding what the region would expect in that next decade. On the other hand, Russia was evaluating NATO's maneuvers as an effort for expansion towards the Caucasus and Baltics. In addition to this, Georgia was very close to NATO and moreover Munich Conference one year before had not gone well over either. During the conference, Putin consistently complained about the expansion of NATO and argued that NATO's movements do not contribute to peace and stability. Furthermore, NATO's summit in Bucharest in 2008 was another and -maybe final- worsening development before the crisis erupted in Ukraine in 2014: NATO planned to invite Georgia and Ukraine to the summit and this summit was the first step of membership of Ukraine and Georgia in NATO. NATO's possible expansion was being assessed as a threat to the existence of Russia as per Kremlin's policies.

In this regard, what happened in Ukraine in March 2014 was -in fact- already heralded 6 years ago. Turmoil in Ukraine started in November 2013 after President

Yanukovych rejected the EU economic deal and instead agreed to receive Russia's offer which is worth 15 billion US Dollars (Mearsheimer, 2014). This decision led to civil protests in Kiev and protests were escalated day by day. Leading group of the protests is pro-EU Ukrainians and they were demanding the resign of pro-Russian government. However, the government was being already backed up by Russia.

Police was harshly retaliating the protesters. Protesters were believing that the Government was not independent and also, they were corrupted.

Protests came up with result and on 21 February, President Yanukovych accepted to hold snap elections on the condition that he would stay in office until the elections were held. However, it was later understood that he fled to Russia the next day. Russia was closely following the developments in Ukraine and they believed that dominance on Ukraine was vital in terms of consolidating Russian influence over Ukraine. Hence, Russia publicly declared that Russian citizens living in Ukraine were in danger due to situation, particularly in Kiev. That was "heaven-sent" opportunity for Putin since he was deeply concerned for NATO's plans on Crimea.

NATO was considering to build naval base in Crimean Peninsula which would be remarkable element to destabilize Russian influence in Ukraine (Mearsheimer, 2014). Interim government was pro-EU/West and also had tough stance against Russia. According to Mearsheimer, U.S. backed up this "coup". It was later identified that based on leaked telephone recordings; U.S. Senator Nuland was advocating regime change and advised Ukrainian politician Arseniy Yatsenyuk to become prime minister (Mearsheimer, 2014). Ukraine would be the final step for Russia to be "surrounded" by the West and Putin was enough decisive to act harder than he did during NATO's expansion in Europe and the Baltics before.

As of 22 February 2014, Russia attacked to take Crimea from Ukraine and Crimea was easily incorporated into Russia as a result of Russia's military operation. According to Mearsheimer, Crimea was easy target since approximately %60 of the population is Russian and vast majority of this population wanted to be incorporated into Russia. Putin's maneuver put pressure on new government in Kiev. Reason of this pressure was to intimidate the new government to side with the West against Moscow. Otherwise, he would mess up Ukraine by following similar approaches – as

he did in Crimea – which would lead to disfunction of Ukraine (Mearsheimer, 2014). Moreover, Putin provided advisers, arms and diplomatic support to Russian separatists in eastern Ukraine alongside his massive army which was located in Ukrainian border to invade if the government would take tough measures against the rebels. Price of Russian natural gas to Ukraine was also increased and payment conditions were tightened. He was entirely hampering Ukraine to approach closer to the West. Mearsheimer justifies Russia's approach in Ukraine crisis and he argued that Washington may disagree with the position of Moscow but Russia's reaction is quite understandable. He advocated that all great powers may be sensitive in case potential security threats near their territory (Mearsheimer, 2014).

Russia's aggression on Crimea was not welcomed by the west. Western community assessed Russia's annexation as an action against the territorial integrity and sovereignty of Ukraine which led to the imposition of sanctions against Russian persons, entities, organizations and some Ukrainians who had exposure on the annexation of Crimea.

After the annexation of Crimea by Russia, the U.S imposed sanctions on Russia like International community. Having said that, sanctions imposed by the U.S on Russia were differentiating from other U.S sanctions programs which are administered by the Department of U.S Treasury, OFAC. This program was sector-specific and it was directly targeting certain industries of Russia and it was aimed to obstruct Russia's capability in the U.S financial markets or other markets on which the U.S has influence. Main objective was to limit Russia's access to U.S financial system which is also critical for Russia from banking and finance perspective. Therefore, U.S was planning to change the behavior of Russia and prevent Russian aggression in both Crimea and the region as well. In this regard, the U.S chose key industries that might diminish the revenues of Russia due to sanctions. In this regard sanctioning industries such as energy, banking, finance and defense were vital for limiting generating of income.

7.2 Scope of U.S Sanctions on Russia

Sanctions which are applied for Russia are mostly targeting specific entities in Russia, particularly operating the ones in finance, energy and defense sectors. U.S persons are restricted from engaging in various transactions with these entities which are listed in “Sectoral Sanctions Identification” list, issued by OFAC. This list is also administered by taking into account of four directives, which specifically refer to these sectors in Russia and explain how to approach these transactions.

Sectoral sanctions also prohibit U.S persons to engage trade transactions which are related to the development of Russian deep water, arctic offshore or shale oil projects in which listed entities (firms, government agencies) have an ownership interest of at least %33 or a majority of voting interests (OFAC, 2017a). This program was implemented by OFAC upon the Executive Orders of the U.S President. Moreover, like every sanction program administered by OFAC, U.S Sanctions on Russia have also certain statutes.

After these sanctions became effective by E.O, the program has been part of CAATSA which was proposed by the Senate to draw a general framework of these sanctions and explain in which scenarios further designations will be made in related to Ukraine-/Russia sanctions. When the U.S. President first issued Executive Order, legal basis was shown by referring to “International Emergency Economics Powers Act” and “National Emergencies Act”. Moreover, “Chemical and Biological Weapons Control and Warfare Elimination Act of 1991” (“CBW Act”), “Section 7503, National Defense Authorization Act for Fiscal Year 2020 - Protecting Europe’s Energy Security Act of 2019” (“PEESA”) and Section 1242, National Defense Authorization Act for Fiscal year 2021, Protecting Europe’s Energy Security Clarification Act (“PEESCA”) were shown as legal basis for these executive orders.

As explained above, sanctions on Russia are structured as a list which is called “Sectoral Sanctions Identification”. Names on this list, are subject to sanctions which the related executive orders determine. On the other hand, there is also another list apart from Russia sanctions and contains harder measures: this list is called as “SDN” which contains names of the firms, government agencies, individuals and organizations which U.S (and Non-US persons in some instances) persons are prohibited from engaging in all transactions. Even though, names which are related to

sanctions on Russia are linked to “SSI” list (which is more flexible to SDN list), same names can be also put into “SDN” list upon the Executive Orders, explained in above. If a name is also listed in SDN alongside SSI, it is also subject to “blocking” requirement. The property and interests in property of designated name are blocked.

The Sectoral Sanctions Identifications List includes persons determined by OFAC to be operating in sectors of the Russian economy identified by the Secretary of the Treasury pursuant to Executive Order 13662. Those Directives impose prohibitions on U.S. persons and within the United States for certain specified transactions with entities made subject to the relevant Directive, as identified on the SSI List. Each directive has different target and amended under Executive Order 13662.

7.2.1 OFAC Directive 1

Directive 1 was established in 2014, which is pursuant to Executive Order 13662 and it directly targets financial sector of Russia. Senior officers in OFAC have determined in consultation the Department of State and decided that following activities by U.S. persons are prohibited:

“(1) For new debt or new equity issued on or after July 16, 2014 and before September 12, 2014, all transactions in, provision of financing for, and other dealings in new debt of longer than 90 days maturity or new equity of persons determined to be subject to this Directive or any earlier version thereof, their property, or their interests in property.

(2) For new debt or new equity issued on or after September 12, 2014 and before November 28, 2017, all transactions in, provision of financing for, and other dealings in new debt of longer than 30 days maturity or new equity of persons determined to be subject to this Directive or any earlier version thereof, their property, or their interests in property.

(3) For new debt or new equity issued on or after November 28, 2017, all transactions in, provision of financing for, and other dealings in new debt of

longer than 14 days maturity or new equity of persons determined to be subject to this Directive or any earlier version thereof, their property, or their interests in property.” (OFAC, 2017b)

7.2.2 OFAC Directive 2

Directive 2 targets Russian energy industry by prohibiting certain transactions such as providing finance for or other dealings within new debt with a maturity of longer than 90 days for persons identified on the SSI list under Directive 2. Directive 2 had amendment on September 27, 2017 and the Directive was updated for the debts which were issued on or after November 28, 2017.

Directives 1 and 2 prohibit U.S persons to transact as defined in Executive Order 13662 wherever they are located. On the other hand, Directive 1 and 2 do not require U.S. persons to block the property of the entities/individuals unless these names are Specially Designated Nationals (SDN) list.

Content of Directive 2 is as follows:

“(1) For new debt issued on or after July 16, 2014 and before November 28, 2017, all transactions in, provision of financing for, and other dealings in new debt of longer than 90 days maturity of persons determined to be subject to this Directive or any earlier version thereof, their property, or their interests in property.

(2) For new debt issued on or after November 28, 2017, all transactions in, provision of financing for, and other dealings in new debt of longer than 60 days maturity of persons determined to be subject to this Directive or any earlier version thereof, their property, or their interests in property. (OFAC, 2017c)

7.2.3 OFAC Directive 3

Directive 3 targets Russian’s defense and related material industry by prohibiting certain transactions for U.S. persons. This directive also includes similar measures in Directive 1 and 2. However, this directive is not targeting energy industry of Russia (OFAC, n.d.(c))

7.2.4 OFAC Directive 4

Directive 4 is directly targeting Russian energy sector. Financial services are excluded in this Directive and target audience for this directive is mostly U.S persons, operating in energy industry. In this regard, following activities are prohibited as per Directive 4:

“The provision, exportation, or re-exportation, directly or indirectly, of goods, services (except for financial services), or technology in support of exploration or production for deep water, Arctic offshore, or shale projects:

(1) that have the potential to produce oil in the Russian Federation, or in maritime area claimed by the Russian Federation and extending from its territory, and that involve any person determined to be subject to this Directive or any earlier version thereof, their property, or their interests in property; or

(2) that are initiated on or after January 29, 2018, that have the potential to produce oil in any location, and in which any person determined to be subject to this Directive or any earlier version thereof, their property, or their interests in property has (a) a 33 percent or greater ownership interest, or (b) ownership of a majority of the voting interests.” (OFAC, 2014b)

This directive is mostly impacting Russian energy companies such as Lukoil, Rosneft, Surgutneftgas, Gazprom and Gazprom Neft. This directive is rather targeting oil and gas export and drilling projects that could be executed by listed Russian energy companies. In this regard, U.S energy companies such as Exxon Mobil, Chevron, Schlumberger and Halliburton to not be part of the projects which may fall within the scope of Directive 4 in their businesses with listed Russian energy companies. These directives are the legal framework of the U.S sanctions on Russia. The measures specified in these directives are key in terms of understanding the nature of the sectoral sanctions on Russia. The content of these directives will be explained in detail in following paragraphs.

7.3 Political and Economic Impacts of U.S Sanctions on Russia

We are now going to investigate two aspects of US sanctions against Russia: political and economic sanctions respectively.

Economic sanctions are natural choice for the West and the U.S to stop Russia's aggression in Ukraine. U.S chose to sanction prominent figures who have close ties to the Kremlin after the annexation of Crimea. First example is Konstantin Malofeev who subsidized separatists in eastern Ukraine in 2014. Malofeev was sanctioned by OFAC since he was deemed as a responsible who threatens the stability and territorial integrity of Eastern Ukraine (OFAC, 2014 (c)).

Not only economic impact, political impact of the sanctions may vary by country, aim and the sanctioning allies. Two U.S sanctions are connected to Russian aggression in Ukraine: first one is annexation of Crimea in February-March 2014. Second one is against the Russian Military aggression in Eastern Ukraine from July 2014. These sanctions are parallel with E.U sanctions which are regularly updated. The U.S and E.U sanctions on Russia due to annexation of Crimea since March 2014, are target-specific. U.S and E.U sanctioned all the main political perpetrators who/which are related to the incident of Crimea.

There were also companies which were doing significant business with Crimea, were sanctioned. After the annexation of Crimea, Sectoral Sanctions Identification ("SSI") list was not the only sanctions scope which target Russian aggression and policies which U.S does not like. The U.S congress initiated the act which is called as "Combating American Adversaries Through Sanctions Act" ("CAATSA") in August 2017. The initiation of this act was more U.S domestic politics related since the Congress was aware that President Trump opposed U.S sanctions on Russia and he had close relationship with Putin. This act was sort of "safety valve" in case Trump wanted to lift sanctions without a settlement in Ukraine. U.S sanctions on Russia due to annexation of Crimea were followed by the sanctions of other countries such as Canada, Australia and Norway.

Initial findings were pointing out that the sanctions would unlikely impact Russian economy but more realistic aim was to isolate Crimea politically and economically. In this regard, it could be argued that this aim has been successful since foreign trade of

Crimea decreased by %90. On the other hand, tourism revenues also decreased which impacted Crimea negatively (Aslund & Snegovaya, 2021). Aslund & Snegovaya (2021) refer to Russian economist Sergey Aleksashenko who assesses that Russian financial support to Crimea has so far cost about 5 billion USD per year (Aslund & Snegovaya, 2021).

These incidents further annoyed Putin and it led to more aggressive speeches. On April 17, 2014, he delivered speech which mostly emphasized that there are further territories which are part of Ukraine but they -in fact- belong to Russia. He claimed that Lugansk, Donetsk, Kherson, Nikolayev and Odessa are part of Ukraine but they were given to Ukraine in the 1920s by the Soviet government (Aslund & Snegovaya, 2021).

One of the most prominent impacts of economic sanctions which were applied by the U.S, is towards Russia's oil and gas extraction capabilities. Impacting Russia's one of the significant sectors is inevitable since Russia derives revenue through oil and gas industry. In this regard, U.S sanctions worsened the country's technological infrastructure by prohibiting companies from investing in high-end oil extraction projects in Russia or with Russian companies in other jurisdictions. For instance, Exxon had various investment projects with Rosneft in Russia but they were forced to withdraw from all projects which concerned Rosneft and this led to hinder Rosneft oil and gas projects.

There is a dilemma in measuring the impact of economic sanctions on Russia since launch of these sanctions coincided with a drop in oil prices. On the other hand, economic sanctions led to reduction of inflow of international funds. In this regard, financial sanctions limited Russia's ability and access to International financial markets. U.S sanctions restricted the access of Russian companies to financial markets for the transactions involving USD currency.

As per OFAC directives, financial institutions were prohibited from issuing loans and making transactions involving debt instruments (like the bonds and securities which are issued by Russia's significant banks and companies) with maturity periods exceeding certain time (maturity periods can be found in OFAC directives part in this chapter). Main objective of this measure is to ensure that the financial institutions would avoid entering into long term transactions what would generate revenue for

Russian companies. By starting from the time that the sanctions applied until the mid of 2016, number of Russian banks and companies had trouble to find fund that can be used in financial markets which forced Russian Central Bank to provide missing liquidity (Fisherman, 2020).

How U.S sanctions have been effective on Russia? Because U.S Dollar is a playmaker in International financial markets and the U.S is ruler of this currency. In this regard, no one would like to jeopardize its position since there is always the risk of being sanctioned for them as well. Aslund and Snegovaya (2021) argue that there are two important outcomes in assessment of U.S sanctions on Russia: first one is number of foreign debts throughout sanctioned period. It seems that the sanctions did not have solid effect on foreign debt because there is a consistent decrease in foreign debt of Russia between 2014 and 2018. What we can deduce from this data is that Russia could pay its debts despite the U.S sanctions.

However, there is an important point that can be overlooked: If Russia could pay its debt despite the sanctions, and did not increase its indebtedness, it means that the country abstained from the loans that could assist its economic development. For instance, other emerging economies had used more foreign credits in this period. If Russia had followed same trend like other emerging economies, indebtedness would reach to \$949 billion. At the end of 2013, Russia's foreign debt was \$729 billion whereas the debt was \$470 billion at the end of 2020 (Aslund & Snegovaya, 2021).

Second outcome is number of foreign direct investment which was reduced in sanctions years. According to the report, released by the Institute of International Finance, they point to three possible channels of macroeconomic effects caused by sanctions as follows:

- “1. *The fiscal channel, forcing the government to raise taxes or cut spending;*
2. *The balance of payments channel, forcing Russia to cut back on imports or to increase its exports in the face of lower capital inflows;*
3. *and the balance-sheet channel, forcing the government or state banks and state-owned enterprises to deleverage.”* (Institute of International Finance, 2020)

Table 19 also reflects data with changes over the years, including the period of sanctions.

Table 19 - Russia's total foreign debt (bn USD, end of year)

Table 19.

Russia's total foreign debt (bn USD, end of year)

	2013	2014	2015	2016	2017	2018	2019	2020	2014-2020 Total
Russia's total foreign debt (bn USD, end of year)	729	600	518	512	518	455	491	470	
Change in foreign debt (bn USD)		-129	-82	-6	6	-53	36	-21	-259
Global Emerging Market foreign debt (bn USD)	8375	8831	8355	8706	9654	10113	10569	10897	
Global change in Emerging Market foreign debt (%)		5.4	-5.4	4.2	10.9	4.8	4.5	3.1	30.1
What would have meant for Russia (USD bn)		769	727	758	840	880	920	949	
Total Foreign Debt omitted by Russia (bn USD)		169	209	246	322	425	429	479	
Russian Eurobond yield (% pa, average)		5.8	6.2	5.2	4.9	5.3	4.6	3.5	5.05
Putative interest cost of higher foreign debt (bn USD)		9.8	13	12.8	15.8	22.5	19.7	16.8	
Net additional foreign debt capital available (bn USD)		159	196	233	306	402	409	462	
Net additional foreign debt capital available annually (bn USD)		159	37	37	73	96	7	53	462
FDI (% of GDP)		1.07	0.5	2.55	1.81	0.53	1.88	1.39	
Russia's GDP in current USD (bn USD)		2049	1357	1281	1575	1665	1702	1464	
Additional FDI possible (average FDI as % of GDP 2008-13 $\therefore$ Actual FDIxGDP; bn USD)		15.7	40.7	6.4	19.5	42	19.9	24.3	168.5
Net additional foreign debt and FDI possible each year (bn USD)		174	81	43	93	138	27	77	633
Additional to GDP from net additional foreign debt and FDI (%)		8.5	6	3.4	5.9	8.2	1.6	5.3	5.6
Assuming half of GDP addition (bn USD)		87	41	43	54	68	14	39	346

Note. Modified From *The Impact of Western Sanctions on Russia and how they can be made even more effective*, Aslund & Snegovaya, 2021

Sanctioning Russia inevitably worried foreign investors in two different contexts: 1) Russia would have difficulty to payback existing credits and 2) investors may also face being sanctioned. On the other hand, even though Russia could pay its debts, Russian economy was stagnant in this period. In this regard, Russia's inflows of FDI have remained limited since Russia has benefited from surplus account thanks to their large oil rents (Aslund & Snegovaya, 2021).

Between 2010 and 2013 Russia's fixed investments increased by an average of 6.2 percent a year but it declined by an average of %0.5 a year during sanctioned period between 2014-2020. It should be noted that Russia is also subject to E.U sanctions and above table reflects the overall situation. Therefore, E.U sanctions may also have impact on generating of this data.

In this chapter we have explained the scope and overview of U.S sanctions on Russia and emphasized how U.S sanctions were tailored by taking into account the fact that how Russia is powerful in energy industry and how U.S sanctions may harm Russian economy via sanctions. This part will explain to what extent the U.S sanctions created an impact on Russian energy industry after Russian annexation of Crimea. Thus, there will be a series of retrieved data which are related to energy industry of Russia in sanctioned times.

The role of energy industry in Russia was previously explained and I highlighted how this industry is important to Russian economy and politics. Therefore, 5th chapter has also ample information to show the power of Russia in terms of export and production of the energy sources. Taking into consideration that the sanctions on Russian energy industry in 2014 were targeting specific areas, sanctions towards energy industry were codified in OFAC Directive 2 and Directive 4 (OFAC, 2014b).

However, it should be noted that these directives never applied "blocking" program (except the companies which were also added to SDN list apart from SSI list) which means assets/funds were not blocked in which Russian energy companies are part of the transaction after Russian annexation of Crimea. Especially, Directive 2 is the main pillar of the U.S sanctions for Russian energy industry and it specifically targets foreign borrowing capability of Russian energy companies. In this regard, Directive 2 targets Russian Energy industry by prohibiting certain transactions such as providing finance for or other dealings with in new debt with a maturity of longer than 90 days for persons identified on the SSI list under Directive 2 (for the debts issued on or after July 16, 2014 and before November 28, 2017). On the other hand, if the debt was issued on or after November 28, 2017, the maturity should not be longer than 60 days (OFAC, 2017e). Simply, this directive hampers Russian energy industry in accessing U.S financial system in booking loans with long term/maturity. Therefore, it was expecting reduce in foreign borrowing of Russian energy companies which might

impact them in terms of their cash flow which would ultimately impact the energy projects of Russian energy companies.

On the other hand, it should not be ignored that Russian energy companies could continue to enjoy borrowing from European Banks which are not obliged to comply U.S sanctions unless there is a U.S exposure in the transaction. Another relevant directive which is related to energy industry is “Directive 4”. Directive 4 is rather targeting service provision for specific Russian firms and energy projects in Russian soil. This directive is not targeting foreign debt capability of Russian energy companies. When taken into consideration that who should comply with these directives; Directive 2 is more applicable to the financial institutions (targeting financial capability of Russian energy companies) whereas Directive 4 is applicable to all entities in any industry where Sectoral Sanctions Identifications (“SSI”) listed Russian energy companies may benefit. For instance, a US company Halliburton cannot assist on exportation of oil in Russian Federation as per Directive 4.

Briefly, next part will reflect impact analysis of U.S sanctions on Russian energy industry ground on OFAC Directive 2.

7.4 The Impact of OFAC Directive 2 Sanctions on Russian Companies

First observable impact of the US sanctions on Russian energy industry was reduced of equity value of Russian energy companies, which made difficult to borrow loan from energy projects which also reduced the value of Russian ruble. However, when we look at oil production capacity of Russia in 2016, we identify a record high although Russia committed to the Organization of the Petroleum Exporting Countries (“OPEC”) to decrease its production (Coote, 2018).

Second round of US sanctions against Russian energy industry, legislated in August 2017. These sanctions are different than first round in terms of impacted parties. August 2017 legislation targets the foreign investment and loans to Russian pipelines. However, this measure determined a scope and only energy pipeline projects that were initiated on or after 2 August 2017, were included in the scope. For instance, one of the most prominent gas pipeline projects, Nord Stream 2 were exempted as per this regulation. US Sectoral Sanctions on Russian energy industry make accountable US individuals, entities and foreign branches of US incorporated entities (called as “US

person”). These parties are prohibited from dealing with new debt of longer than 90- or 60-days maturity for sanctioned energy companies (depending on Russian counterparty which involved in the transaction).

Russia has been taking some actions in order to reduce the impact of the economic sanctions since 2014. When Putin was first elected as a prime minister in 1998, oil prices dipped to about 10 USD per barrel. It was a dramatic decrease for a country which derives a significant revenue from oil. Putin started to build up financial reserve when oil prices reached above 100 USD per barrel (Coote, 2018).

Total US Dollars reserve of Russia was nearly 600 billion US Dollars in 2008. Therefore, Russia could limit the impact of the economic sanctions by funding its banks and helping them to offset the large debt of state-owned companies (Coote, 2018). Russia enjoyed using this financial reserve for state-owned energy companies like Rosneft. Initial apparent impact of the sanctions on Russian energy industry was debts denominated in US dollars which led the access of Russian energy companies to foreign borrowing reduced (Coote, 2018).

However, Russian Central Bank changed its strategy in backing Ruble and decreased the use of financial reserves. In addition to this strategy, Russia gradually continued investment for development of energy. Even though foreign borrowing is restricted (access to US financial institutions), foreign investment continued. Germany did not step in 2014 after first US sanctions were imposed but they became second to China in terms of investment made in Russian energy industry. The amount of investment made by Germany was more than 2 billion USD (Coote, 2018).

When the sanctions were imposed on Russian energy industry, the cost of energy production for Russia was relatively low. Main reason of this advantage was the value of Ruble which consistently fell. When ruble fell below the pre-sanctions level, this was turned to an advantage for the energy companies, operating in Russia. They were able to sell oil in US dollar and pay the expenditures (such as exploring and drilling) in Ruble, which was for benefit of Russian energy firms in terms of increasing the investment in the industry.

Next part will reflect the impact analysis on Directive 4. Particularly, we will mostly focus on Rosneft and Gazprom in terms of the projects which are prohibited as per Directive 4. The reason of sampling these companies is to reflect the power of the

sanctions since these 2 companies are representing bigger part of Russian energy industry by their volumes. Rosneft has 6% share in global oil production whereas Gazprom holds the largest gas reserve as a corporate in the world. Total share of Gazprom's gas reserve is approximately 17 %.

7.5 The Impact of OFAC Directive 4 Sanctions on Russian Companies

As previously discussed, Directive 4 is targeting service provision for specific Russian energy companies. In this regard, we cannot say that financial restrictions are in the scope of Directive 4. It prohibits the direct or indirect provision and particularly targeting the exportation of goods and service provision (including technology that can help for exploration and production oil in deep water and Arctic offshore (OFAC, 2017d). Thus, we observed that there are some Western multinational energy companies stopped their operations in the following fields with Russian companies (Mäe, 2016):

- *Rosneft – ExxonMobil in joint venture in the offshore project Sakhalin*
- *Rosneft – ExxonMobil JV for extracting difficult to access oil from Bazhenov formation in the Khanty-Mansi Autonomous Okrug.*
- *Rosneft–ExxonMobil JV in starting to use deposits in the Kara Sea (a test drilling in the Universitetskaja-1 field was undertaken in the summer of 2014);*
- *Gazprom Neft–Shell JV to extract oil by multi-stage hydraulic fracturing (fracking) from the Bazhenov formation in the Greater Salym field;*
- *Lukoil–Total JV to extract oil by multi-stage fracking from the Bazhenov formation in the Galyanovsk field.*

These sanctions did not stop oilfield services of these Russian energy companies since these measures did not apply to subsidiaries of western multinational energy companies.

Access to technology is another measure in US sanctions against Russian energy industry. Russian oil companies were relying on foreign technology and these measures heavily affected imported equipment. According to Mae, Russian energy companies need to buy 50% of the technological equipment and 80% of the software devices from the West (Mäe, 2016). These restrictions related to technological equipment are mostly related to offshore in the Arctic and onshore in the shale-oil

formations (Connolly, 2018). Initially, Russian energy firms experienced difficulties in their operations such as disruptions and increased costs due to these sanctions. Accessing the necessary technology was a critical disruption for ongoing projects of Russian energy firms. Most prominent projects that Russia needs technological equipment from the U.S (particularly ExxonMobil) have been disrupted.

Kara Sea, East Prinozemelskiy Blocs 1, 2 ,3 was a project which Rosneft and ExxonMobil signed a Strategic Cooperation Agreement in 2011 and a joint venture was established as part of the project. This JV consists of Rosneft with 66.7% and ExxonMobil 33.3%. According to the report published in Atlantic Council, Block 1 in Kara Sea contains 3.33 billion tons oil and 3.31 billion cubic meter gas. There is 1.82 billion tons oil and 2.7 billion cubic meter gas in Block 2. Finally, Block 3 has 1.18 billion tons oil and 8.5 billion cubic meter gas. First drill was in October 2014 and concluded with 129 million tons (which is less than %1 of the total oil reserve in these three blocks) and 392 billion cubic meter and then ExxonMobil stopped its activities in this project (Aleksashenko, 2016). This resource contains an estimated 110 billion barrels of oil resource which is more than four times Exxon's proven worldwide reserves (Korsunkaya & Reddall, 2011).

Another project which was impacted by U.S sanctions was Black Sea, Tuapse Trough License Block. Rosneft and ExxonMobil had signed a Strategic Cooperation Agreement in 2011 and they established a joint venture. 2/3 of the shares were owned by Rosneft whereas remaining shares were owned by ExxonMobil (Aleksashenko, 2016). This region has a huge resource potential however the exploration area requires some technological investments. When Rosneft first reached an agreement with Chevron and ExxonMobil in 2011, these companies would have financed the first stage of geopolitical exploration which would decrease Rosneft's existing risk and most importantly technical proficiency of these companies would have made significant contribution on the project (Rosneft, n.d.). After the US sanctions were imposed, ExxonMobil sought waiver from U.S Treasury Department however it was rejected in 2017 (Krauss, 2017). Total investment of ExxonMobil for this project was 1 Billion USD whereas 2.2 Billion USD was committed by Rosneft. This trough is estimated to have 7.2 billion barrels of oil equivalent (Oliphant, 2011) which worth

approximately 770 billion USD based on average crude oil price in 2011. (110 USD per barrel)

U.S Treasury also imposed sanctions on Okhotsk Sea, Sakhalin-3 Project which is combined resources of oil and gas. The United States sanctioned this project (limited to oil part) by indicating specific Russian energy companies such as Gazprom, Gazprom Neft, Lukoil, Surgutneftgas and Rosneft. According to the measure, U.S prohibits US persons for exportation of goods, services, or technology in support of exploration or production for Russian deepwater, Arctic offshore, or shale projects that have the potential to produce oil (Offshore, 2015a).

OFAC license is required for export, re-exports or transfers oil from this oil field. There is also another project in Okhotsk Sea named Sakhalin-1 project was also listed as sanctioned. U.S energy company ExxonMobil has 30% and Rosneft has 20%. Remaining 50% belongs to SODECO (30%) and India's state-owned company ONGC Videsh (20%). Sakhalin 1 is also oil and gas development project which consists of three offshore fields named as Chayvo, Odoptu, and Arkutun-Dagi. The Sakhalin 1 project is estimated to have approximately 2.3 billion barrels of oil and 484.2 billion cubic meter (17.1 trillion cubic feet) (NS Energy, n.d.).

Apart from these impediments, oilfield services have key role in providing technology for Russian energy sector in order to boost oil production. Russia benefits from both foreign and local companies in oilfield services such as drilling, oil processing via catalysts and geological explorations. Schlumberger and Halliburton account for 10% and 4% (respectively) of the Russian market (Coote, 2018).

Russia has also local companies such as Rosneft, Argos, Eurasia Drilling Company, Tagras and Surgutneftgas which serve in oilfield sector. Local firms represent more than 70% of the drilling market in Russia according to Deloitte study which Coote (2018) referred to. These companies import equipment and technology which shows Russia's priorities and help them to extract oil, according to the analysis published by Coote (2018). Rosneft's use of horizontal drilling increased 41% in 2016. Therefore, Rosneft managed to keep importing necessary equipment for horizontal drilling which enables Russia to produce more oil despite the sanctions. The U.S Executive Order that stipulates how the sanctions will be applied to Russian Energy Industry

specifically refers to (for instance in Directive 4) various locations such as Arctic offshore or shale projects that have potential to produce oil.

Most importantly, these sanctions are applicable to U.S persons (US individuals, companies which are incorporated in U.S), not other parties out of US jurisdiction. The limitation of “U.S person” gave room to Russia to find different equipment and technology suppliers. Coote (2018) referred to another Deloitte’s study and emphasized how oilfield services developed despite the decrease in oil prices alongside the sanctions. Oil production drilling footage in 2016 surpassed 2015 by 12% although oil prices decreased by 16% in 2016. Not only production drilling also exploration side of oil services continued to increase.

Exploration drilling increased by 20% in 2016. When we look at the outcome of Rosneft which is one of the largest independent gas producers in Russia and also largest refining company in Russia (Rosneft, n.d. (b)), they increased its production drilling footage by 36% and exploration drilling by 35% compared with 2015.

European companies took advantage of being exempted from US sanctions as long as any US incorporated firm involved the transaction/project. For instance, five European energy giants – Royal Dutch Shell, Uniper, Wintershall, Engie and Austria’s OMV decided to finance Russia’s Nord Stream 2 project which plans to export gas from Russia through Baltic Sea to Germany. The sanctions did not prohibit participation of non-us persons to new initiatives of Russia however a country under western sanctions may lead to hesitancy of foreign investors since there was already measures for foreign debts. Even in these circumstances, Nord Stream could attract western investors.

7.6 Oil and Gas Production and Export of Russian Energy Companies

Russia could continue to increase its oil production even after the sanctions were imposed. When we look at the period between 2008 and 2016 as indicated in Bud Coote’s research, Russian oil production increased from 9.95 million barrels per day to 11.23 million barrels (Coote, 2018). It should be also taken into account the fact that oil prices were quite lower. Particularly, Russia could achieve growth in 2016; it grew by nearly 250,000 barrel per day which was more than half of world oil production growth (Coote, 2018).

Russia had up and downs by starting the gas dispute with Ukraine in 2009. The European Union was more eager to achieve considerable goals. For instance, European Union focused on implemented Third Energy Package laws in order to improve natural gas supply security. The main objective was to integrate the gas networks in Central and Southern Europe.

Russia could stabilize its oil production after 2016 as well. Russia's oil production is generally at 11.3 million barrels per day between 2016 and 2020 (See Table 20). There is only a minimal decrease in 2020: they produced 10.6 million barrel per day.

Table 20 - Russia's Oil Production (includes crude oil, shale oil, oil sands, condensate)

Table 20.

Title : Russia's oil production (includes crude oil, shale oil, oil sands, condensate)

	Year										
Oil Production (thousand barrels daily)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	10379	10533	10656	10807	10927	11087	11342	11374	11562	11679	10667

Note. Modified from *Statistical Review of World Energy*, BP, 2021

Russia could also continue to increase its oil sales to importer countries (See Table 21). Before sanctions, there is a consistent increase between 2010 and 2013. In 2014, there is a slight decrease compared to 2013. However, oil export of Russia in first year of the sanctions was more than any year before the sanctions. In 2015, Russia exported 8.3 million barrel This increase continued until 2020. If sanctions were a factor that could impact the sales, it was not enough powerful to decrease the oil export numbers of Russia in an environment even oil prices dramatically fall.

Table 21 - Russia's oil export

Table 21.

Title : Russia's oil export

	Year										
Oil: Trade movements (Export - thousands barrels daily)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	7397	7448	7457	7948	7792	8313	8814	8992	8117	8380	7433

Note. Modified from *Statistical Review of World Energy*, BP, 2021

Russia could also keep its oil reserve in a certain level. Before the sanctions, Russia's oil reserve is approximately 105.5 billion barrels between 2010 and 2013. First two years of the sanctions had slight decrease: 2014 had approximately 2% decline previous to 2013 and 2015 showed 1% decline compared to 2014. However, 2016 and

following years showed always rising tendency. Details can be found in the Table 22 below.

Table 22 - Russia's Proved Oil Reserve

Table 22.

Title: Russia's Proved Oil Reserve

	Year										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Oil: Proved reserves (thousand million barrels)	105,8	105,7	105,5	105,0	103,2	102,4	106,3	106,6	107,2	107,8	107,8

Note. Modified from Statistical Review of World Energy, BP, 2021

There is a similar trend for Russia's natural gas between 2010 and 2020 (see Table 23). Before the sanctions, proved natural gas reserve of Russia is 34.5 in average (between 2010 and 2014). This reserve continued to increase by starting from the year that the sanctions were imposed. In 2014, proved natural gas of Russia 35 trillion cubic meters. Natural reserves increased approximately 8% in 2017 and other years showed similar tendency without any decline.

Table 23 - Russia's Proved Natural Gas Reserve

Table 23.

Title : Russia's Proved Natural Gas Reserve

	Year										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Natural Gas: Proved reserves (trillion cubic meters)	34,1	34,5	34,6	34,9	35,0	35,0	34,8	37,9	37,6	37,6	37,4

Note. Modified from Statistical Review of World Energy, BP, 2021

When we look at Russia's natural gas production in a 10-year period, average gas production is calculated as 607,9 trillion cubic meters between 2010 and 2014 (see Table 24). When sanctions were imposed in 2014, there is 3.5% decline in oil production compared to 2013 numbers. Numbers of Russia's natural gas production in 2015 and 2016 are similar to each other. By starting from 2016, there is a significant increasing tendency in gas production of Russia. Russia produced 679 billion cubic meter in 2019 which is the highest production number between 2010 and 2020.

Table 24 - Russia's Natural Gas Production**Table 24.***Title: Russia's Natural Gas Production*

	Year										
Natural Gas: Production (billion cubic meters)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	598,4	616,8	601,9	614,5	591,2	584,4	589,3	635,6	669,1	679,0	638,5

Note. Modified from Statistical Review of World Energy, BP, 2021

Briefly, U.S sanctions towards Russian energy industry after the annexation of Crimea, was targeting specific tools and instruments of Russian energy companies and it can be argued that these sanctions were not intended to have short term impact which allows room for Russia in terms of coping with U.S sanctions. Since third parties were not held accountable in complying these sanctions, Russia could also enjoy cooperate with other countries which are also mostly dependent on Russian energy, particularly in oil and gas sector.

CONCLUSION

Although the case study of this thesis is towards the sanctions on energy industry of Russia, in conclusion, explaining other aspects of U.S sanctions on Russia would be beneficial in terms of understanding the framework of these sanctions.

Sanctions imposed on Russia are tailored. Before imposing U.S sanctions, OFAC performed investigation regarding feasibility of these sanctions to understand whether it could create economic disturbances for the U.S and allies. Therefore, Russia was not fully isolated from international banking system unlike Iran. Payments of Russian government and state-owned enterprises through financial institutions continued.

Business relationship was not prohibited with Russian state-owned enterprises. Rather, U.S ultimately aimed restricting Russia's ability to international financial markets such as preventing generating income through debt instruments. Therefore, U.S would avert passive income for Russia. This measure is mostly targeting Russian banks and also some other Russian companies which issue bond and security for the investors.

On the other hand, one of OFAC directives (directive 4) is directly targeting Russian energy companies. Although this directive excludes financial services and does not directly relate financial institutions, the scope is directly related to non-Russian energy companies which currently do business with Russian energy companies or plan to do business. Therefore, Russia would deprive of potential investments in their projects.

There are observable consequences of U.S sanctions on Russia

- Firstly, Russia did not leave Crimea which was the reason of the sanctions, basically. Russia did not change its stance towards Crimea such as softening situation.
- Oil and gas projects that involved U.S companies were disrupted.
- Since maturity of the loans for Russian energy companies (in Directive 2) was shortened (60 or 90 days), these firms had difficulties in their cash flow.
- Russia was able to pay its debts but it also means that Russia couldn't benefit from foreign credits at the same time which is another reason of not increasing the ratio of indebtedness.

- Foreign direct investment has remained limited. Foreign investors abstained from investing due to risk of being sanctioned.
- Economy of Russia has barely grown due to imposed sanctions. GDP of Russia is fluctuating between 2014-2020. However, there is a dramatic decrease in 2015 (Aslund & Snegovaya, 2021).
- Particularly, Germany is reluctant to take against Russia. They were currently in a process of Russian Gas pipeline from Russia to Germany through the Baltic Sea before the explosion of Nord Stream.
- As of May 2023, Putin is still aggressive in Ukraine crisis, aggression continues in various parts of Ukraine this time. Sanctions are not enough coercive to change (and even soften) his policies/stance.

Sectoral sanctions imposed on Russia were mainly targeting finance, national defense and energy industries. The scope of sanctions was not intended to have mid-term or immediate impact on Russian energy industry. For instance, when we look at Directive 4, the characteristic of these measures is more applicable to be effective in the long-term. Because this directive targeted exploring and drilling oil and gas from arctic and deep offshore regions whose impact can be materialized in the long term.

It should be also noted that, sanctions were not only a negative development for Russia in 2014: the oil market also faced oversupply and overdemand which led to a decrease in oil prices in 2014. Barrel of oil decreased to 60 USD in December 2014 whereas it was 115 USD in June 2014. 1 USD fall in the oil price per barrel leads to cutting federal tax revenue by about 1.4 billion USD (Altıparmak et al., 2023). Even in these circumstances, Russia's oil export and production continued to increase. ATSW also argued that Russia continued to take action for its existing investments when oil prices declined. In this regard, most important factor was to cooperate with alternative importers of Russian oil.

In 2012, Russia announced a new economic and foreign policy plan which was involving China and India. Both China and India also needed new markets for their industrial production (Altıparmak et al., 2023). Trade relations between China and Russia already started to increase by mid-2000s but they developed the economic relations in 2013-2014 via new deals. When the sanctions were imposed on Russia in

2014, Russia was already assessing China as an opportunity to come over these sanctions. When we look at the share of Russian oil export between 2000-2020, China is the only country which showed increasing tendency by starting from 2014 when the sanctions were imposed. In 2014, 16% of Russian oil was imported by China and it continued to significantly increase in coming years. 35% of Russian oil was exported to China in 2020. In the same period, some European countries such as Germany, Italy, Netherlands and Poland exported Russian oil in similar numbers which vary from 6% to 10% (Altıparmak et al., 2023).

Briefly, the Directive 2 aimed to create impact for foreign borrowing capability of Russian energy firms which was intended to have impact on financing of energy projects in arctic and offshore. However, it could not impact Russia as it was expected. Because, Russia pursued two strategies consecutively: 1) Using financial reserves in the central bank 2) Attracting the foreign investment except US firms. Hence, as it was explained in the 7th chapter, Russia managed to attract huge investment from Germany for its projects. They also continued to trade with China and India. In this regard, these sanctions were only “primary sanctions” that concern only US persons. Briefly, Russia was capable not to decrease export and production numbers in oil and gas.

Another outcome of the efficiency of sectoral sanctions on Russian energy industry is the discussion about “secondary sanctions” (extended version of primary sanctions which was explained in the above paragraph) which prohibits third party individuals and entities (who are out of the coercer’s jurisdiction) from trading with sanctioned parties. Van de Graaf & Colgan (2016) argue that sectoral sanctions on Russia did not create impact as the ones imposed by U.S on Iran.

Secondary sanctions are effective instrument for coercer state if it has ability to influence other states by using some tools. For instance, the U.S is quite influential country in terms of imposing secondary sanctions since it is the regulator of US Dollar and US financial institutions are acting as correspondent banks for all USD transaction across the world. If US prohibits any country, any individual or any entities from trading in USD currency – namely if these parties are sanctioned by the U.S-, US financial institutions do not execute the transactions of these parties. Thus, US may impose secondary sanctions on sanctioned party which discourage the third

parties from trading with the sanctioned these individuals/entities/countries. Otherwise, there is only primary sanctions which hold accountable only the persons of coercer state.

Why US preferred to use only primary sanctions for these sectoral sanctions on Russia? As discussed in the chapter “The Discourse of Energy Interdependence Through Russia Case”, Europe is heavily dependent on Russian natural gas which restricts the maneuvering capability of the United States in terms of secondary sanctions. Because most of the European countries are ally with the U.S under the umbrella of NATO and the U.S did not want to force its allies since there is no tangible alternative for natural gas import. Further, this approach may irritate the allies which might end up with the worsening of the relations between U.S and European countries. My deduction is that if sectoral sanctions are imposed on an industry which the allies of coercer are dependent on, these sanctions don’t seem sustainable foreign policy tool.

There is also another discussion point for the sectoral sanctions imposed on Russian energy industry: the U.S limited the measures with foreign borrowing and restrictions on technology and import equipment for Russian oil and gas projects. It should be noted that, these sectoral sanctions did not impose “blocking program”⁴ which aim to block the funds of certain Russian energy companies in US financial institutions. This flexibility also provided a comfort for Russia to use their funds in US Dollars in American financial institutions.

Effective sanctions programs generally aim to create an impact in short term. Because the ultimate aim of the sanctions is to change the behavior of the adversary which the coercer state is not happy with. If the measures in the sanctions program are not appropriate to create an impact in the short term, the target country may find elbow room to sustain its operations. It would be worthwhile to discuss whether the U.S. was already aware of the potential impacts of these sanctions before they initiated. As discussed earlier, the U.S was aware that how much its allies are dependent on Russian natural gas especially. Imposing secondary sanctions could have created

⁴ Only exception is Nord Stream 2 and TurkStream natural gas pipeline projects which US imposed secondary sanctions and applied blocking program under CAATSA sanctions (U.S. Department of State, n.d.(d)). Also, individuals and firms which were designated as “SDN” (blocking program of US) due to its actions related to Crimea, are not part of SSI list. Property and interest of persons identified only in SSI list is not blocked (OFAC, 2017e).

more impact on Russia but secondary sanctions would mean the restriction of the allies which would not have been reasonable in terms of the prosperity of the allies. Briefly, it could be argued that the U.S. had to apply some measures against Russia under “the Sectoral Sanctions Identification” program of OFAC in response to Russia’s annexation of Crimea but this response was designed by taking into account the position of US allies in energy demand matters. Also, cash on deposit of Russian state-owned companies (including Russian energy firms) in U.S financial institutions, might be another factor in design of these sanctions. As of June 2018, Russia’s total USD reserves were approximately 458 billion USD and 10% of this amount was being kept in U.S financial institutions (Bloomberg, 2019). Blocking of these funds (rather than only restrictions on foreign borrowing) could have impacted U.S financial institutions in terms of deposit volume.

Last outcome of this study is that if target state can cooperate with another state which is rival of the coercer, sanctions may be less harmful since target state and rival of the coercer may initiate or develop their trade relations to overcome the sanctions which are imposed by the coercer state.

Briefly, based on the findings in this study, it can be concluded that US sectoral sanctions imposed on Russian energy industry did not create a significant impact for Russia as they managed to sustain their energy operations. Moreover, although the ultimate of the sanctions is to change the behavior of target state, Russia did not change its stance about Crimea and further they continued their aggression in Ukraine in 2022 as well. In this regard, it can be concluded that the economic sanctions can be successful and create significant impact as long as the measures are designed to create immediate impact on the target state. Briefly, the scope of the sanctions needs to be comprehensive to create impact, rather than limited scope as the U.S did in Russia sanctions.

Results of this study reveal two determinations in regards to the effectiveness of economic sanctions and for research questions as well:

1. The effectiveness of economic sanctions depends on capability difference between sanctioning and target country. It is likely that economic sanctions can be effective if the sanctioning country has capability to destroy the target country economically and target country does not have the capability to withstand these challenges.

2. However, above mentioned conditions are not solely sufficient to make sanctions efficient. The sanctions can be effective, depending on 1) to what extent sanctioning country would be eager to convert its capabilities to power through sanctions and 2) to what extent the target country would be eager to convert its capabilities to power in order to cope with the challenges.

If the sanctioning country would be eager to convert its capabilities to coercive power and the target country is lacking in capabilities to cope with these challenges or reluctant to convert its capability to power, the sanctions can be effective. On the other hand, if sanctioning country would be reluctant to fully convert its capabilities to power and the target country has the capabilities to resist the sanctions, the sanctions may not work. The outcome of this study reveals the last scenario. The U.S abstained from imposing blocking program (except the parties which are listed in SDN list as well) and secondary sanctions for the energy sector of Russia in 2014 Sectoral Sanctions program (except the prohibition for investments on energy export pipelines initiated on or after 2 August 2017 under CAATSA law).

There are some limitations for this thesis. Firstly, the term “energy” specifically refers to oil and natural gas in this thesis since these are the most lucrative revenue item for Russia’s federal budget (IEA, n.d.(c)). The findings of this study for the impact of economic sanctions cover only the case study examined in this thesis. “Russian energy companies” in this thesis are limited to ones which are listed in “Sectoral Sanctions Identification” (“SSI”) Directive 2 and 4 by OFAC. Last limitation is the US sanctions imposed in 2022 after Russian invasion of Ukraine. When this thesis was started to be written in 2020, Russia-Ukraine war had not begun yet. Thus, 2022 sanctions are not included since the outcome of 2022 sanctions did not occur yet.

For future studies; it is not possible to distinguish Russia’s total foreign debt capability versus Russian energy companies’ foreign debt capability since no debt data for Russian energy companies can be found in open sources as most of them are state owned companies and not being quoted in major western stock exchanges. Anyone who would like to make research on the impact of U.S sanctions on Russian energy industry, may also focus on foreign debt capability of Russian energy companies during the sanctions.

However, it should be noted that these companies are state owned companies and their annual reports do not reflect their foreign debt ratio in the U.S. financial institutions. Obtaining this data would provide more insight on the efficiency of OFAC Directive 2 measures.



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