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The Impact of Oil Production and Consumption on the Balance of Power

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Doctoral Dissertation

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Abstract

My Ph.D. research project aims to understand the relationship between oil production and oil consumption on the one hand, and balance of power (BoP) on the other. The dissertation intends to examine the period from 1918 until the 2020 Coronavirus pandemic. The extent of the examined timeframe calls for periodization. I research the impact of oil on the balance of power and foreign policy in the different macro-periods of the last century. I also conduct a deep examination of the balance of power as the dependent variable in my research. Several case studies including the United States of America, Japan and Russia provide the qualitative testing of the dissertation. A comprehensive Ph.D. dissertation that integrates the relevant literature with the effect of oil on foreign policy and provides a systemic overview of the topic constitutes the novelty of the project.

1. Introduction

In the beginning of the 20th century the conversion from coal to oil as the major source of energy made tremendous amounts of change all around the globe. Oil transformed the way of life, and it became one of the most crucial resource material for militaries as well. For decades, multiple threats emerged all around the globe from oil rich states and regions.

The oil revenues fuel the "newest adversaries of the West". The Soviet Union financed its military build-up; Iraq funded the invasion of Kuwait. Libya and Iran sponsored terrorist groups and the Islamic State maintained itself with the money coming from selling this "black gold". Studying the effects of oil on the international system has always been helpful after petroleum was not only used to light up household lamps. Multiple oil crises showed us that this resource is so needed to today's economy that those who have control over the location of the reserves not only have economic power, but political power as well. The price of oil can easily shape the fate of nations, and bring them prosperity or recession as well.

In my dissertation, I examine how and to what extent influences one power's place in the international system if it has natural resources like oil. My research identifies the political economic aspect of one state's soft and hard power in the past one hundred years. The research shows the relationship between oil production and consumption on the one hand, and balance of power (BoP) on the other.

Through quantitative data and case studies, I will be able to answer an important contemporary question of today's international relations. Scholars should revisit the predictions that were made in the past connected to oil. My research is a needed material for today's international relations (IR) scholars since contemporary events have made a tremendous amount of impact on the future of oil and the balance of power.

2. Relevance of the Research

Studying the effects of oil on the international system has been always helpful since the commercialization of petroleum. A little more than 40 years ago, U.S. President Jimmy Carter voiced his concern over the security of the Persian Gulf. The US President announced that the United States, a country that located in the Western Hemisphere would defend the Middle East from a foreign power that would like to gain control of the region.

Numerous noble causes would justify such seemingly altruistic mission. For example fighting terrorism, elevating people from poverty and helping to convert former colonies to democracies, preventing nuclear proliferation and so on. However, the main goal of the United States was to ensure that one of the most oil rich regions in the world remain a place where the country could easily get its hands on the precious resource. This policy was clearly manifested in the so-called Carter doctrine, which designates the Persian Gulf as a vital national interest for the United States. (Davis [2017])

In the time of Jimmy Carter and his successor Ronald Reagan, the most important foe was the Soviet Union, and its seemingly more and more threatening presence in the region. The Soviet's war in Afghanistan and the Iranian revolution made the United States and the Western block eager to keep an eye on the Middle East. However, the USA took part in too many conflicts connected to the region for example in Iraq and Afghanistan, and their costs has slowly, but surely made the American taxpayers question the necessity of their military involvement. (Glaser, Kelanic [2017])

The European powers and the Ottoman Empire lost their power in the region during the 20th century; we can see that the USA's involvement is fading in the region in the 21st as well. This phenomenon alone brings the question of oil and its effects on the balance of power into the centre of the international relations. The relevance of the question is not only justified by these international and historical events alone.

The question of resource scarcity and energy is on the table as well. As soon as oil was used to fuel the economy, a race started to form in order to meet the demand. We know that fossil fuels are non-renewable and there will be a time when the cost of their production will be so high that it will be no longer economically justifiable to use them. Eventually the world will run out of the easily accessible oil resources and it will have a tremendous consequence on the international relations as we know today.

Multiple oil crises showed us that this resource is so needed to today's economy that those who have control over the location of the reserves not only have economic power, but political power as well. The price of oil can bring nations prosperity or recession as well. It is true on multiple levels not just on the economical one. Michael Ross coined the term "oil curse" which can ruin societies, or at least have a significantly worse effect on them, than not having this resource. After the 1970's, oil states are 50% more likely to be under authoritarian regime and 400% less likely to become democracies than their counterparts are. The chance of a civil war within the state is increased if it has oil twice as much compared to those that does not have this kind of "blessing". The reason for that is the revenues from oil end up in the pockets of the ruling regimes or local warlords that can finance their ruthless oppression. (Ross [2011]) The Coronavirus pandemic, the Russian-Ukrainian conflict and economic and political measures by Kyiv blocking the transit of pipeline crude sold by Lukoil, Russia's largest private oil firm to Central Europe mainly to Hungary and Slovakia show the relevance of the topic even in 2024. (Martyniuk [2024])

As the aforementioned examples show, research connected to oil and foreign affairs is very important for international relations scholars. That is why I thought it is a good idea, to conduct research connected to the question. My research examines *how states can exercise power through oil. And what kind of balancing strategies they use to maintain or improve their power.*

The novelty of my research is further enhanced by the international relations theory it applies to try to come up with answers. Neoclassical realist theory is a relatively new approach to international relations and it has few studies and books compared to other older versions of international relations theory. The neoclassical realist approach incorporates both systemic

stimuli (such as neorealism) when analysing a policy response, but it incorporates other variables such as leader perception, strategic culture, etc. as well in order to have a better explanatory power. The case of oil and balance of power is more optimal if it involves unit level variables into the research as well, because the systemic forces cannot solely explain the policy responses of states and their international outcomes. As all realist theories, neoclassical realism also considers international relations and politics as a struggle for influence and power where the resources are finite in a world of uncertainty about each state's intentions and capabilities. (Frankel [1996] pp. ix-xx)

Furthermore neoclassical realist theories' assume that "*every state's external behaviour is shaped first and foremost by its power and position in the international system and, specifically, by its relative share of material capabilities.* (Ripsman, Taliaferro, Lobell [2016] p. 56)" In addition to clarify and extend the logic of neorealist propositions, neoclassical realism uses case studies as a means to test hypotheses and answer questions about state behaviour and foreign policy. (Schweller [2003] p. 317) Examining foreign policy decision making through case studies is a great way to utilize neoclassical realism, because it can shed light on factors (intervening variables) that structural theories cannot do. Neoclassical realism uses the strong structural explanatory power of realism and enhances the theory with the integration of domestic factors to produce a more accurate model of foreign policy. (Beqa [2017] p. 323) Neoclassical realism compared to constructivist or liberal analysis of foreign policy demonstrated theoretical and empirical tenacity. (Foulon [2015]) Therefore, neoclassical realism is a great theoretical tool to use in the dissertation where I examine foreign policy decision making in relation to relative power shifts with a case study method.

With a long-term study that examines the past one hundred years the impact of oil production and consumption on the balance of power is in the centre of my research's attention. I hope that my research will be a useful new study connected to the field.

The majority of the international relations experts have not anticipated the accumulative effects of climate change, the outcome of the 2016 U.S. Presidential election. the ever changing nature of Middle Eastern politics (for example the armed conflicts in Syria and Iraq, the effects of the Iran nuclear deal etc.) and the war in Ukraine. Furthermore, new

technologies connected to the field of energy make place for my research. These recent unforeseeable events have made a major impact on the future of this question. The dissertation aims to shed light on the balancing strategies states choose, therefore it can be a good bases for analysing future events and understanding international relations better.

3. Structure and Methodology

There are chapters in my dissertation offering overview discussions of balance of power in the international relations literature. How it is interpreted, measured and what criticisms exist of the dominant interpretations. The aforementioned theoretical background helps me understand the balance of power theory and I am introducing oil into the picture when states devise their responses to certain changes in the balance of power.

It means that I have to examine the ways in which a relationship between oil and BoP exist. In order to understand the relationship in terms of possible connections and causal mechanism the following questions need to be answered:

1. Net oil related power potential. How does one's position in terms of whether one is a net importer of crude oil and/or refined oil play into the balance of power?

The first question is important to determine whether oil plays a different role for a power that is a net importer or not. If the answer to this question is that it does not play any role, then the importance of oil on international politics diminishes greatly, since the relevance of a state's relative power is not dependent on this resource. In my dissertation, I identify the position of the relevant Great Powers in terms of their control over oil sources. This position greatly influences their relative power, therefore their place in the international system.

2. Oil and Warfare. How does oil affect military capabilities? How does it affect the military and grand strategies?

Oil affects military capabilities and grand strategies according to my dissertation. Throughout the case studies and in Chapter 7.2 as well, I explain in detail how oil, warfare and grand strategies are interlinked both for Great Powers and for regional petrostates alike.

3. Access to oil and the balance of power. How does vulnerability of access play a role? How do own reserves play a role?

The core of the dissertation is the connection between balance of power and oil. The access to this vital resource, direct or indirect control methods are critical to understand in order to properly explain the balancing strategies of Great Powers. Chapter 7.3 explains how balance of power and oil connects to one another.

4. The resource weapon. How does it work?

Oil can be used as fuel for the militaries and the economy. This characteristic has been changing throughout the last one hundred years. However, until oil is an important and quickly irreplaceable fuel for both the military and the economy, its importance as a potential weapon cannot be ignored. I show several examples of how oil was used as a political weapon in the dissertation and whether its usage was effective or not. The reasons why and how these attempts were successful or unsuccessful are explained in the paper.

5. Can oil be used to build an empire and/or buy allies?

Oil is not just a stick, but oil is a carrot as well. The alliance and empire building methods of several states involved oil as a factor to lure and keep other states around their orbit. Having direct or indirect control over oil sources influence the relative power of a state. According to neoclassical realism and balance of power theory, states aim to maintain and/or improve their position in the international system. Therefore, gaining or retaining oil producers are part of their relative power maximizing efforts.

6. The question of dependence. How important is the diversification of suppliers and how effectively can a great power diversify its oil suppliers?

Reducing dependence through diversification of suppliers is an effort by states to enhance their relative power by reducing the chance of supply disruption. The diversification efforts manifest themselves in the international field and is a constant game between Great Powers to improve and/or maintain their position in relation to oil producers. Effective diversification

means a greater deal of relative freedom in terms of foreign policy decisions, which increases the relative power of a state.

The main hypotheses of this research is as follows:

H1. Every Great Power had access to the majority of the proved oil reserves since the Industrial Revolution.

H2. Ensuring access to crude oil influences the foreign policy of Great Powers. The less oil resource one state has control over, the more its foreign policy is focused on it.

H3. Great Powers try to maintain and/or improve their place in the international system through balancing strategies. When Great Powers cannot maintain access to oil supplies in order to keep their power projection capabilities at a similar level as other Great Powers, they lose their status of being one.

Related to the dependent variable the balance of power is subjected to different interpretations. The scope of the research is the last century so I have to answer many questions connected to the mechanism of BoP in general and in different time periods as well. Such as which states were the dominant powers, the polarity of the period and how these and other factors are related to oil.

My research has a long-term scope where the international system cannot be characterized by a single overarching period. The century after 1918 witnessed tremendous and fundamental changes in the distribution of power. Therefore, the research aims to describe the different systems that persisted during the last century. The division of the last one hundred years to macro periods assists in describing each historical period.[1]

[1] The examined period ends with the Coronavirus pandemic. Further research has to be carried out to show the effects of the pandemic and the Russian-Ukrainian conflict on the balance of power and oil.

The macro-periods that I divided my research are distinct from each other by their characteristics:[2]

1. **1918-1945**: The period between the end of the First World War and the end of the Second World War. This timeframe is very much different from the post 1945 world and shows the early conquest of oil.
2. **1945-1973**: After the Second World War the balance of power shifted tremendously and the era of the Cold War deserves its own macro-period in my research. This is the era of cheap oil.
3. **1973-1998**: The end of cheap oil, the fall of the Soviet Union and the Bipolar World signals a new chapter in the international relations. Furthermore, this is the era of the decline of conventional oil sources in the USA.
4. **1998-Present**: The post 9/11 world and the increasing relevance of non-state actors in the international relations. The Middle East, a significant oil-producing region moves to the forefront of attention. The introduction of shale oil.

After the evaluation of the different periods, I will connect the question of oil to the research in order to make a meaningful contribution to the mechanisms of the balance of power.

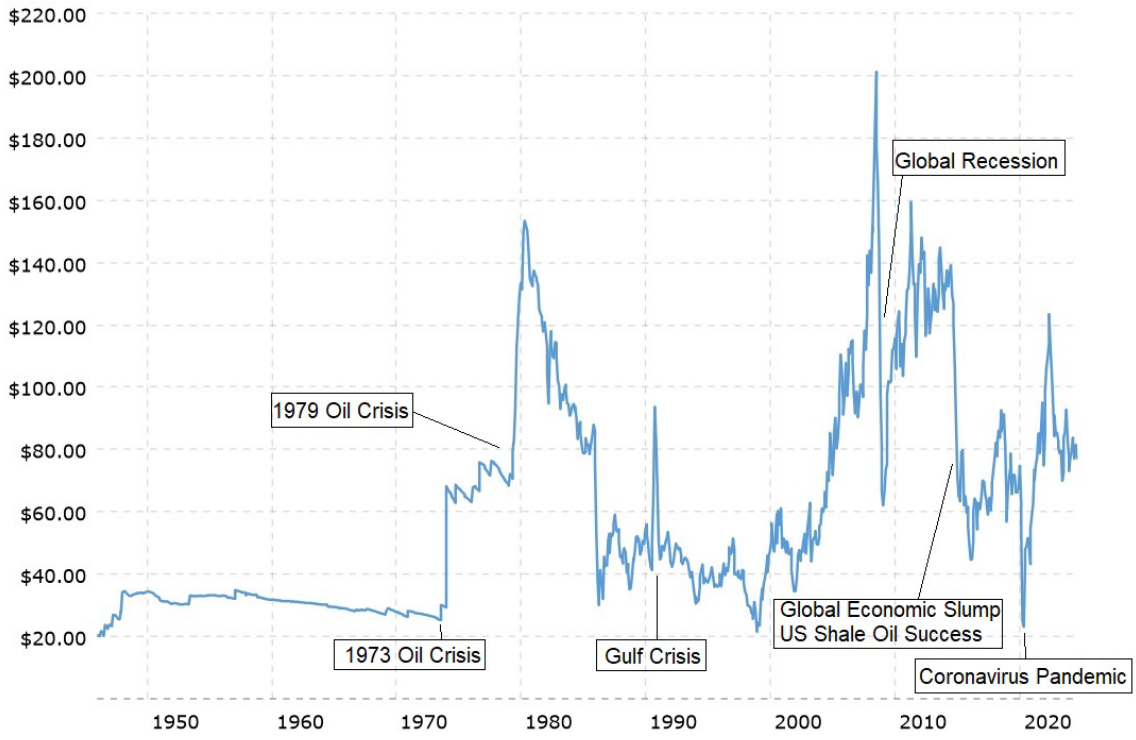
3.1. Quantitative Data

It is quite easy to get data regarding the oil production capabilities of the countries. Historical examples help me to see how states can exercise power through this tool. The quantitative measurement of changes in oil production, consumption, known reserves and projections of anticipated trends takes an important part in the research. I dedicated Chapter 9.1 to the

[2] See Chapter 10 for more detail.

difficulties of getting accurate numbers on proven reserves. The quantitative data will be the indicator whether the different balancing strategies chosen by the states can be supported with it or not. In order to carry out the research, I would like to use statistical data connected to the consumption and production of oil. In my research, I try to focus on the last one hundred years, which is rich with examples like the oil crises in the 1970s. I believe that long scope of the study is important to eliminate outlier cases and odd one outs. It is also important to examine the shift of the impact of oil on the international system, because by examining this phenomenon's long term effect further research can make a more stable projection towards the future. The price of oil can be easily attached to certain historical events as Figure 1. shows.

Figure 1. **Inflation Adjusted Oil Price and Global Events**



Source: Edition of the author based on Macrotrends.net [2024]a.

3.2. Case Studies

As I mentioned above, I would use statistical data during my research, and I would like to conduct comparative case studies as well. The selection criteria for my dissertation has to deal with several limitations. The scope of the paper is global; therefore a huge selection of states has to be narrowed down. I decided that three case studies should be added to the dissertation in order to sufficiently prove or disprove my hypotheses. The three case studies has to meet the following criteria:

- Great Power in the 20th century
- Different level of access to oil resources compared to the other two case studies
- Geographical diversity among the case studies for global scope
- Different type of political systems

The three states that best fit the selection criteria are USA, USSR/Russia and Japan. All three achieved Great Power status in the examined period. The USA is an American, Russia is an European/Asian and Japan is an Asian Great Power therefore sufficiently covering the continents and the global scope criteria of the research. There were no Great Powers based in Africa, Australia (or Antarctica) in the examined period. The three selected states has to differ in some aspects in order to justify their inclusion. Their level of access to oil resources are different, their economies are diverse with substantial oil reserves (USA), diverse without oil reserves (Japan) and mixed economy with oil reserves (Russia). In order to make the research more thorough the different type of political systems has to be taken into account. It is especially important in my research where I apply the neoclassical realism as the main theoretical background. Neoclassical realism deals not only with systemic forces, but with unit level variables as well. Such as leader perception, strategic culture, state-society relations and domestic institutions. The three states' internal structure is very different, the USA is a presidential democracy, Japan is a constitutional monarchy, the USSR was a socialist country

and later Russia became an authoritarian dictatorship.[3] These comparative case studies can highlight the differences between the countries and could give a much clearer picture regarding the outcome of the research.

[3] China as a case study would have been an interesting state to examine, especially taken into account its economic importance today. However, it was rejected because Japan, Russia and the USA better fit the selection criteria.

4. The Balance of Power[4]

One of the most important aspect of the dissertation is to understand the balance of power (BoP) theory. Although political science tried to understand the mechanisms and processes of balance of power for more than half a millennium, the constantly changing international environment demands more answers in order to understand foreign affairs.

The roots of the balance of power theory can be traced back to the antiquity. (Kaufman, Little, Wohlforth [2007]) The Greek city-states and their alliances show clear evidence that this concept had relevance in international relations for quite some time. The constantly fluctuating relative power of empires and various states each trying to maintain or improve their position and keep or disturb the status quo leads to the phenomenon called the balance of power. The term is used with different meaning:

- A policy aimed at a certain state of affairs
- An actual state of affairs
- An approximately equal distribution of power
- Any distribution of power. (Morgenthau, Thompson [2006] p. 179)

The balance of power is commonly used as a metaphor and different definitions were given to it throughout the centuries. Sheehan made a survey in 1996 where he tried to examine the concept in the last three hundred years. The first definition that he found from 1741 was mainly aimed at the European state of affairs:

[4] Earlier version of Chapter 4 and 5 was published by Mezei, A. [2020]: *Balance of Power Theory and the 21st Century: Iron Law of International Relations or an Outdated Idea?* In Statu Nascendi pp. 133-150

"An equal distribution of power among the Princes of Europe as makes it impractical for the one to disturb the repose of the other. (Anonymous [1741])"

The above-mentioned definition and the main idea behind the balance of power: it is an even distribution of power. Example for this characterization can be drawn throughout the last few centuries from different authors and sources:

- *"action by a state to keep its neighbours from becoming too strong… because the aggrandisement of one nation beyond a certain limit changes the general system of all the other neighbours… attention to maintenance of a kind of equality and equilibrium between neighbouring states.* (Fenelon [1835])"
- *"The balance of power, however it be defined, that is, whatever the powers were between which it was necessary to maintain such equilibrium, that the weaker should not be crushed by the union of the stronger, is the principle which gives unity to political plot of modern European history.* (Stubbs [1886])"
- *"An arrangement of affairs so that no state shall be in a position to have absolute mastery and dominate the others.* (Vattel [1916])"
- *"History shows that the danger threatening the independence of this or that nation has generally arisen, at least in part, out of the momentary predominance of a neighbouring state at once militarily powerful, economically efficient, and ambitious to extend its frontiers or spread its influence, the danger being directly proportional to the degree of its power and efficiency, and to the spontaneity and 'inevitableness' of its ambitions. The only check on the abuse of political predominance derived from such a position has always consisted in the opposition of an equally formidable rival, or of a combination of several countries forming leagues of defence. The equilibrium established by such a grouping of forces is technically known as the balance of power.* (Crowe [1928])"
- *"The balance of power operates in a general way to keep the average calibre of states low in terms of every criterion for the measurement of political power… a state which threatens to increase its calibre above the prevailing average becomes subject,*

almost automatically to pressure from all the other states that are members of the same political constellation. (Toynbee [1934])"

- *"The balance of power assumes that through shifting alliances and countervailing pressures no one power or combination of powers will be allowed to grow so strong as to threaten the security of the rest.* (Palmer, Perkins [1954])"
- *"When any state or bloc becomes, or threatens to become, inordinately powerful, other states should recognise this as a threat to their security and respond by taking equivalent measures, individually and jointly, to enhance their power.* (Claude [1962])"
- *"The balance's underlying principle… was that all the n^{th} disengaged powers would tend to intervene on the side that seemed in danger of losing any ongoing war, to ensure that such a loser was not eliminated from the system and absorbed into an emerging colossus.* (Quester [1977])"
- *"The balance of power refers to an actual state of affairs in which power is distributed among several nations with approximate equality.* (Morgenthau [1978])"

Different meanings can be interpreted by analysing the definitions quoted above:

- An even distribution of power.
- The principle that power ought to be evenly distributed.
- The existing distribution of power. Hence, any possible distribution of power.
- The principle of equal aggrandizement of the great powers at the expense of the weak.
- The principle that our side ought to have a margin of strength in order to avert the danger of power becoming unevenly distributed.
- To hold the balance of power means to have a special role in maintaining an even distribution of power.
- To hold the balance of power means a special advantage in the existing distribution of power.
- Predominance
- An inherent tendency of international politics to produce an even distribution of power. (Little [2007] p. 27)

I believe that the last one comes the closest of describing what really the balance of power as a concept is. I would further specify this concept by describing the balance of power: *An inherent tendency of international politics to produce a certain distribution of power that is acceptable by the major players of the world.*

The definition mainly focusing on describing the international system that seems to produce a certain constellation of forces. However, the balance of power theory aims to give an answer to the question how states change this constellation with specific types of balancing behaviour. The three main types of balancing are:

- Hard balancing
- Soft balancing
- Asymmetric balancing

This type of categorization is used by T.V. Paul and is summarized in Table 1. below.

Table 1. **Balancing Behaviour**

	Nature of Rivalry	*Key Strategies*	*Examples*
Hard Balancing	Intense, open, often zero sum. Relative gains matter most	Open arms build-up, formal alliances, or both	USA vs. USSR, North Korea vs. South Korea
Soft Balancing	Submerged, non-zero sum. Relative gains of limited concern for now.	Limited arms build-up. Informal, tacit, or ad hoc security understandings among affected states, within or outside of international institutions.	USA vs. China

		Preventive strategy	
Asymmetric Balancing	By state or non-state actors (e.g., terrorists). Rivalry intense, although latter are elusive actors.	Non-state actors and their state sponsors pursue asymmetric strategies; state actors follow mixture of traditional and non-traditional strategies to counter threat	Al Qaeda vs. USA, ISIS vs. USA, Hamas, Hezbollah vs. Israel

Source: Based on Paul [2004] p. 13

Hard balancing is the most traditional type of balancing carried out mostly by states engaged in intense interstate rivalry. It is the easiest to identify and it is one of the strongest signal a state gives to other stakeholders in the international system about its attitude towards the threat. It includes building and improving military capabilities and creating and maintaining formal alliances and counter alliances to match or overpower the capabilities of the key opponent or opponents. Using the military power of the country the opponent can be balanced with a strong commitment to stand up against it. Soft balancing behaviour is less threatening and less direct. It resembles more to using the state's smart power described by Joseph S. Nye, Jr. (Nye [2011]). It is mostly used by states when they try to balance potentially threatening states (instead of a more imminent threat). The limited arms build-up, ad hoc cooperative exercises and limited security understandings are a combination of the states military and economic power to devise smart power strategies in order to mitigate the threat in the medium to long term. Asymmetric balancing has been more relevant in the post-Cold War world. In this case, nation states try to balance and contain threats from non-state actors such as terrorist groups. In addition to nation state vs. non-state actor scenario, a weaker state can utilize subnational actors to weaken a stronger hostile state actor. The asymmetrical methods employed by subnational actors can increase the costs of maintaining the influence of the hostile state in the region (Paul et al. [2004] p. 13; Nye [2011]). For example, the United States used this method by supplying insurgents in Afghanistan against the Soviet

Union in the 1980s. Hundreds of millions of dollars and anti-aircraft missiles provided by the USA to the mujahidin helped drive the USSR out from the country (Rubin [2002]). These methods can be used to maintain and/or improve the relative position of Great Powers. Access to material resources such as oil supplies is also part of these strategies as *H3.* suggests.

The three main types of balancing (hard, soft and asymmetrical) are not always mutually exclusive strategies. The perception of the threat and the dynamics of international political life constantly influences the states' responses. For example, hard balancing with formal alliances, arms build-up and economic sanctions can be used at the same time with asymmetrical balancing by providing aid to subnational actors that are also hostile to the threatening state. The most effective use of asymmetrical balancing are usually when the balanced state is engaged in armed violence against the subnational group. For example, Soviet and Chinese aid to Vietnam against the USA, and the United States' aid to the mujahidin against the USSR (Llewellyn, Southey, Thompson [2019]; Rubin [2002]). The most clear-cut case is an open conflict between two (or more) states. The arms build-up and strengthening of formal alliances are visible actions. They are easily determined by international experts to be hard balancing behaviour. In the case of hard and limited hard balancing the perception of the threat is clear. It is less important to show to other stakeholders in the international system that a state feels threatened. The threatened state's balancing strategy has to match its adversary's potential military capabilities if it believes that the clash is imminent. Well-known examples for hard balancing behaviour can be brought from the 19th and 20th century where open conflict and the threat of war between Great Powers were more prevalent than nowadays. The Triple Alliance and the Triple Entente were formal alliances aimed at each other, just as the NATO and the Warsaw Pact, but another good example is the Quadruple Alliance which included Austria, Prussia, Russia and Great Britain against France in the beginning of the 19th century. If the threat is coming in the medium term, limited hard balancing may be enough to prepare for the challenge and not to alarm unnecessarily the opponent. Compared to hard balancing, soft balancing is most effective if it is used against a long-term threat. Limited hard balancing is a diluted version of hard balancing including coordinated military activity and limited arms build-up, while

soft balancing restrain the threat by institutional alignments or informal ententes. All of the mentioned balancing behaviour tries to deter an aggressive powerful opponent by increasing the cost-benefit calculations of the threatening state (Paul [2018] pp. 22-23)

The application of these strategies can be carried out simultaneously or alone as well as Table 2. below demonstrates with examples ranging from the early nineteenth century up until the contemporary era.

Table 2. **Historical Hard Balancing, Limited Hard Balancing, Soft Balancing and Asymmetrical Balancing**

Period[5]	**Main States**	**Instruments**			
		Hard Balancing	Limited Hard Balancing	Soft Balancing	Asymmetrical Balancing
Concert Era (1815-1853)	Austria, Prussia, Russia, France, UK	–	Limited arms build-ups	Concert System	–
Post-World War I. (1919-1939)	Allied vs. Axis powers	Alliances/arms build-up	Security guarantees short of formal alliances	League of Nations/ economic sanctions	Comintern
Cold War Era (1949-1991)	U.S. vs. USSR Blocs	Alliances/ arms build-up	Security guarantees short of formal alliances	United Nations	Financial and military aid to insurgents and rebels
	NAM vs. Superpowers	–	Asymmetrical arms build-ups	United Nations/ Non-Aligned Movement	–
Immediate Post-Cold War Era (1991-2010)	Russia & China vs. U.S.	–	Limited arms build-up	UN Security Council	Financial and military aid to insurgents and rebels
	Other second ranking states	–	Asymmetrical arms build-ups	ASEAN/ UN Security Council	–
Rising Power Era (2010–)	U.S. vs. Russia	NATO/arms build-up	–	Sanctions/ limited alignments	Financial and military aid to insurgents and rebels
	U.S. vs. China	–	Arms build-up/alliances	Limited alignments	–
	Europe vs. Russia	–	NATO/limited arms build-up	Sanctions	Financial and military aid to

[5] These historical periods are different than the macro periods I use in the dissertation.

				insurgents and rebels
India vs. China	–	Limited Arms build-up	Limited alignments	–
ASEAN	–	Asymmetrical arms build-ups	ARF/Law of the Sea Tribunal	–

Source: Paul [2018] p. 41

Some scholars such as Mark R. Brawley use different interpretations of the balancing strategies. Instead of using hard or soft balancing to describe the Great Powers' behaviour we can differentiate the balancing methods as external or internal balancing, bandwagoning, buckpassing or appeasement. (Brawley [2004])

Table 3. **Shorthand/Typology of Policy Options**

	Economic Components	*Military Components*	*Examples*
External Balancing	Strengthen oneself and one's allies through trade; exclude enemies	Find allies; join weaker alliance	Triple Alliance, NATO
Internal Balancing	Strengthen oneself through economic development; exclude all others.	Arms race	France, Germany in the second half of the 19th century against Great Britain
Bandwagoning	Develop ties to dominant power; wait for future.	Join dominant power's alliance	Hungary, Bulgaria, Romania with Nazi Germany
Buck-Passing	Free ride – increase one's wealth, not power, in short run.	Neutrality	Soviet Union (1939-1941)
Appeasement	Make concessions while building oneself up for the long run	Make concessions	UK (1935-1939)

Source: Brawley [2004] p. 85

The categorization of the strategies from Table 1. and Table 3. depends on our definition of the balance of power. Table 1. describes balancing strategies that are actively trying to deter

and/or counter a threat while the categorization of Table 3. extends the balancing typology to different policy options as well. Bandwagoning, buck-passing and appeasement is not a typical balancing strategy, and they can be even characterized as the opposite of balancing behaviour.

As we can see from Table 3. one important factor in balance of power is the time factor. This can answer the question why certain states in certain situation do not engage in external and/or internal balancing, therefore questioning the validity of the balance of power theory. If we accept that it is an inherent tendency of international politics to produce an equilibrium, the hard, soft and asymmetrical balancing categorization might be insufficient to fully understand international politics. Bandwagoning, buck-passing, and appeasement can be incorporated to the balance of power theory when a great power is using these strategies to deflect or delay the threat. (Brawley [2004]; Taliaferro, Ripsman, Lobell [2012])

The calculus of transformation of wealth into power can alter the evaluation of the state regarding the threat posed by a rising power. If we disregard this factor then balancing strategies from the threatened state(s) external/internal or soft/hard (depends on our terminology) should immediately manifest as soon as a rising state appear. Many puzzles in connection to the balance of power theory can be solved when we introduce this factor. In order to simplify the model, Mark R. Brawley introduced a binary system of rate of transformation of wealth to power. Inspired by him, I added an intermediate variable in order to broaden the scope of wealth conversion to power. This means that the threatened state(s) might choose a different strategy in order to counter the threat if it can rapidly, moderately, or slowly transform its wealth into power. In addition to that, the strategy differs when states have to confront the threat in the short, medium or in the long run (Brawley [2004]). It is easy to think of the well-documented example of the Second World War. The Allied powers could transform their wealth to power in the long run and tried to delay the conflict with the Axis powers in the short run by appeasement. The Munich Agreement is a glaring example of appeasement. While the Soviet Union used buck-passing with the Molotov-Ribbentrop pact in order to deflect Nazi Germany's first blow towards West. The Allied powers bought

time, and when their wealth were finally converted into enough military power, they defeated the Axis in the end. (Taliaferro, Ripsman, Lobell [2012])

The neoclassical realist approach to international relations helps us understand the time factor better than the structural realist school.[6] In terms of understanding how balancing strategies are chosen, the neoclassical realist approach uses unit-level factors such as strategic culture or leader perceptions. These unit-level variables help us understand the answers that a state gives to a threat. Table 4. and Table 5. explain the differences how the perceived rate of transformation of wealth to power affects balancing strategies. It helps us understand how conflicts evolve as in the case of the Second World War. Structural factors alone cannot sufficiently predict which strategy the state will pursue. Leader perception is one of the most important factor when a state evaluates the imminence of the threat.

Table 4. **Conditions Shaping the Choice of Strategy: *Balance Now***

Rate of Transformation of Wealth to Power	Availability of Allies	
	Yes	*No*
Rapid	External balancing plus arms race	Internal balancing plus arms race
Moderate	External balancing, continuously accelerated arms build-up	Internal balancing, buck-pass, short term appeasement
Slow	External balancing, invest in allies	Internal balancing, invest at home *or* bandwagon

Source: Based on Brawley [2004] p. 87

[6] See more about different theories of international relations in Chapter 6 and 7

Table 5. **Conditions Shaping the Choice of Strategy: *Balance Later***

Rate of Transformation of Wealth to Power	Availability of Allies	
	Yes	*No*
Rapid	?	Bandwagon, invest at home
Moderate	External balancing, moderate arms build-up	Internal balancing, invest at home
Slow	Buck-pass, invest for long term	Appease, invest at home

Source: Based on Brawley [2004] p. 88

In Table 5. the question mark refers to the unknown strategy that the state may pursue. If balancing is needed only in the long run and the state can rapidly transform its wealth to power and it has the sufficient allies to defeat the rising power, it can choose any strategy.

As the balancing strategies suggest one of the key component of the balance of power is the creation and disintegration of alliances. (Organski, Kugler [1980] p. 16) The long lasting alliance structure of the United States in the Middle East especially with Saudi Arabia shows how certain capabilities that an alliance partner can bring influence the tightness of an alliance. If balance of power and oil is only loosely connected the alliance formation of Great Powers, then access to resources should not count as heavy of an incentive to create and maintain an alliance with the crude oil provider. If my assumption is correct that crude oil producers have an elevated value compared to other raw material providers, the alliance system of Great Powers should show that. Furthermore, these alliances should show that Great Power sponsors have been placing special attention to these allies mainly because of their oil sources. In the case study section, I will show how the United States maintained these special relations not like other similar allies without crude oil sources. Furthermore, in the case study of Russia, the pragmatic relationship between Russia and Saudi Arabia is another example of cooperation based on oil.

4.1. Omnibalancing[7]

My research focuses mainly on Great Power behaviour therefore the classical balance of power theory should hold enough explanatory power to answer the hypotheses. Well-established states usually worry little against internal threats. In order to project power abroad and engage in a struggle for international preponderance or for the status quo, states need to have well established reliable domestic political order. Therefore, neorealism does not examine the domestic structures of states and place an emphasis on the power projection capabilities of states as a threat to other state actors in the international system. (Waltz [1979] pp. 102-128; Morgenthau, Thompson [2006] pp. 183-193) Steven R. David contributed to the balance of power theory by coining the term and theory of omnibalancing: *"It incorporates the need of leaders to appease secondary adversaries, as well as to balance against both internal and external threats in order to survive in power. This theory rests on the assumptions that leaders are weak and illegitimate and that the stakes for domestic politics are very high – conditions that are much more common in the Third World than elsewhere. It assumes that the most powerful determinant of alignment is the drive of the Third World leaders to ensure their political and physical survival* (David [1991] p. 236)."

The presence of potential omnibalancing as a divergence from the traditional balance of power theory does not weaken it. The descriptive power of omnibalancing appears connected to typically Third World states that are not major actors in international relations. The international system is mainly influenced by the Great Powers which are not Third World states themselves therefore balance of power theory remains a good tool to examine the international system with it. (Waltz [1979] pp. 37-38; David [1991] pp. 251-253; Selján [2021] pp. 73-75)

[7] In Chapter 4.1 and 4.2 I explain newer additions to the balance of power theory such as omnibalancing and hedging that expands on the classical balance of power theory and shows its relevance today.

4.2. Hedging

According to Goh hedging can be defined as "*a set of strategies aimed at avoiding (or planning for contingencies in) a situation in which states cannot decide upon more straightforward alternatives such as balancing, bandwagoning, or neutrality.* (Goh [2006])"

Hedging complicates the analysis of balance of power strategies since its aim is to manage uncertainty and limit risks by showing mixed signs. These deliberate mixed signals shroud the final intent of the state in order to avoid showing one-dimensional intent, therefore becoming a clear enemy for others. (Tunsjø [2010] p. 29.)

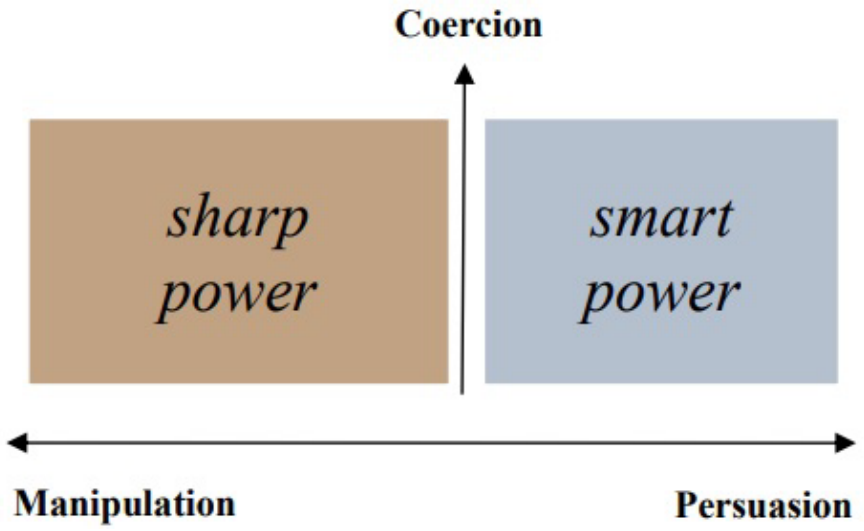
Hedging can be linked to risk management, which requires risk analysis. Risk analysis differs from threat assessment, the former is dealing with the uncertainty of tomorrow that can pose an increasing danger while the latter mainly focuses on a specific threat/danger that can be classified and measured with capabilities and intent. (Heng [2006]) Risks are different than threats, because in theory threats can be eliminated while risks can only be managed. (Tunsjø [2010] p. 32.)

4.3 Categorization of Power

Competition among international actors manifest itself in many spheres. Military, economic, diplomatic and soft power spheres all contribute to the competition. (Brzezinski [1997]) There are several categorization of the usage of power in international relations. Joseph Nye developed one of the most famous definition. Hard, soft and smart power all play a role in international relations. Hard power manifest itself materially within the military and economic sphere. Soft power is using diplomatic, political and societal non-material forces to shape world politics. (Bilgin – Elis [2008] p. 6) The combination of the soft and hard

power components can be considered the definition of smart power. (Nye [2009]) A newer addition to these categories is the sharp power, which refers to authoritarian regimes using information to manipulate public opinion both domestically and abroad. (Walker [2008] p. 9)

Figure 3. **The Position of Sharp Power with Regard to Smart Power**



Source: Skoneczny, Cacko [2021] p. 330

Sharp power is used to alter democratic discourse, polarise them, spread misinformation to undermine democracies. (Walker, Kalathil, Ludwig [2020] p. 124) Authoritarian states like China and Russia have been using these balancing strategies to weaken Western democracies by utilizing election manipulation, information warfare, hybrid conflicts etc. Sharp power is state organised aggressive actions, imitating soft power elements to manipulate/destabilize a country (or other actors of international politics). (Skoneczny, Cacko [2021]) A good example is the use of RT by Russia and the Confucius Institutes by China.

These different type of power strategies all indicate the many ways how states try to improve and/or maintain their place in the international system. *H3. states that when Great Powers cannot maintain access to oil supplies in order to keep their power projection capabilities at a similar level as other Great Powers, they lose their status of being one.* The manipulation

tactics are also part of the repertoire of the states to keep their (direct or indirect) control over oil supplies and their Great Power status.[8]

[8] See more examples of using hard, soft and sharp power in Chapter 10.2.1

5. Balance of Power Theory and Debates[9]

Discussions connected to the balance of power has been in political science since centuries. The evolution of the theory through debates has not stopped even today. Major works such as Hans J. Morgenthau's Politics Among Nations – The Struggle for Power and Peace, Hedley Bull's The Anarchical Society, Kenneth Waltz's Theory of International Politics (Waltz [1979]) and John Mearsheimer's The Tragedy of Great Power Politics (Mearsheimer [2014]) are notable mentions among the different conceptions of how the international system works from the last seventy years.

Five key developments occurred concerning the approach of theorists related to the balance of power since the end of the Second World War. The first few decades of the Cold War was dominated by the classical realist approach that can be connected to Hans J. Morgenthau's name. (Morgenthau, Thompson [2006]) His work has been very influential and target of a lot of criticism. Besides classical realism, a behavioural approach appeared. This method aimed at introducing a more systematic and scientific methodology into the study of international relations. It is ideal to research certain aspects of the balance of power theory with the behavioural approach, since some of its attributes can be quantified. Quantifiable measures of distribution of power in international relations and their change year by year are: the number of alliances and the number of wars. Both can also be assessed. Through more advanced statistical methods a holistic picture can be drawn. The new approach can be criticised by the classical realists and diplomatic historians because the quantification disregard the motivation and behaviour of different states. (Little [2007] pp. 258-259)

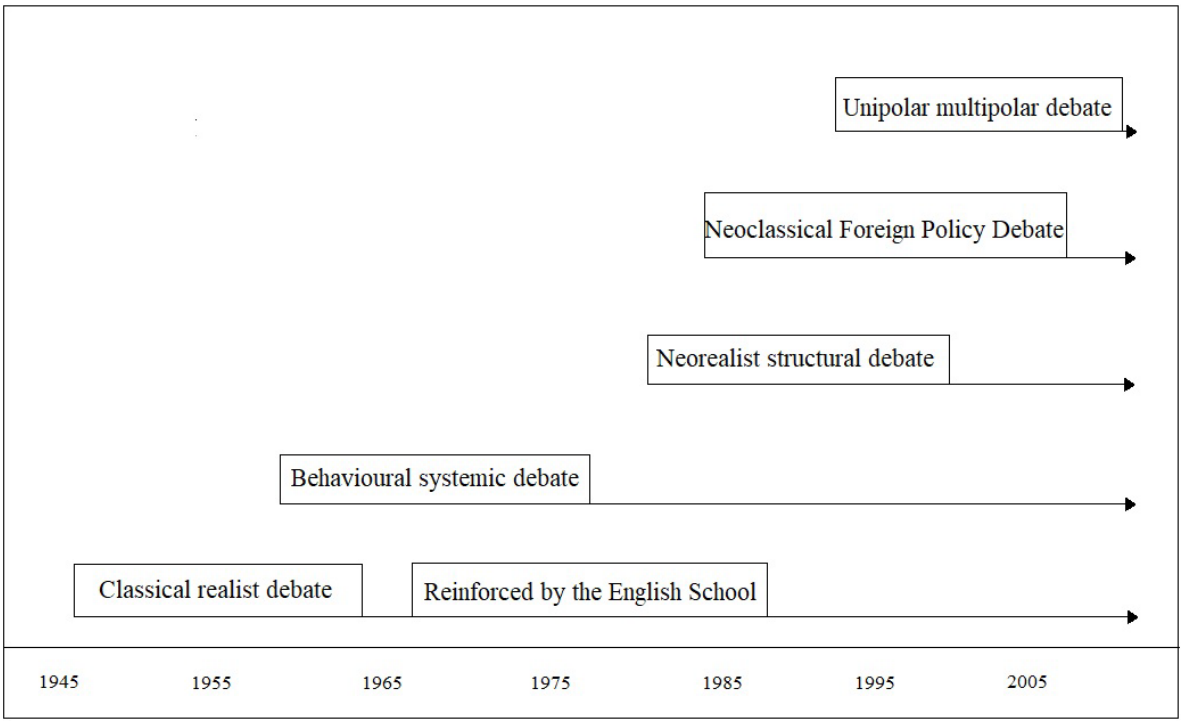
[9] Earlier version of Chapter 4 and 5 was published by Mezei, A. [2020]: *Balance of Power Theory and the 21st Century: Iron Law of International Relations or an Outdated Idea?* In Statu Nascendi pp. 133-150

Hedley Bull and the English school thinking is similar in some aspects to the realist school, but it places a more important emphasis on norm-driven explanations, and examines the system/society divide. (Little [2007] p. 260; Bull [1977])

Kenneth Waltz made a significant development in the orientation of the balance of power thinking at the end of the 1970s by his Theory of International Politics book. This was the third significant development since the end of the Second World War. Waltz's neorealist structural approach intends to show how the uncoordinated rational actions of states produce and reproduce an anarchic international system. Waltz demonstrated how changes in polarity or structure of the international system explain the different responses by the constituent states. (Waltz [1979]; Little [2007] p. 260)

As a criticism of the structural approach Stephen M. Walt developed the balance of threat theory to replace the balance of power once and for all. His theory emphasises the difference between power and threat and tries to explain the different responses that seems to counter the balance of power theory especially after the Cold War and the rise of the U.S. as the sole most powerful state in the world. (Walt [1990]) The neoclassical approach by Randall L. Schweller, Ilai Z. Saltzman and others focused instead of Waltz's structural approach that explain the balance of power with the anarchic international system to specific foreign policy responses of individual states. (Schweller [1998]; Miller, Saltzman [2016]) The neoclassical approach associates balancing with a very specific kind of foreign policy behaviour. One of the main difference between Waltz's neorealist approach and the neoclassical approach that the former tries to distinguish structural analysis and foreign policy analysis while the latter dissolves the distinction. (Little [2007] pp. 261-262)

Figure 2. **The Emergence of Balance of Power Debates After the Second World War**



Source: Little [2007] p. 261

The end of the Cold War and the relative power of the United States compared to other players generated a lot of debates between the scholars. William Wohlfort noted that the structure of the post-Cold War world is very distinct to the nineteenth or twentieth century. Structural pressures on the United States are weak, therefore a structural approach is not necessarily sufficient to explain the international system. John Mearsheimer added to the structural approach by introducing the geographical factor to the equation. His approach was described to be an offensive realist one. The geographical dimension allows the international system to be regionalized and different Great Powers can strife for regional hegemony instead of a global one. (Wohlfort [1999]; Mearsheimer [2014]; Little [2007])

There are several methods to differentiate states. I use the realist categorization between states meaning they are grouped into a tier system. This system is generally used by international relations scholars, whom are mainly concerned about the behaviour of the most

influential states. (Schweller [1998]) These states are called Great Powers. For clarification, I use the term Great Power as major state actors of the international system that are recognized by each other as a unit possessing the rank of a Great Power. This approach to Great Powers is in line with neoclassical realist theory, which is concerned about relative changes in power which can be interpreted at a unit level. Therefore, states recognize each other's status, and behave toward each other as such, reinforcing their categorization.

Generally, Great Powers are states that have enough capability to overcome geography. (Grygiel [2006] p. 12) In other words: *"With air power supplementing sea power and mobility again the essence of warfare, no region of the globe is too distant to be without strategic significance, too remote to be neglected in the calculations of power politics.* (Spykman [2007])" In the examined period of 1918-2020 there is a two-tier Great Power system. In the pre-1945 period, there are Great Powers namely: USA, USSR, UK, Germany, France, Japan, Italy. Their relative capabilities were widely different, but they were like units and they recognized each other as Great Powers. Between 1945 and 1991, I use the term Super Power for the USA and the USSR elevating them up above the tier 2 Great Powers of the time. The post-1991 period only contains one Super Power: the United States. However, in order to avoid confusion, I examine the highest tier of Great Powers in the different macro periods.[10] This means that the polarity of the international system describes the number of poles in each macro period. The poles of the international system are considered to be the number of highest tier powers in the system. Lower tier Great Powers describe states that are not the main poles in the bipolar or unipolar system. The post-1945 requires the usage of the distinction, because Great Powers possess a considerable amount of military strength, but cannot sustain themselves against Super Powers alone. The Great Powers of the post-1945 era can exert influence and change the global and/or regional balance of power by tipping the scales in favour of one of the Super Powers. (Schweller [1998] p. 17) Therefore, they are still important actors in the international system when it comes to the balance of power.

[10] In the dissertation I refer to the examined states as Great Powers not Super Powers. Super powers are Tier 1 Great Powers of the post-World War II. era.

6. International Relations Theory and Balance of Power

6.1. Liberalism

Three main point of liberal thought in international relations have been posing a theoretical challenge to realist thought. One key feature of liberalism is that economic interdependence reduces the chance of interstate conflicts through mutually threatening their prosperity. Secondly, the idea that democratic states are inherently more peaceful than authoritarian states. Thirdly, international institutions reduce uncertainty in the international system and help overcome selfish state behaviour by promising increased benefits through cooperation. (Walt [1998] p. 32)

Liberal constitutional and economic theory underlie the concept of checks and balances and equilibria. The core concept of the balance of power is the survival of the international system by states to prevent a hegemon or a hegemonic coalition to be formed. (Doyle [1997] pp 161-162; Butterfield [1966]; Waltz [1979]; Boucoyannis [2007]) Instead of portraying liberalism in IR as the theory of idealism, moralism or utilitarianism, BoP is a Liberal prediction as well. In classic liberalism conflict was managed, and was not assumed to be out of existence. Liberalism assumes conflict, anticipates abuse of power at any level of political organization and every form of social relations, although it does not denies progress in social relations themselves. (Boucoyannis [2007]) The core intuition of liberalism is to recognize human nature and to develop an institutional structure that balances power, passion and interest with themselves to allow an optimum (i.e. balance) to emerge. (Montesquieu [1989]; Hirschman [1977]; Boucoyannis [2007])

A fairly common understanding of liberalism is that cooperation rather than competition will ensure the liberal peace. In contrast, balance of power theory suggests that aggressive

attempts at hegemony will generate opposition (i.e. balancing behaviour) therefore deterring aggressive war. Bipolar systems discourages war between the two poles, but it does not prevent proxy wars or conflict between regional rivals. Multipolar systems can also have military conflicts to counter a rising power. (Doyle [1983] p. 224)

Table 6. **Competing Paradigms of International Relations Theory**

Competing Paradigms	Realism	Liberalism	Constructivism
Main Theoretical Proposition	Self-interested states compete constantly for power or security	Concern for power overridden by economic/political considerations (desire for prosperity, commitment to liberal values)	State behaviour shaped by elite beliefs, collective norms, and social identities
Main Units of Analysis	States	States	Individuals (especially elites)
Main Instruments	Economic and especially military power	Varies (international institutions, economic exchange, promotion of democracy)	Ideas and discourse
Modern Theorists	Hans Morgenthau, Kenneth Waltz	Michael Doyle, Robert Keohane	Alexander Wendt, John Ruggie
Post-Cold War Prediction	Resurgence of overt great power competition	Increased cooperation as liberal values, free markets and international institutions spread	Agnostic because it cannot predict the content of ideas
Main Limitation	Does not account for international change	Tends to ignore the role of power	Better at describing the past than anticipating the future

Source: Based on Walt [1998] p. 38

6.2. Neorealism

Using the neorealist mind-set could help us understand the power dynamic between states and provides the researcher a lot of studies that were carried out in the past connected to the question of how changes in relative power affects the balance of power (because throughout the second half of the 20th century it was the most widely used theoretic framework). Political realism works with four assertions that reinforce the relevance of the balance of power.

- Anarchic international system without a central governing authority
- States want to ensure their survival and sovereignty in the system
- Relative power distribution among the Great Powers determines international relations.
- If a Great Power seeks to establish hegemony, through external and internal balancing states will respond to the threat. (Paul [2005] p. 51)

Furthermore, the question of oil is strongly connected to military might. Power and its distribution is a central question and oil greatly affects the military capabilities and economies of the states since the beginning of the 20th century. For example, Mearsheimer's offensive realist theory deals with systemic view of the international order and tries to give answers to important historical questions related to certain conflicts.

Some noteworthy puzzles that offensive realism tries to give an answer to:

- Causes of wars like, World War I., World War II.
- Causes of relative long periods of peace
- How and why effective balancing coalitions form, and why not (Mearsheimer [2014])

Jeffrey W. Legro and Andrew Moravcsik described realism as a family of theories working with three core assumptions.

- Actors are rational, unitary political units in anarchy
- The nature of state preferences are fixed and have uniformly conflictual goals

- Primacy of material capabilities in the international structure (Legro, Moravcsik [1999] pp. 12-18)

Since realist theory long deals with material capabilities, it suits my dissertation well to continue using this theoretical background while examining the effects of oil on the balance of power. The traditional realist assumption is the supremacy of military and hard power. However, after two world wars and the development of nuclear weapons the direct confrontations among Great Powers could bring an enormous devastation and cost. Prudent leaders rarely can entertain direct total military confrontation as rational solution for conflict resolutions. In addition to the threat of escalation of conflict between two or more nuclear powers, the usage of militaries as a means of waging total war is unlikely. *"With today's weapons it is hard to see that there could be an issue about which both sides would genuinely prefer to fight a major war rather than to accommodate* (Schelling [2008] p. 206)."

The consequences of decreased chance of direct military conflict is to increase the importance of other factors of international relations as a means to demonstrate power. Energy diplomacy has been an important part of international relations. James E. Dougherty and Robert L. Pfaltzgraff thinks *"Military power did not seem to be the key variable explaining states place in the international system. There were projections that concerns about economic security will prevail over those of military security.* (Orbán [2008] p. 8)"

The importance of energy resources has been increasing for centuries as more and more sophisticated weaponry has been developed for militaries. The stark difference that came with the industrial revolution is that the more sophisticated weapons require resources that are not equally available around the globe. That is why all of my hypotheses are so important to research for understanding international relations. Access to crude oil and control over it is a central part of state power, therefore I argue that oil as a material power is central in foreign policy decision making.

The widespread utility of oil as an unquestionably useful commodity places it in a unique space for national power. In addition to its widespread utility, this commodity is not as easily accessible as for example coal. Therefore, traditional Western and other Great Powers all

have to place a special attention for securing their energy sources in order to counter any potential deprivation by other powers. The commercialization of energy sources does not solve the problem according to the realist paradigm, because states are the main actors defining both international relations and energy relations globally. State owned energy companies controlled about 85% of world oil reserves and 70-80% of world natural gas reserve according to Prof. Antonio Marquina in 2009. (Marquina [2009]). The case study of UNOCAL[11] is a good indication how commercialization of the oil industry is not total. Furthermore, as realist theory predicts, states as unitary actors have preponderant power over matters of energy access. The more powerful a state, the bigger room for handling energy sources are at its disposal. That is why I proposed *H2.: Ensuring access to crude oil influences the foreign policy of Great Powers. The less oil resource one state has control over, the more its foreign policy is focused on it.* If this hypothesis is correct the more powerful state should have less to worry about losing access and more room to devise and conduct its foreign policy. According to Kenneth Waltz states seek their own preservation as a minimum goal, and drive for universal domination at a maximum (Waltz [1979]). The struggle for survival and the characteristics of the distribution of resources around the globe create certain systematic pressures that states have to take into account when they make decisions about their survival in the system. As Figure 5. shows the constant changes in power capabilities generates a competition among Great Powers for material resources. *"Interstate politics is thus a perpetual interstate bargaining game over the distribution and redistribution over scarce resources.* (Legro, Moravcsik [1999] p. 14)"

Pure regional balance of power systems no longer exist. When international relations and the world economy were less connected, local actors could form either hierarchic or anarchic systems. These systems could simultaneously exist in the past, because the power projection capabilities of the states were limited. (Kaufman, Little, Wohlforth, [2007]) In the 20th century these regional balance of power systems could only occur where Great Power competition was not present, namely in small and remote areas. However, these competitions

[11] Chapter 11.7

were insignificant in light of the Great Power competition and the cold war in the 20th century. Outside actors through formal or informal alliance formation influence regional balance of power systems, because the interests of the Great Powers and their influence spread around the globe.

This phenomenon is not surprising if we take into account the development of both the world economy and national economies. As more sophisticated equipment and more advanced technologies have been developed, the need for raw materials increased. Through colonisation and trade, these raw materials were sourced from around the globe. The 19th century foreshadowed that colonial empires will eventually ran out of space to conquer and an inevitable conflict will challenge the world order of the 19th century.

Even though trade among the great powers were substantial, the relative power differences and the differential growth of power caused the system to unravel. The importance of access to resources were a main driving factor behind the cause of the two world wars. In the dissertation *H3.*asssumes that *Great Powers try to maintain and/or improve their place in the international system through balancing strategies. When Great Powers cannot maintain access to oil supplies in order to keep their power projection capabilities at a similar level as other Great Powers, they lose their status of being one.* In the case study section I argue and showcase this hypothesis. Since the end of the two world wars, the world order has been based on free trade via the help of the United States. However, beneath the surface the anarchic international system still puts systemic pressure on states to ensure that their access to resources are met. Relative power and its changes influence the balance of power. National interest and access to vital resources are intertwined. One of the most glaring examples of this phenomenon is the continued U.S. present in the Middle East. Through the 20th century. This region became one of the most important place for the U.S. to exercise power in order to defend its national interest. In the case study section of this paper, I will detail the extent of the USA's involvement in the region.[12]

[12] Chapter 11.

7. Neoclassical Realism, Oil & the Balance of Power

Question of oil requires a global scope. I examine the global system as a whole and do not narrow down my research to specific countries, because a wider scope is better to capture this phenomenon. To help my research I use realism as a main guiding discipline as it suits the nature of the research better than other IR schools of thought. The different type of realist approaches are all concerned about the distribution of power in international relations, and try to theorize how states act in the constantly changing environment. Table 7. below shows the different sub-schools of international relations with some notable scholars.

Table 7. **Realism in International Relations**

<table>
<tr><th>Until 1979</th><th>1979-The end of the Cold War</th><th>After the Cold War</th></tr>
<tr><td rowspan="4">Classical Realism

Before WWII: Thucydides, Machiavelli, Hobbes, Rousseau

After WWII (modern realism):

E.H. Carr, R. Niebuhr, Hans J. Morgenthau, Raymond Aron, G. F. Kennan, Henry Kissinger</td><td rowspan="4">Neorealism

Kenneth N. Waltz</td><td>Offensive Realism

John Mearsheimer</td></tr>
<tr><td>Defensive Realism

Stephen Krasner, Robert Gilpin, Joseph Grieco</td></tr>
<tr><td>Neoclassical Realism

William Wohlforth, Randall Schweller, Robert Jervis, Steven E. Lobell, Norrin M. Ripsman, Jeffrey W. Taliaferro</td></tr>
</table>

Source: Edition of the author

7.1 Neoclassical Realism

The main novelty of my research is to broaden the neoclassical realist theory of international relations. This relatively new school of thought provides a more nuanced approach to international politics than neorealism. Systemic approaches of international relations rarely provide a clear and certain circumstance for foreign policy decision making. Threats and opportunities could manifest differently for decision makers therefore systemic approaches alone can hardly provide a sufficient description of foreign policy outcomes. (Ripsman, Taliaferro, Lobell [2016] p. 3)

There are few, but important main differences from the structural approach that is vital to understand concerning the balance of power theory and oil. Realist thought before neoclassical realism emphasised constraints in international relations theory; however domestic variables and constraints need to be included for a more accurate foreign policy analysis. That is why it is a better theory for examining the connection between balance of power, foreign policy and oil. Neoclassical realists differ from neorealist thinkers in rejecting the idea that systemic pressures will immediately affect the action of states. Relative power and internal factors in an anarchical system affect the behaviour of the units as well. (Firoozabadi, Ashkezari [2016]) The distinction between national and state power adds additional parsimony. The struggle for power among nations manifest not just in the number of military equipment. The realist security dilemma can be applied to the field of resource endowment including the importance of energy as a strategic commodity. Strategic commodities inevitably bring a competition for control of them among Great Powers elevating the stakes to secure them. (Moran, Russel [2009] pp. 1-12) The main questions for realists when dealing with the security dilemma connected to geopolitics and oil sources:

- Availability of oil
- Demand for oil
- Pricing of oil

- Nature of state/non-state actors who are competing for securing oil (Mohapatra [2016] p. 686)

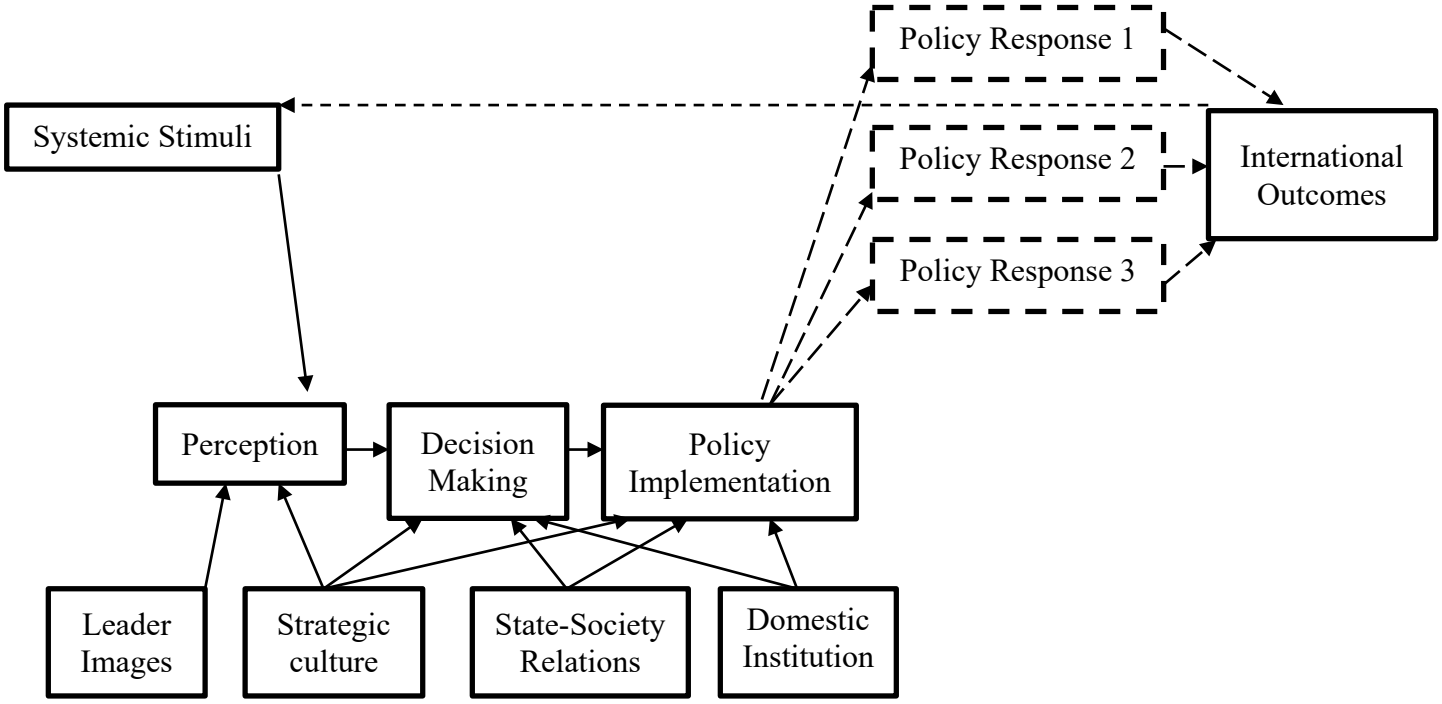
Distribution and access to energy resources among state actors is a potential explanation of differences among otherwise like units, whether they be net-exporter, net- importer or transit countries. *H1.* assumes proposes the hypothesis that *Every Great Power had access to the majority of the proved oil reserves since the Industrial Revolution.* If this can be proved then we can understand Great Power politics better.[13] The lobby power of the energy security differs among states therefore the perception of changes in relative power connected to energy could differ as well. If a country has a more concentrated energy sector with one or few big players, and if that state is nondemocratic (meaning decision-making is more centralized), it can transform national power (i.e. energy resources) into state power more efficiently and rapidly in order to influence international relations through energy policy. (Česnakas [2010] p. 48) Leader perception plays a great role in neoclassical realist theory, compared to neorealism where leaders assume to choose rational and optimal policy. However, due to several factors such as high stakes and short timeframe in a crisis, leaders can choose suboptimal policy options. Second, structural realist approach does not differentiate between the functionality level of states. However, different states have different extraction and mobilization capabilities, which makes their actions to systemic stimuli different. (Ripsman, Taliaferro, Lobell, [2016] p. 23) State power and national power is not the same. State power is the resources that the state has at its disposal and national power refers to latent capabilities that a state can mobilize only if it has more time at its disposal (Zakaria [1999])

The political economic part of balance of power theory (Table 4. and Table 5.) shows how differently states can act if their conversion rate of wealth to power is different. Figure 4. shows how neoclassical realist theory incorporates structural and unit level forces in its explanation of international outcomes. The policy selection of decision makers influenced by

[13] See more about the extent of direct/indirect control over oil by Great Powers in Table 19.

numerous factors such as leader images, strategic culture etc. that influence policy choices that has an impact on the international system.

Figure 4. **Type III Neoclassical Realist Model**



Source: Ripsman, Taliaferro, Lobell, [2016] p. 34[14]

Leader images and strategic culture influence the perception of systemic stimuli. Leaders with low cognitive complexity are more likely to use blunter actions such as military force. (Keller, Foster [2012], [2016]) Autocratic leaders might use different balancing strategies than democratic ones with strong domestic political actors. Democratic regimes have to devise their strategies with more complexity therefore, leaders with cognitively complex worldview are less likely to use military force. (Foster, Keller [2014])

[14] I use this model in the dissertation multiple times to connect neoclassical realist theory to the foreign policy actions of the states throughout the case studies.

The impact of domestic institutions have been long identified as an important factor when leaders respond to systemic stimuli. Democratic peace theory and autocratic peace theory both found claim to support different influences of domestic political institutions (Pickering [2002] pp. 293-324; Peceny, Beer [2003] pp. 339-342) The tendencies of different types of regimes to use force is shown by Figure 6. and Figure 7. Democratic regimes tend to resort using force less likely than autocratic ones. (Lai, Slater [2006] pp. 113-126; Mattes, Rodríguez, [2014] pp. 527-538; Weeks [2012] pp. 326-347)

Among the intervening factors, only domestic forces can be examined. The impact of membership in international organisations (IGO) are missing. Some analysis suggests that they have an impact by reducing conflict probability by providing communication channels thus reducing misinformation among states about their intentions. (Russet, Oneal, Davis [1998] pp. 441-467) However, these finding have been contested and several studies found that IGO membership has little effect on conflict reduction especially after the end of the Cold War (Boehmer, Gartzke, Nordstrom [2004]; Anderson, Mitchell, Schilling [2016])

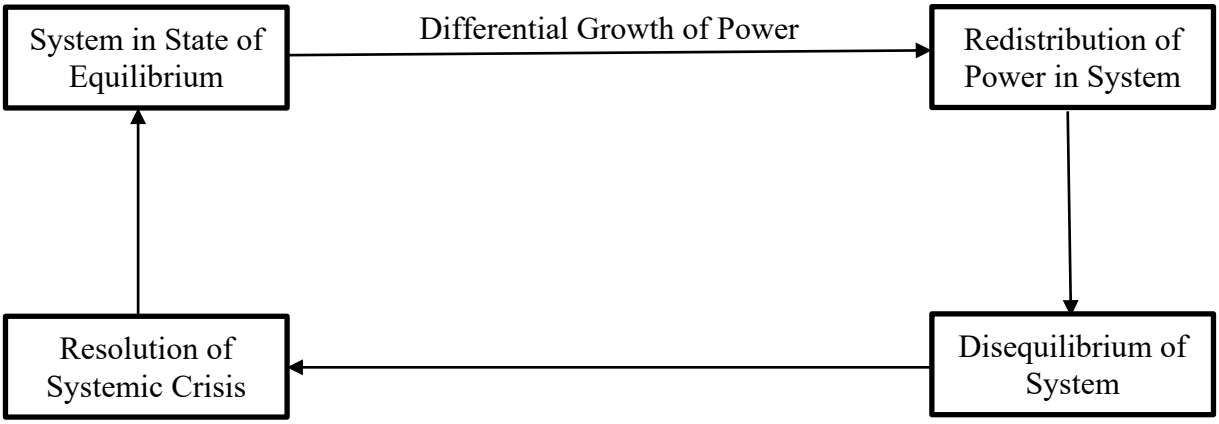
Power is an essential cornerstone of international relations theory, however there are debates how to describe and/or measure it.[15] The main viewpoint of classical, structural and neoclassical realism is that the never-ending struggle among states for power and influence in a world of uncertainty and finite resources is international politics. (Frankel [1996] pp. ix-xx) Each other's intentions and capabilities are constantly in question in order to figure out the proper foreign policy among states. Oil is one of the most important finite resource of our time; therefore, its availability and price constitute a great variable in the system.

As Figure 4. shows unit level variables influence the foreign policy responses of states. Leader images, strategic culture, state-society relations and domestic institutions are important intervening factors, which I highlight in the case studies section of the paper. States are different in many aspects that result in different interpretations of systemic stimuli. The systemic stimuli that I examine is the change in oil production and consumption which we

[15] For categorization of power see Chapter 4.3

can quantitatively measure, but the responses differ depending on the intervening variables resulting in different policy responses that lead to various international outcomes changing and shaping the international system. This reshaping provides additional systemic stimuli that can lead to disequilibrium in the international system. The disequilibrium usually caused by differential growth of power, but differential growth of power can occur not just from economic and/or military development, but changes in material capabilities as well. Resource endowment such or resource scarcity both can lead to a different distribution of power as the status quo ante. Figure 5. shows how this cycle of international political change occurs.

Figure 5. **Diagram of International Political Change**



Source: Gilpin [1983] p. 12

The resolution of systemic crisis can be balance of power strategies at work, where either the systemic crisis is resolved through peaceful means, or balancing strategies are not sufficient and a military conflict resolves the disequilibrium of the system.

In international relations, the balance of offense and defence has always been a crucial question. Grand strategies have been shaped by the perception which one has the more advantage. In the last century, this balance has changed from time to time, mainly because of the spread of nuclear weapons among Great Powers. The existence of these weapons created a completely new reality after the Second World War. In the first macro period, that I examine 1918-1945 the military factors favoured the offense even though the First World

War showed the power of the defence. Table 8. below shows the changing offense-defence balance among Great Powers.

Table 8. **Offense-Defence Balance among Great Powers, 1919-Present**

Era	(1) Military factors favoured	(2) Military factors were thought to favour	(3) Diplomatic factors favoured	(4) Diplomatic factors were thought to favour	(5) Together, military and diplomatic factors favoured	(6) Military and diplomatic factors were both thought to favour	(7) Amount of warfare among great powers	(8) Amount of expansionism among great powers
1919-1945	Aggrs.	Mixed[1]	Aggrs.	Aggrs.[2]	Aggrs.	Aggrs.[3]	High	High
1945-2001	Defs.	Med.	Defs.	Defs.	Defs.	Defs.[4]	Low	Medium
2001-Present	Defs.[5]	Med.	Defs.	Defs.	Defs.	Defs.[6]	Low	Low

Note: The perception entries are an average of the perceptions of the great power elites. In some cases, the perception of these elites varied sharply across states, for example, perceptions of military realities in the 1930s.
Aggrs.: the factor favours aggressors.
Defs.: the factor favours defenders.
Med.: a medium value: things are somewhere in between, cut both ways.
Mixed: some national elites saw defence dominance, some saw offense dominance.
[1] Things varied across states. The German elite recognized the military power of the offensive in the late 1930s; the elites of other great powers thought the defence was dominant.
[2] Things varied across states. The German elite (above all Hitler) exaggerated the considerable actual diplomatic weakness of the defence; the elites of other great powers recognized this weakness, but did not overstate it. These beliefs average to a perception of substantial diplomatic offense dominance.
[3] When we aggregate perceptions of the offense-defence balance, the errors of Germany and the other great powers cancel each other out. Germany's exaggeration of the diplomatic power of the offense offsets other powers' exaggeration of the military power of the defence, leaving an aggregate perception fairly close to the offense-dominant reality.
[4, 6] Elites exaggerated the strength of the offense during 1789-1815, 1871-90 and 1945-1990s, but not by enough to give realities and perceptions of the offense-defence balance different scores.
[5] The presence of nuclear weapons still favours defence, but the possibility of a localized conflict between great powers using precision guided conventional missiles and drones for example in the Taiwan Strait could favour offense.
Source: Based on Van Evera [1999] p. 171

The new more mobile military machines powered by oil made a huge difference on making the offense more favourable. The spread of armoured vehicles, their improved speed meant that longer supply lines were easier to maintain, and deliver war material to the front more quickly. Furthermore, these vehicles could manoeuvre the terrain more efficiently than the ones used in the First World War, making ditches and fortifications easier to overcome. The best example from the period is the Maginot-Line and the Ardennes forest. These two were a cornerstone of French defences; however, they did virtually nothing to stop the German advance during the Second World War. In my Japanese case study[16], I elaborate on the effects of oil concerning the Japanese Grand Strategy in the Second World War, which showed how the military of Japan depended on oil in order to carry out its objectives, and how American embargo on petroleum products such as high octane jet fuel dealt a major blow to the Japanese capabilities.

7.2 Petrostates and Conflict

The requirements of becoming a Great Power is numerous.[17] Plenty of states reached the rank of a Great Power and a lot of them lost that title as well. Although there are many criteria, one thing is for certain. Material capabilities whether they are used for economic soft power projection or military hard power projection influence the international system. Oil is an important material resource since it has been one of the main energy sources of both the militaries and both the world economy in the past century. The control of crude oil sources is an important factor on calculating the power of a state. If we talk about only Great and Super Powers the lack of substantial control over this resource exclude a state from these ranks altogether as *H3.* would suggest. If a Great Power or a collection of states can deny one

[16] Chapter 12.
[17] For clarification see page 44

country from accessing this vital resource a core factor of being a Great Power is denied, therefore the country cannot maintain its rank among the strongest states. The case of Japan is the textbook example of losing the Great Power rank through the denial of this material resource before and during the Second World War.[18] One factor of the diminishing power of the United Kingdom was the loss of reliable and plenty oil resource from Iran in the 1950s. The French could not recover their true Great Power status during the 20th century even though they made several desperate attempts to secure their own reliable oil supply. It was not the only reason they lost the rank of a Great Power, but by becoming dependent on other countries supplying this vital material certainly did not help elevate the country back to its former glory. All these examples seem to back *H3* meaning *when Great Powers cannot maintain access to oil supplies in order to keep their power projection capabilities at a similar level as other Great Powers, they lose their status of being one.*

The two sole superpowers of the 20th century the United States and the Soviet Union both had reliable and plenty of oil reserves on their own. Even though the United States was shocked by the oil crises in the 1970s it has been maintaining a reliable oil supply for itself. The main reason for the United States to be involved so heavily in Middle Eastern politics is the national interest of the USA to ensure that the global oil supply, which has been coming from the Middle East, is undisrupted. The actions of the United States seem to disprove *H2.* which suggests *the less oil resource one state has control over, the more its foreign policy is focused on it.* The United States has always been endowed with oil sources and reserves. However, its foreign policy is focused on control of this resource as well.[19]

The balance of power is the most important among Great Powers, but regional powers can initiate conflicts that can disrupt the status quo. The most visible example for oil-influenced conflicts is the theory of petro-aggression. *"Petro-aggression is the idea that, under certain*

[18] The case study of Japan strongly backs the *H3* hypothesis. See more in Chapter 12
[19] See more in Chapter 10 and 11.

circumstances oil-exporting states are systematically more likely to act aggressively and instigate international conflicts. (Colgan [2013] pp. 3-4)"

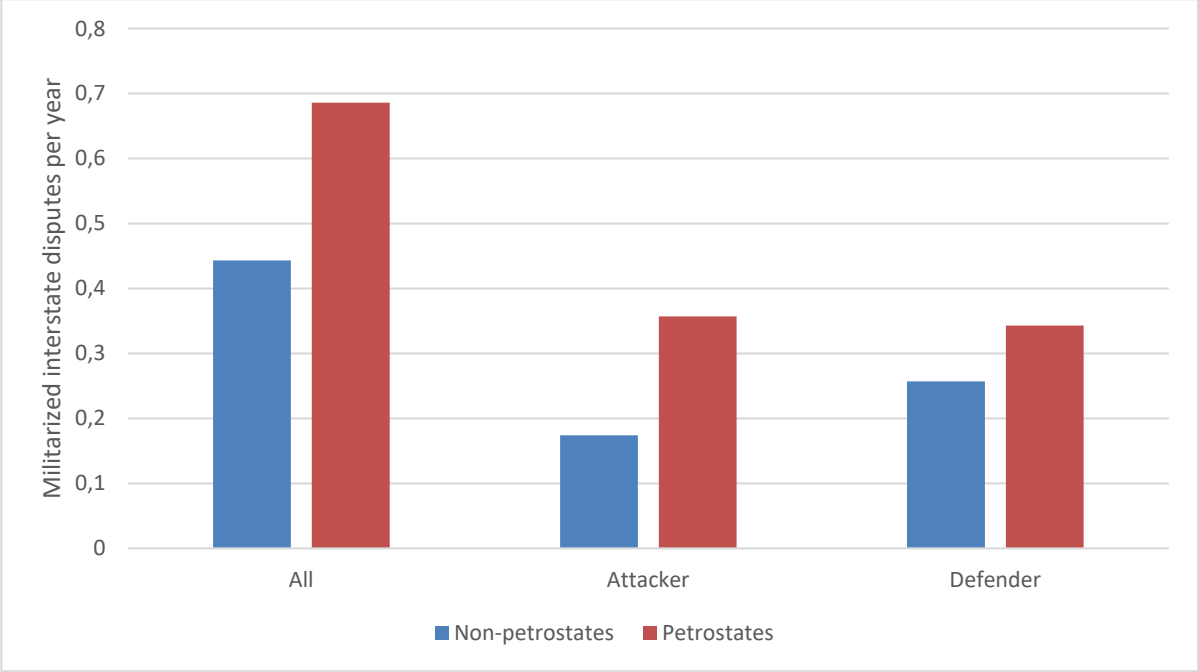
States, especially regional powers that had considerable oil wealth (i.e. petrostates) initiated militarized interstate disputes more often than states without this resource. Oil wealth provides a steady revenue stream to the leadership of a government, which it can spend on military equipment. Furthermore, petrostates have been considered important for the world economy since they provide an essential energy resource. Major Powers court petrostates to make sure that the crude oil will flow maintaining the status quo, meaning maintaining the position of the Great Powers in the system. Key allies of the United States such as Saudi Arabia has been enjoying the beneficial relationship it has with the United States because of its oil wealth. The Iranian independence movement and later the Iranian Revolution were major blows to the United Kingdom and to the United States as well. The strategic position of the country coupled with its substantial oil wealth makes Iran a very important regional power.

The decolonization period in the 20th century made several oil rich states independent from their former colonial overlords. The newly independent states with considerable oil revenues could keep their revolutionary leaders in power. These revolutionary leaders could depend on oil revenues as a major financial support to their rule since the international oil company (IOC) usually negotiated the terms of their production agreement with the leadership of the government. The oil revenues could be used for social welfare programmes in order to buy the support of the populace. In addition to that, the oil revenues can be used to elevate certain individuals in the government making a semi-fiefdom from the country instead of a democracy. The leadership of the government in order to enhance its international recognition has to find a Great Power ally. In the 20th century, looking for a Great Power ally was easy, because both the United States and the USSR was keen on making friends all over the globe employing indirect control methods for oil sources.[20] Both of these states could

[20] See more in Chapter 7.3.2

provide technical assistance and beneficial trade agreements to the petrostate in order to ensure their loyalty. Furthermore, the leadership of the petrostate in order to keep and enhance its position both nationally and internationally would purchase arms from its Great Power ally. This accumulation of military equipment with substantial oil revenues made the revolutionary leaders more war-prone than their international counterparts who depended more on tax revenues.

Figure 6. **Average Rates of International Conflict, Petrostates vs. Non-Petrostates, 1945-2001**

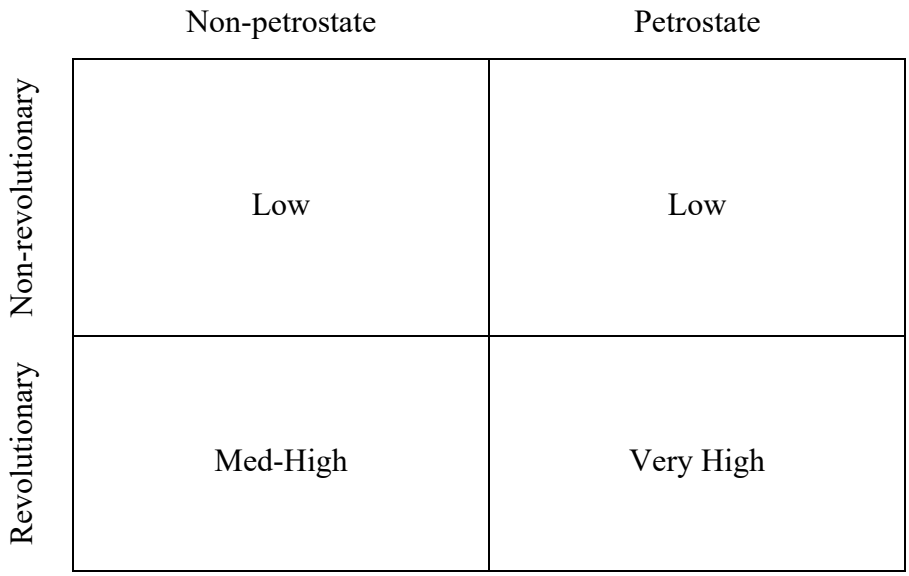


Note: Count of MID onsets per state-year. All differences between petro and non-petrostates are statistically significant.
Source: Colgan [2013] p. 8

The political economy side of balance of power (Table 4. and Table 5.) shows that the conversion of wealth into power influences states' actions. Oil wealth means constant flow of easily convertible revenue that can be rapidly converted to power. This means a more likelihood of an arms race between rivals. The conflicts of the 20th century in the Middle East showed how basically newly formed nations after decolonization could acquire sophisticated weapon systems which were deployed numerous times in order to achieve political objectives

via militarized interstate disputes. Saddam Hussein's Iraq initiated several conflicts against regional rivals thanks to its oil wealth.

Figure 7. **Empirical Expectations for States' Propensity to Instigate International Conflict**



Source: Colgan [2013] p. 36

The second half of the 20th century was full of conflict in the Middle East. Superpower allies of the states in the region offered military equipment and advisors (besides money) in exchange for access to oil. The shortage of oil supply has always been an important question for the world economy since oil became a sought commodity. As the 21st century progresses and as undeveloped conventional crude oil sources become harder and harder to find, the importance of reliable oil suppliers' increases. Competing for these allies can cause an inflow of advanced military equipment to oil rich states in order to woe them. This sophisticated equipment could increase the chance of conflict in the region by empowering ambitious autocratic leaders.

Furthermore, developing unconventional sources of crude become profitable as conventional oil supply decreases and demand does not decrease substantially. Risky, conflict-prone regions, such as Central Africa could serve as a potential ground for new crude sources. (French [2024]) So far, these undeveloped regions considered too risky to invest. Great power

sponsors can choose which local group they support in exchange for future exploration contracts, which could intensify the conflict in the region. The flow of increased military equipment not only bolster the conflicts, it can upset the balance of power as well. The growing influence of a Great Power could trigger balancing acts from other players of world politics. Proxy warfare and several demonstrative acts could follow.

An interesting question whether Great Power competition could re-emerge due to the scarcity of oil sources. A little more than a century ago, colonisation of the world was considered the modus vivendi among Great Powers. Colonisation ensured the supply of raw materials to the economies of the Great Powers and market for their products. Today, the world economy is much more open and free trade is one of the main feature of today's world order. (Ha [1992]) Basically all of the major powers joined the World Trade Organisation and the interconnectedness of the world economy makes it hard to believe that protectionism can re-emerge that would deny trading opportunities to any Great Power. However, the rise of national oil companies (NOCs) and their operations abroad indicates that states consider the free market and private players to be insufficient sources of a vital material resource such as oil. Therefore anticipatory actions needed to be taken as a form of balancing strategies to counter the possibility of losing access to oil and losing the status of a Great Power as *H3.* would suggest. The case studies and macro periods back the presence of these actions in spite of the openness of today's world economy.

7.3. Balance of Power Theory and Oil[21]

Energy security is a common phrase used widely among both the public and the academic sphere. However, energy security does not have a sole agreed upon definition. Realist IR theories mainly dealt with energy security based on two assumptions about the nature of states: *"states at minimum, seek their own preservation and, at a maximum, drive for universal domination (of resources)* (Waltz [1999] p. 10)", and (b) *"interstate politics is a perpetual interstate bargaining game over the distribution and redistribution of scarce resources.* (Jen-Kun [2010] p. 17)" (Bhattacharjee [2011]) Meaning that one element of state power is control over energy resources, which the state tries to maximize in order to widen/maintain its interests and minimize risks. (Yergin [2006] pp. 70-72)

Pioneers of complex interdependence also realized that states do not naturally trade with other states that pose threat to their national security simply because of profit incentive. (Keohane, Nye [2011]) In the world of ever changing interdependence the private sector encourages greater cooperation between the states even though there are several factors such as historical grievances, human cognitive mind-set of autonomy and territoriality and other historical residues trying to block the interactions between states. (Sterling-Folker [2009]) Therefore public officials resolve interstate disputes for the support of the private sector. (Mansfield, Pollins [2001] p. 841) Liberal logic suggests that economic forces lead to friendly relationship between states even between security threatening states. Economic profit drives the private sector to expand, but statesmen want to constrain them is an ahistorical and not factual oversimplification. Autonomy and independence concern both the public and the policymakers as well. (Bhattacharjee [2011]) Instead of liberal logic: *"National identities frame social debates about trade and monetary relations, especially fundamental choices about trade and monetary integration with other states.* (Abdelal [2005])" Neoclassical

[21] I use the categorization of anticipatory strategies of Kelanic, R. A. [2020]: *Black Gold and Blackmail – Oil and Great Power Politics* in length in chapter 7.3 and 7.4. The basis of my dissertation relies on his work for understanding oil related balancing strategies in these chapters.

realism does a good job of involving these factors into foreign policy analysis. The domestic sphere of each state differ from one another and they are heterogeneous with relation to different states as well. Interdependence and economic dependence such as dependence on oil suppliers is an important part of crafting foreign policy and grand strategy.

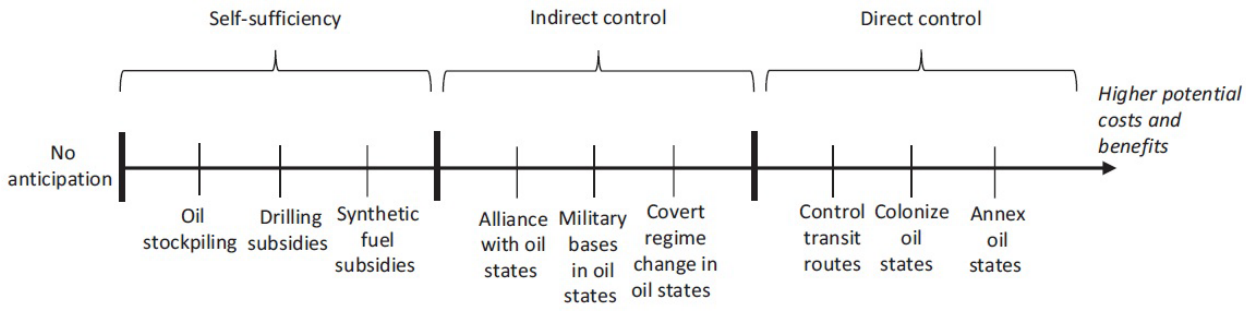
Energy security as part of the economy and part of national security have become more important in the second half of the 20th century. The economic aspects of energy security first appeared in 1947 in a national security document regulating state activities in the USA. (Gafurov [2010] pp. 178-182) Energy security meant a constant cheap access to crude oil in the 1980s (Deese, Nye [1981] p. 27) Today, there are dozens of definitions used by experts, international organisations, governments etc. highlighting the importance of the question. (Sovacool [2011] pp. 3-6) In spite of the variety of definitions, I use the definition below when I talk about energy security:

"Security of energy supply is the resilience of the energy system to unique and unforeseeable events that threaten the physical integrity of energy flows or that lead to discontinuous energy price rises, independent of economic fundamentals. (Nuclear Energy Agency [2010] p. 9)"

Oil as a major resource for both the economy and for militaries has certain coercive potential that other commodities do not possess. Dependence on this resource constitutes a threat to the national interest of Great Powers, ensuring access should be in the forefront of forming grand strategies. Systemic pressures such as increased dependence on one supplier and dependence of certain trade routes to ensure oil arrives from across the globe modifies the foreign policy of states. However, not just systemic pressures are interesting, but unit level factors as well. How do these pressures interpreted and handled at the highest levels of leadership. Great Power status comes with relatively great manoeuvrability on the international stage, but without taking into account the countries' dependence on oil, in situations where oil access is restricted, the choices could be restricted for the country as well. Hostile states or non-state actors could threaten to cut off oil supplies reducing both the absolute and relative power of the targeted state. In order to ensure their power in the international arena Great Powers engage in balancing strategies to counter the threat. These balancing strategies are usually cautionary measures in order to prevent a potential cut off

from oil. These anticipatory strategies have a wide range. (Kelanic [2020] p. 1) They can manifest in the form of increasing self-sufficiency (internal balancing), indirect control or direct control of foreign sources of oil (external balancing). Their cost can widely differ, but in general for the given state self-sufficiency is the least costly and direct control is the most costly strategy. Figure 8. shows the spectrum of these balancing/anticipatory strategies.

Figure 8. **Spectrum of Anticipatory Strategies**



Source: Kelanic [2020] p. 33

7.3.1. Self-Sufficiency

Self-sufficiency is the most prudent way to decrease the potential damage from an oil supply crisis. However, Great Powers may not be able to extract enough oil from domestic sources that would cover their needs.

Protectionist measures for the domestic economy, building up strategic oil stockpiles and funding R&D efforts to decrease the needs of oil are good strategies; however they may not be enough. Such measure could be coal liquefaction as well.

There are many ways to produce energy. However, if we ran out of oil in the short run, there is an already developed process to replace it with coal in order to make our cars, ships and other types of equipment currently fuelled by oil work.[22]

"*Coal liquefaction is a process in which coal is converted into liquid fuels or petrochemicals. There are several processes used to accomplish this task, the two most common being the "indirect route" and the "direct route".*

The indirect route is composed of 2 steps: First, coal is gasified with steam and oxygen to produce a synthesis gas (syngas), which is then cleaned to rid of dust, tar, and acid gases. The second step reacts the synthesis gas with a catalyst in the Fischer-Tropsch process, which converts the syngas into a range of hydrocarbon fuels such as gasoline, diesel and methanol. (Donev [2016]) "

The direct route is simpler. Coal is dissolved in a solvent at elevated temperature and pressure, and then it has to be combined with hydrogen gas and a catalyst in order to achieve its liquid form. It is more efficient than the indirect route; but further conversion is needed to use it as a transportation fuel. It produces a different product slate than the indirect method with naphtha being produced instead of diesel fuel. It is economically viable if the crude oil price per barrel stays in the $70-80 range. (Robinson [2009])

The discovery rate of new oil resources do not match the consumption rate of the world. (Maxwell [2006]) Alternative resources or ways of producing petroleum products can be seen as viable solutions for the oil hunger of today's world. Coal liquefaction is one of the simplest ways of producing oil products because the almost "forgotten" coal is a viable alternative for producing the wished fossil fuel.

There are a few reasons why coal liquefaction did not become a widely used method for producing petroleum products. First, there are a few efficiency problems with the process.

[22] There are many ways to replace oil and produce energy. These methods are not the focus of the dissertation. Coal liquefaction is described as an alternative to showcase the cost ineffectiveness of oil replacement methods.

Oil production from easily accessible wells (on land) are cost efficient. Even rudimentary technology was enough for the early pioneers to bring crude oil to the surface. Easily accessible coalmines are hard to find due to heavy mining of earlier centuries and environmental restrictions. Therefore, oil was easier to find in earlier periods, cheaper to produce and more "green" than coal.

Second, building plants that could carry out coal liquefaction process are very expensive. Furthermore, there are supply chain risks, vulnerabilities and uncertainties in making hydrocarbon liquefaction processes economically viable. (Höök et al. [2014])

The question is then, why this process got any traction when the problems with it are so visible. The answer lies in the volatile nature of the oil market and the strategic importance of the product. National security reasons are the most important factors behind coal liquefaction technologies. It is no wonder that countries such as Nazi Germany and South Africa (during the apartheid era) used the technology more extensively. These two countries did not have their own direct oil rich producing regions, and their dependency on the "black gold" had to be mitigated somehow, even if it meant an economically less efficient technology. So mainly political reasons are behind the coal liquefaction process, but the price of the oil plays a secondary role as well. As we know, the oil market is prone to huge price differences in relatively short amount of time. For example, the price of West Texas Intermediate Crude Oil traded on the New York Mercantile Exchange (NYMEX) was around $108 in 2008, and it fell under $30 in 2016. (Macrotrends.net [2018])

Figure 9. **Price of WTI Crude Oil per Barrel on NYMEX**

Source: Macrotrends.net [2024]b.

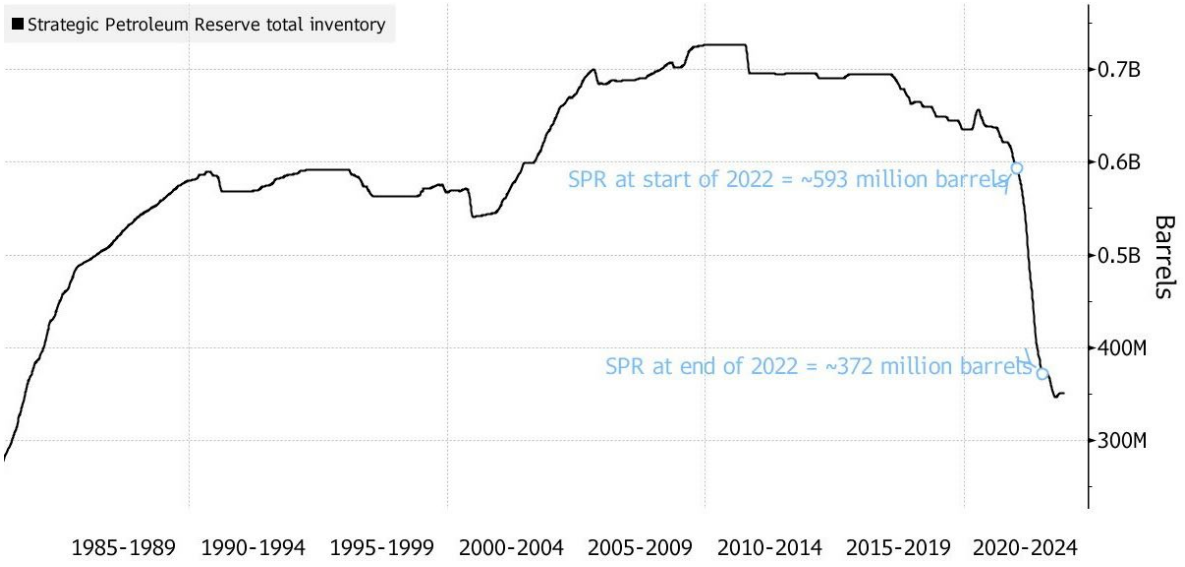
Within a decade, it is a huge fluctuation. An oil price above $100 seems expensive no wonder coal liquefaction becomes more economically appealing. A coal liquefaction plant that uses CTL technology becomes economically viable when the price of oil is around $55-60/bbl. (International Energy Agency [2006] p. 5)

The initial capital investment for a CTL plant however hinders the investment of such facility. The fluctuation of oil price also makes the huge upfront investment questionable. In the ten years between 2008-2018, only in six years was the oil price above the required $55-60/bbl in order to justify the plan. The direct method of coal liquefaction requires an even higher oil price ($70-80/bbl) (Macrotrends.net [2018])

Another method to increase self-sufficiency in time of a crisis is creating a strategic oil stockpile. Such stockpile is the USA's Strategic Petroleum Reserve.

One of the most important outcome of the crisis of 1973 was the creation of the US Strategic Petroleum Reserve (SPR). The U.S. government allocated specific salt caverns for containing oil in Texas and Louisiana. The creation of the SPR is necessary to mitigate the dependency of the United States because it is the largest single oil consumer in the world. The SPR has the capacity to store more than 727 million barrels of crude oil in the caverns. The withdrawal rate of the storage is around maximum 4.4 million barrels per day. President Bush proposed to increase the capacity of the SPR to 1.5 billion barrels by 2027. This decision was certainly influenced by the active American involvement in the Middle East at the time. The SPR held around 700 million barrels of crude in 2009. (Downey [2009] pp. 274-275)

Figure 10. **U.S. Crude Oil Emergency Stockpiles**

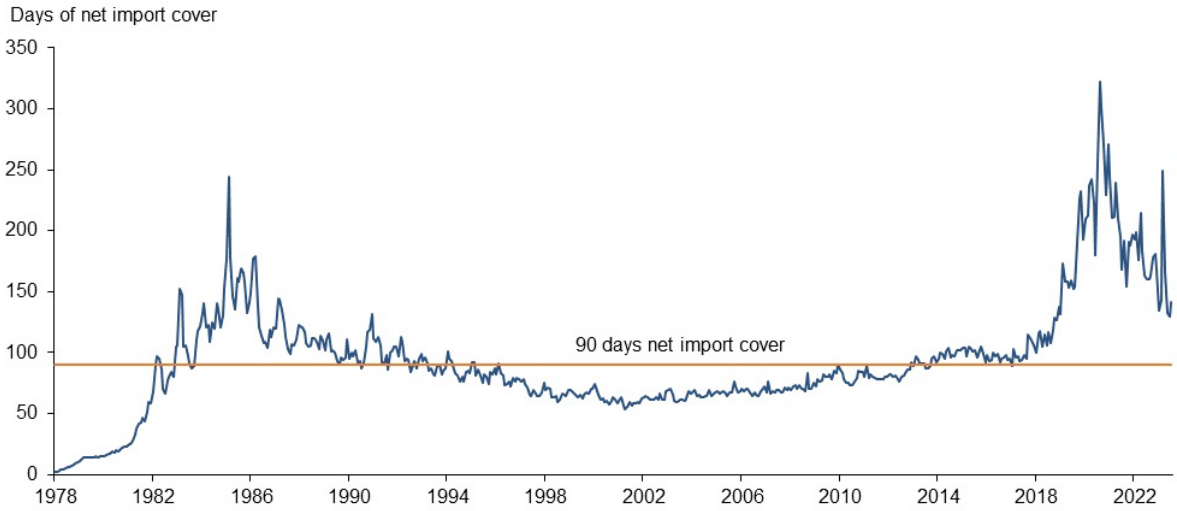


Source: Kassai [2023]

More than a decade after President Bush's proposal the SPR contained around 660 million barrels of crude oil in 2018. (Eia.gov [2018]) However, the SPR is used to broaden the US foreign policy decision making as the example of President Trump's approval of using the Strategic Petroleum Reserve in order to counter possible backlash from sanctioning Iran in 2018. (Meyer [2018]) Surging domestic shale oil production diminished the import burden, which led to increased U.S. oil exports since 2015. The increased US production made SPR a less important domestic safeguard, and more effective global tool for reducing price

volatility. The International Energy Agency (IEA) guideline suggests a 90 days net import cover for the SPR, but it has been over this threshold for a decade. (Golding [2023])

Figure 11. **SPR Exceeds IAE Guideline Based on Net Imports**



Source: Golding [2023]

The Biden administration used the SPR to counter the oil price spikes due to the Russian invasion of Ukraine in 2022. This was the largest series of oil releases from the SPR, aimed at reducing gasoline prices in the US. (Neely [2024]) Despite the massive reduction of oil stockpiles, the USA can still use the SPR to fund infrastructure or other federal programs if it needs to raise funds and not jeopardize its energy security.

The first major oil crisis showed the weakness of the United States, the second tested its measures taken since then. The Iranian Revolution started in October 1978 by strikes against the Western friendly Mohammed Reza Shah. The oil production of Iran plummeted from 5 million barrels per day (approximately five percent of total oil production in the world) to zero by December 1978. The coming month resulted in the Iranian Revolution and a hostile turn against the United States. The major outcome of the turn was the hostage situation that occurred in the U.S. Embassy in Tehran. Sixty-three American hostages were prisoners for 444 days. President Nixon, Ford and Carter tried to reduce the American independence of oil prior to 1979. President Carter tried to go the traditional way of responding to the hostage situation by severing diplomatic relations and embargoing Iran to deny revenues from the

hostile state. Despite the preventive measures, the price of oil more than doubled within a year globally. The conservation policies and incentives for renewable resources proved to be insufficient and the U.S. Synthetic Fuels Corporation was established to produce two million barrels of fuel from materials like coal within five years. (Council on Foreign Relations [1980])

The previously mentioned coal liquefaction technology appeared in the United States in the 1980s in order to counter the effects of possible oil embargos. The U.S. Synthetic Fuel Corporation closed its operations in 1986 due to the cheap oil prices after the 1979 oil crisis ended. (New York Times [1986]) These self-sufficiency efforts are important ways of a country to have more leeway when conducting foreign policy, however even in a case of an oil rich Great Power such as the United States they proved to be insufficient. According to *H2.* more control over oil equals a less restricted foreign policy, however the actions of the United States indicate that this hypothesis is only applicable when certain criteria is met.[23]

7.3.2. Indirect Control

If self-sufficiency strategies are insufficient to reduce the threat, indirect control (a form of external balancing) can take place. It can be more costly than self-sufficiency efforts and less reliable, but it can bring bigger results than internal balancing and more rapidly as well. Indirect control seeks to establish strong relationships with foreign suppliers short of actual military control. Through diplomatic and/or covert means, security partnerships could be established between Great Powers and major oil producer actors. These partnerships are closer than regular trade relations since it seeks to ensure that oil flows to the close partner instead of the adversary (regardless of market forces). Since oil vulnerability is nearly impossible for Great Powers (and their oil-importing allies) to counter with self-sufficiency improving strategies, indirect control is very common. One of the most notable example of

[23] More about these criteria in Chapter 11.4

indirect control is the relationship between Saudi Arabia and the United States. This long lasting alliance is mutually beneficial because the USA gets one of the major producers of oil as an ally, while Saudi Arabia enjoys the friendship and assistance of the world's strongest military and economic power. Compared to direct control and self-sufficiency efforts, indirect control is the easiest asset to lose. Alliances can break up and an alliance with a major oil supplier can end rapidly creating a huge exposure for oil coercion in a relatively short amount of time.

H1. Every Great Power had access to the majority of the proved oil reserves since the Industrial Revolution does not require Great Powers to ensure their oil supply through domestic means, but it indicates that Great Powers can make and maintain indirect (and if necessary direct) control strategies in order to counter the coercive potential of an oil crisis.[24] The example of the 1973 oil crisis on the alliance of Saudi Arabia and the USA is a great example to show that even though the USA were among the punished states, Saudi Arabia continuously supplied US troops in Vietnam with oil. (Wesseling [2000] pp. 165-168)

7.3.3 Direct Control

Direct control strategies the most secure and most expensive form of acquiring security from a potential oil crisis. Direct control was the name of the game to secure markets for centuries. Annexation, colonialization of territories and controlling trade routes are the strongest ways to deny any coercive potential from oil producers. It requires military power and "boots on the ground" to secure commodity and oil supplies through forceful ways. Direct control is very expensive both on the states' budget and on its soft power as well. Capturing resources via soft or hard power is a difficult question to evaluate, because regardless of soft power usage to acquire strategic commodities, it influences the hard power capabilities of the states. (Nye [1982] pp. 126-128) Aiming for hegemony threatens other Great Powers that might

[24] Table 19. shows the reserve numbers of Great Powers in each macro period.

seek to undermine the power projection capabilities of the state through overt and covert means. Striving for self-sufficiency is not a belligerent act, however annexing and colonizing other states in the 20th and 21st century is a very risky behaviour. Great Powers might engage in direct control strategies when all else internal and external balancing (self-sufficiency and indirect control) strategies fall short of driving down the coercive potential of an oil shortage. Japan's invasion of the Dutch-East Indies in 1941 is a clear example when all else failed and the very existence of Japan as a Great Power was at risk, the state resorted to a very risky direct control strategy.[25]

Table 9. **Summary of Great Power Anticipatory/Balancing Strategies**

CHARACTERISTIC	**SELF-SUFFICIENCY (Internal Balancing)**	**INDIRECT CONTROL (External Balancing)**	**DIRECT CONTROL (External Balancing)**
Logic	Reduce Reliance on External oil	Keep oil in "friendly hands," away from adversaries; enhance cooperation	Directly annex foreign oil and transit routes
Means	Domestic Policy	Threats, military aid, force if necessary	Military force
Costs and risks	Low	Medium	High
Oil security benefits	Limited	Potentially large, but not guaranteed	Large, guaranteed
Balancing strategies	Stockpiles, alternative fuel subsidies, conservation	Security Agreements, arms sales, basing	Territorial conquest, controlling sea-lanes
Examples	Strategic Petroleum Reserve of the USA, Green New Deal	USA-Saudi Arabia alliance, Toppling of Mohammed Mossadegh in Iran (Operation Ajax)	Japan's invasion of the Dutch-East Indies, 1956 Suez Canal Crisis, Iraq's invasion of Kuwait

Source: Based on Kelanic [2020] p. 39

[25] More about Japan in Chapter 12. where one of the strongest backing of *H2* and *H3* is examined in detail

7.4. Systemic Determinants of Vulnerability[26]

Realist theories place an enormous emphasis on systemic forces that determine state actions. Neoclassical realist theory filters through these systemic pressures on unit level factors such as leader images, strategic culture, state-society relations and domestic institutions.[27] Independent systemic forces determine vulnerability to coercion that constitutes systemic pressures that states try to counter with balancing strategies. One of these factors is petroleum deficit, meaning the gap between petroleum production and consumption of a state. (Kelanic [2020]) The bigger the difference between the two numbers the bigger the exposure of a state to outside pressure. The above-mentioned factors concerning oil which is a special commodity since it is a highly valuable asset for the economy and for the military as well, a huge petroleum deficit can greatly endanger national security. That is why the *H2* proposes a causal link between the direction of a state's foreign policy with its oil richness.

Neoclassical realism determines that the main driving force behind the changes in international relations is the relative power of international actors. (Rose [1998]) Petroleum endowment can change by all three anticipatory strategies (self-sufficiency, indirect control, direct control) quite rapidly. Therefore, changes in the petroleum deficit of a state can bring major changes in the international balance of power. How to interpret these relative changes and which policy options public officials choose vary among eras. That is the reason why the case studies are chosen to show how a country adept to the oil situation in different eras.

The petroleum deficit alone cannot justify certain balancing strategies states adopt. The second important systemic pressure that comes from the changing relative power of actors (be it state and non-state actors) is the threat to imports. (Kelanic [2020]) The potential deprivation of current oil sources either using soft or hard power pushes states to balance

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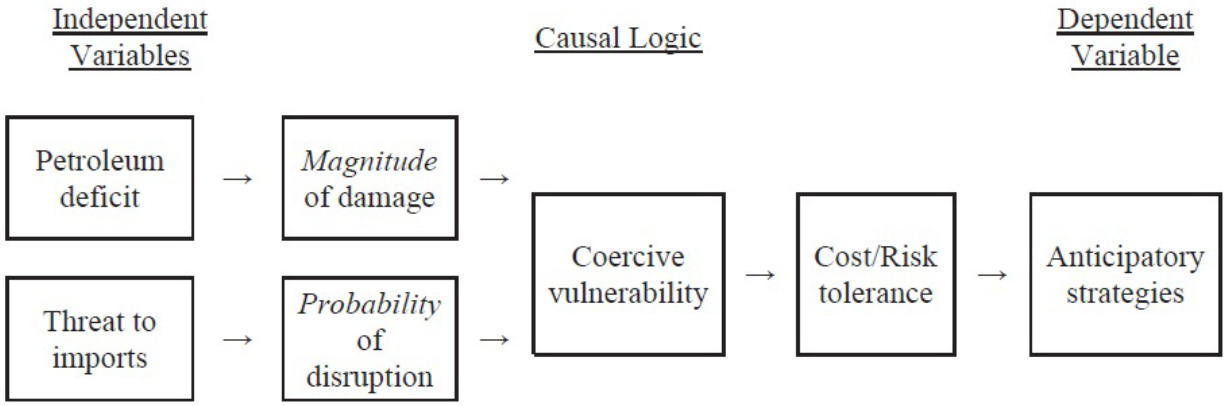
[26] I use the categorization of anticipatory strategies of Kelanic, R. A. [2020]: *Black Gold and Blackmail – Oil and Great Power Politics* in length in chapter 7.3 and 7.4. The basis of my dissertation's understanding of oil related balancing strategies relies on his work in these chapters.
[27] See Figure 4.

against a potential increase of the petroleum deficit. And at the same time balancing strategies can be modified by a decrease in these two factors (petroleum deficit, threat to imports) with either applying a softer balancing strategy or no longer engaging in any balancing strategy when the state deems them unnecessary.

Figure 12. **Forces Behind Forming Anticipatory Strategies**



Source: Kelanic [2020] p. 24

The interpretation of independent variables filters through the unit level factors of the state that determines policy outcomes.[28] The higher the risk of losing relative power in the international system the higher the chance that state will pursue more costly strategies. The theory establishes that direct control is the most costly strategy granting the most benefits, therefore a high probability of increasing petroleum deficit and/or a major increase in threat to imports determines that the state will opt for a riskier, costlier strategy to keep its relative power in the system. The lower the vulnerability the less expensive and less risky balancing options will be chosen according to the theory.

[28] Figure 4. shows the model of neoclassical realism.

Table 10. **Independent Variables and Predicted Outcomes**

Petroleum Deficit	Threat to Imports: High	Threat to Imports: Low
High	High vulnerability: direct control	Medium vulnerability: indirect control
Low	Medium vulnerability: indirect control	Low vulnerability: self-sufficiency

Source: Kelanic [2020] p. 42

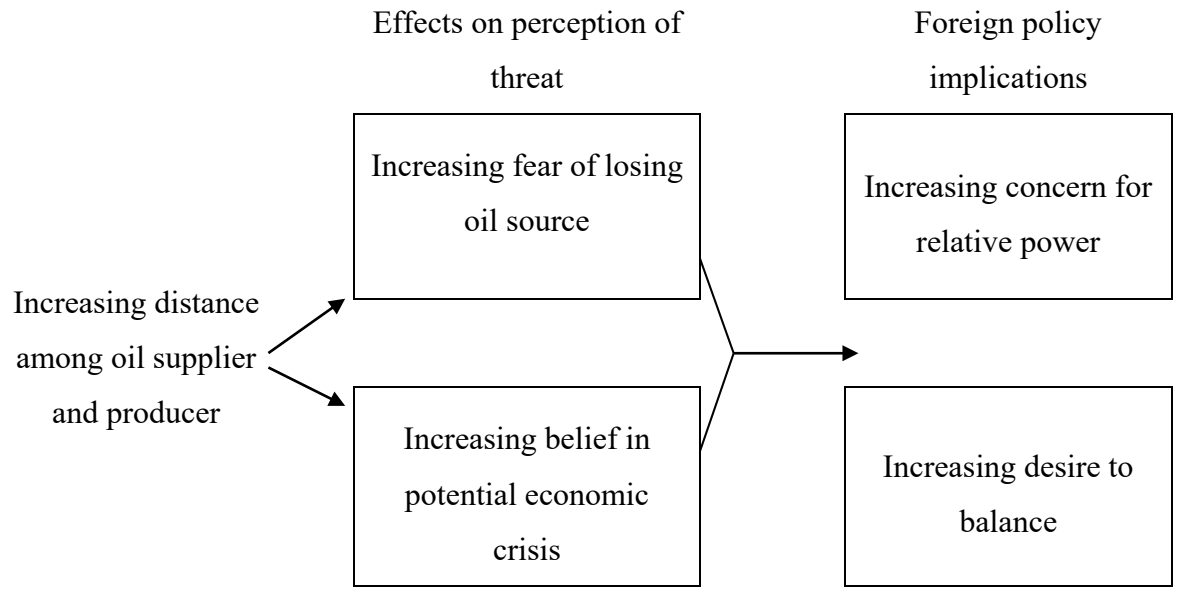
If *H2*. is correct then a Great Power will pursue a riskier option when its precious status as a Great Power is endangered and a less riskier option when its place in the system is secure. The actions of the United States during the oil crises of the 1970s provide an example how its anticipatory strategies worked during the crisis and how it's actions after the 1970s played out. I chose the case study of the USA for that reason, because actions of arguably the most important state in the 20th century provide a great picture how oil coercion work. On the other hand, the most riskiest option was pursued by Japan during the 1940s. High vulnerability to imports and high petroleum deficit were both present with lack of sufficient domestic petroleum sources and with the sanctions by the United States. As a result, Japan considered its status as a Great Power to be a threat, and chose to invade the Dutch East Indies to secure oil supplies.[29]

[29] See Chapter 12.1

7.5. Unit Level Determinants of Vulnerability

Neoclassical realist theory predicts that unit level factors influence foreign policies of states as well. The greater the distrust among states the greater the fear of state leaders to secure their oil supplies. Therefore, a change in the balance of power and/or a change in the alliance structure of a state affects the accessibility of a state to its oil sources.

Figure 13. **Summary of the Causal Links Between Distance, Threat and Foreign Policy**



Source: Based on Haas [2005] p. 18

Both systemic and unit level forces are important to understand how balancing strategies are devised and neoclassical realism as a theory for analysing foreign policy is a valuable tool in international relations. The theoretical background of the different IR schools of thought and the comprehensive theoretical explanation of neoclassical realism, balance of power and oil is inevitable to conduct research on the topic. The following chapters will incorporate the history of oil, the characteristics of the macro periods and later the case studies. With the theoretical and historical explanation of the research topic I intend to prove or falsify the proposed hypotheses.

8. Brief History of Oil[30]

In order to understand why oil is so important in today's world, we have to look at the history of this valuable commodity. Energy and human development are deeply intertwined throughout thousands of years. First, humans used their own physical strength, later the power of animals to perform physical tasks. For heat, mainly the abundantly available wood was used up until the invention of the steam engine at the beginning of the 18th century. The industrial revolution required a more efficient resource: that was the coal. Trains and ships powered by coal were more efficient than any other means of transportation before. Coal produced four times as much energy as the same amount of wood, but as more and more of it was used; its polluting attributes became much more visible. As newer technologies started to spread around the globe, oil emerged as the dominant energy source of the 20th century. (Ektinteractive.com [2018])

8.1. The Emergence of a New Industry

The history of the oil industry can be split into five period. The first period was between 1859 and 1911 when this new industry started to take shape. The need for a new energy source was not so apparent in the case of coal in the mid-19th century. Locomotives with steam

[30] Earlier version of Chapter 8. and the case studies (Chapter 11, 12, 13) were part of the Master's thesis of the author: Mezei, A. [2018]: *The Impact of Oil on Foreign Policy in Different Types of Economies* University of Debrecen, Institute of World Economy and International Relations.

engines were the top technology at the time. Up until the beginning of the 20th century, the environmental concerns regarding coal did not gain too much traction.

Another aspect of life made oil a needed commodity. Artificial lighting was mainly produced from animal fats such as beeswax candles or whale oil. The problem with this mode of lighting is that the best quality of lightning was produced by whale oil that lead to the overfishing of these animals, driving the price of whale oil into the luxury product category. (Dvorsky [2012])

Easily available crude oil that seeped to the surface was rarely used around a globe to anything before the second half of the 19th century. However, people used crude oil since at least 4,000BC. In the Middle East, it was used to waterproof boats, in China it was used for lamps and as heating oil, in Europe it was used as a weapon known as Greek fire around 600AD. In the mid-19th century, crude oil was discovered to be able to be distilled into lamp fuel at the Yale University. (Downey [2009] p. 1)

This discovery was encouraged by the scarcity of whale oil prices. It started the development of the modern oil industry. The alternative to whale oil: kerosene induced another gold rush like phenomenon in America. The price of a barrel of crude oil was $18 in 1860 (Downey [2009] p. 3). If we convert it to 2024's USD term, it is over $680-700. It is not a surprise that oil was named the "black gold" by the public. The first oil well which was built by Colonel Edwin Drake, yielded 15 barrels a day.[31] The young oil industry seemed to be the place to make a fortune within a short amount of time. However, rampant overproduction, depletion of easily available reservoirs quickly drove down the oil price. Within a year, the price went down from $18 to 10 cents per barrel (between $3-4 in 2024's USD term). (Downey [2009] p. 3)

[31] Other oil producing methods and wells were built throughout the centuries, but conventionally Drake's well is considered to be the beginning of the oil industry since it was drilled by machines and later inspired industrial scale oil production in the region.

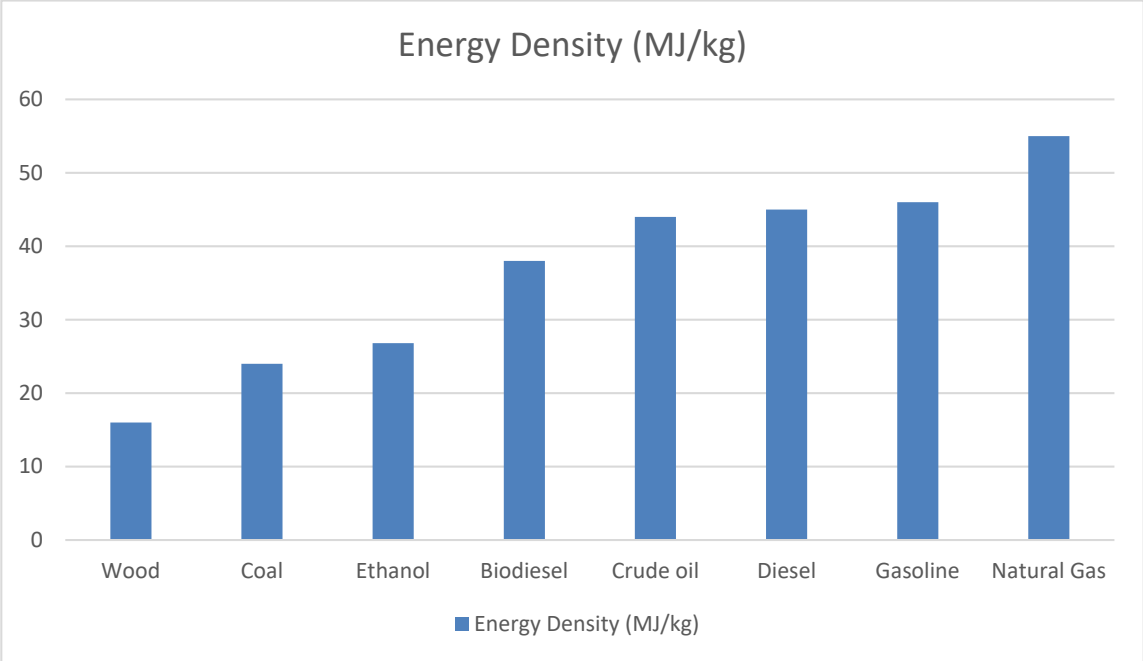
The Standard Oil Company headed by John D. Rockefeller consolidated and monopolized the oil industry. In order to crush the monopoly of the Standard Oil, it was split into several firms in 1911 with the help of the Sherman Antitrust Act of 1890. (The Learning Network [2012])

The nature of the oil market was already present in the beginning of the 20th century. Namely, that this highly valuable commodity has a very volatile price due to the supply side of the market. The demand for oil has been driving national and international oil companies to look for more resources, but the price of the commodity mitigates the development rate of new oil sources.

8.2. The Early Conquest of Oil

The conquest of oil began in the USA as I mentioned in the second half of the 19th century. Oil had to "defeat" coal and other energy sources in order to be commercially viable. Originally, the first famous automobile the Ford T Model was designed to run with oil and ethanol as well. The early automobiles of the 20th century were able to utilize alcohol as fuel, because it was a more widespread technology than using distillates of oil. Furthermore, it was more easily accessible since any vegetable could be fermented to produce ethanol. (Bose [2015]) In the 21st century, the question of alternative fuel sources brought biofuel such as ethanol to the forefront once again. There are two problems with biofuels when it comes to replacing oil as a transportation fuel. First oil is a very energy dense product meaning we need to extract and use less from this commodity to reach the same destination with a vehicle. It has a better conversion of energy as Figure 14. shows.

Figure 14. **Fuel Energy Density of a Variety of Different Fuels**



Source: Donev et al. [2018]

Furthermore, the production of biodiesel or ethanol requires land that is globally a scarce resource and could be better used for food production. Natural gas seems to be a more useful resource that can replace oil efficiently, but natural gas is a non-renewable resource as well that can be used much more efficiently to replace coal powered power plants in order to reduce CO_2 emissions. (Johansson, Hedenus, Sterner [2015] p. 424)

Significant discoveries occurred around the globe soon after the initial ones in America. These early major discoveries have been important oil producing areas since. The earliest discoveries were made in Russia, Middle East and in Indonesia. The United States, Russia, and the Middle Eastern region remains a major producer up to this day, Indonesia's (former Dutch East Indies) relative importance declined since then. However, in the first half of the 20th century during the era of the two world wars, these initial oil-producing regions shaped foreign and military policy decisions.

The relevance of these oil wells soon proved to be very important factors in the First World War since machinery started to play a major role on the battlefield. The naval race in Europe

before the First World War required nations to develop better battleships, which meant that a conversion had to be carried out from coal to oil powered engines. The oil-fuelled ships were faster and could operate longer than before. (BBC.com [2015])

This transition had a strategic impact on foreign policy priorities. Since the modern battleships of the early 20th century were powered by oil, the Great Powers either had to have their own supplies or had to secure reserves in order to make their navy and military operational. The British got their oil primary from Persia as a result of the UK government controlled Anglo-Persian Oil Company (the predecessor of today's BP). This meant that the British had to assign special attention to the Middle East since losing this territory would have meant to lose the naval strike capabilities of the island nation. Not just the UK, but Japan also suffered from relative shortage of oil sources, and Germany as well. It is not a surprise that German scientist were keen to develop a technique which could create oil artificially. Germany lost its colonies after the First World War and it had no major oil producing wells in its possession. In order to counter this strategic disadvantage coal liquefaction was developed. This process use coal as an input to convert it into oil and is described in Chapter 7.3.1. (Lazurko [2018])

8.3. The Oil Industry Takes Over

One of the factors why the oil industry could easily provide relatively cheap products is the successful attempts of the oil industry to find oil resources. Especially in the first half of the 20th century, oversupply posed a great threat to prices until demand caught up. Major international oil corporations (IOCs) controlled large part of the crude oil production and refinery capacity around the globe. These corporations such as ExxonMobil, Chevron, BP, Royal Dutch Shell, ConocoPhillips and Total got concessions from foreign governments to produce oil on their territories. (Seekingalpha.com [2018]) Today, IOCs still play an

important role in oil production, especially in developing unconventional oil resources. The IOCs in a lot of cases partner up with national oil companies (NOCs) to provide technical assistance in a project that requires special techniques and expertise.

The IOCs could easily negotiate these concessions with third world countries in the first half of the 20th century. There were numerous reasons for this phenomenon. First, before the end of the Second World War European states still had colonies that proved to be obedient to companies from the Western World. Second, these third world countries had hardly any revenues and the oil business was very profitable. It is enough to think of the case of Saudi Arabia where the high temperature weather and the desert makes large parts of the country undesirable for investments. Third, the concession type agreements ensured that the know-how was delivered by the IOCs therefore the countries where major oil sources could be found did not have to possess the necessary equipment and engineering background to carry out major operations like setting up pipelines or refineries. Nowadays NOCs are capable of developing conventional oil sources, but since these sources are harder and harder to find, oil companies look for previously undesirable locations for oil. The reputation of IOCs improved since the 20th century when they were viewed as the tools of oppression by exploiting the resources of the host countries' land. Fourth, the oil business needs low skilled workers as well that a developing nation can provide and it lowers unemployment in the country that produces favourable effects on the welfare of the citizens. The concession agreements split the profit between the IOCs and the Government this proved to be a reliable method up until the time of the decolonization period. Then problems such as the Abadan crisis took place when Iran took control over the UK owned Anglo-Iranian Oil Company (later known as BP). The United Kingdom retaliated with a trade embargo on the Persian oil. The crisis ended when the British and the Americans helped the formerly removed Shah, Mohammed Reza Pahlavi back to power. (Speller [2003]) As this example shows, Western governments made sure that their oil sources were secure even with quite severe actions in the past.[32]

[32] See Figure 8. about the range of balancing strategies connected to oil.

8.4. Oil Crises and the Future

Some nationalization took place and national oil companies emerged in the world during the decades following the Second World War, but major disruption did not happen up until the 1970s. The two oil crises that occurred in the 1970s were a major wake up call for the world. Oil was used as a coercion tool and it clearly showed that this commodity is different from the others. Both the first oil crisis in 1973 and the second in 1979 were caused by political decisions. (Kettell [2018])

After the two crises, oil was seen as a different commodity and many believe, it is a cause of wars in the Middle East and a major drive for Western and other powers to control or influence the oil producing regions of the world.

An oil analyst named Charley Maxwell summarized another important problem related to the oil consumption and production:

"*In 1930, we found 10 billion new barrels of oil in the world, and we used 1.5 billion. We reached a peak in 1964, when we found 48 billion barrels and used approximately 12 billion. In 1988, we found 23 billion barrels and used 23 billion barrels. That was the crossover when we started finding less than we were using. In 2005, we found about 5-6 billion, and we used 30 billion. These numbers are just overwhelming.* (Maxwell [2006])"

As we could see the consumption of the resource and the discovery rate of the new oil sources made a tremendous shift during the 20th century. On the one hand, the supply of oil is still secure in the 21st century; however, innovation has to be carried out in the future to replace this commodity because the world will run out of it eventually. The question that remains today, how this crucially important substance has an effect on the foreign policy of a country. The answer can provide us with knowledge that is necessary to counter any negative implications of what a dependency could cause in the near or far away future.

9. National Interest and Oil

National interest can be defined in many ways, but in this study, I use an empirical-inductive method. The central decision makers' behaviour, actions and statements define the national interest. The behaviour, action and statements of leaders must be related to general objectives, and the ordering of preferences must persist over time. (Krasner [1978] p. 35)

Through case studies, I identified in all the examined states, access to oil resources constituted a national interest. As the realist paradigm predicts material capabilities influence the power of the state, therefore access to a finite resource should be among the most important objectives of states. Great Powers had different levels of resource endowment. However, according to *H3.* through diplomatic and military means all great powers should achieve sufficient access to resources that enable them to project power at the level required to be considered one. In the macro periodization section of the paper I highlight the access to oil of the major players.

Oil resources in particular were hard to find in the early 20th century. The highly concentrated oil production areas were valuable to have access to. Self-sufficiency have been hard to achieve, only the USSR and the USA were among the Great Powers that could reach that level in certain times. Diversification of supply and an accompanying alliance policy had to be developed and maintained by the Great Powers in order to keep their power and prestige. Usually raw materials are different from other commodities because their cost is generally only a small percentage of the final products' selling price. Oil however is different. Crude oil accounted for 85% of the total selling price of heavy oil, 55% of home heating oil and 40% of gasoline in the 1970s. Compared to that, wheat only accounted for 18% of the final selling price of bread, iron ore only 9% of steel and bauxite only 7% of aluminium. (Krasner [1978] p. 39)

Furthermore, oil as a commodity tends to have a larger fluctuation in price than other more stable commodities. Typical reasons for oil price fluctuations:

- Supply and demand forces affect the price. In time of war or global pandemic the volatility is extremely high
- Introduction cost and storage capacity
- Political problems in oil exporting countries
- Adjustment decisions of organisation of oil producing countries such as OPEC artificially influence the supply. (Li [2022] p. 774)

9.1 Oil Reserves

The exact calculation of oil reserves are hard to define. There are no commonly accepted definitions, industry groups, regulators, governments etc. have their own set of criteria. The estimated oil reserves published by NOCs or IOCs often change due to political or other pressure. An old oil industry joke demonstrates the discrepancies:

"[an oil company executive was] interviewing as potential employees a geologist, a geophysicist, and a petroleum engineer (the kind that estimates reserves). One question asked was, "What is two times two?" The geologist answered that it was probably more than three and less than five, but the issue could use some more research. The geophysicist punched it into a palmtop computer and announced that it was 3.999999. The petroleum engineer jumped up and locked the door, closed the window blinds, unplugged the phone, and asked quietly, "What do you want it to be? (Deffeyes [2005])"

The main sources of reserve figures are usually oil industry periodicals or independent assessments that may differ from each other. The estimates mainly serve internal management and external regulatory purposes. The main reasons are:

- Statutory regulations, which oblige companies to report them. Companies may overstate or understate their reserves to reduce taxes or maximize company value within the boundaries of the law.
- Oil reserves can serve as a collateral security for bank loans. This factor encourages overestimating reserves such as Mexico admitted to overstating oil reserves to increase its collateral for debt. (Campbell [1997])
- International oil companies publish their claimed equity oil holdings for financial and trade journals to measure their ranking. These figures are often inconsistent.
- Internal reporting to stockholders are generally unbiased and conservative. However, management could skew the reporting; therefore they are not 100% reliable.
- Explorationists tend to exaggerate and reservoir engineers often underreport figures for budgetary and planning purposes.
- Figures can be stated by government officials or company representatives for specific reasons. Usually politically motivated statements inflate reserves, but understatements could occur as well. (Haider [2000] p. 311)

The proved reserves (or commonly used American terminology: "proven reserves") was first introduced by the American Petroleum Institute (API) in 1925: *"the volume of crude, which geological and engineering information indicate, beyond reasonable doubt, to be recoverable in the future from an oil reservoir, under existing economic and operating conditions.* (Porter [1995])" This definition was debated extensively by institutions and the oil industry worldwide. However, generally every definition is approximately not significantly different from the API's definition. Furthermore, there is the different classification of the USSR reserves that makes reserve numbers harder to quantify and compare. Table 11. below shows the comparison of different types of classifications.

Table 11. **Comparison of Oil, Gas Reserve, Resource Classifications**

<table>
<tr><th colspan="3">USSR</th><th colspan="4">USA, Canada, Saudi Arabia</th><th>France, Germany, Netherlands</th><th>North African Nations</th></tr>
<tr><td rowspan="4">Reserves</td><td rowspan="3">Explored</td><td>A</td><td rowspan="4">Identified</td><td rowspan="3">Demonstrated</td><td>Drilled, developed</td><td rowspan="2">Measured, proved</td><td rowspan="2">Proved</td><td rowspan="3">Proved</td></tr>
<tr><td>B</td><td>Undeveloped</td></tr>
<tr><td>C1</td><td>Indicated</td><td rowspan="2">Probable</td><td rowspan="2">Probable</td></tr>
<tr><td>Preliminarily evaluated</td><td>C2</td><td colspan="2">Inferred</td><td rowspan="3">?</td></tr>
<tr><td rowspan="3">Potential Resources</td><td>Prospective</td><td>C3</td><td colspan="4">Possible</td><td rowspan="3">?</td></tr>
<tr><td rowspan="2">Predicted</td><td>D1</td><td colspan="4">Hypothetical</td></tr>
<tr><td>D2</td><td colspan="4">Speculative</td></tr>
</table>

Source: Krylov, Boksernan, Stavrovsky [1998] p. 23

The oil industry generally use the *trust but don't verify approach*. Oil & Gas Journal, World Oil and the BP Annual Statistical Review mostly uses this approach that involves contacting oil producers and asking them for their proven reserve numbers. If the producer do not provide a number, the previous year's number is used. (Downey [2009] p. 301). The figures are not consistent because:

- Estimation is imprecise, and it requires personal intuition and judgement.
- IOCs and NOCs use different definitions and classifications of reserves fit to their own needs.
- Different economic constraints are on publicly traded, private or national oil companies.

- Circumstances and motivations for reporting high or low reserves influence the reported numbers.
- Figures may not be up to date since the trust but don't verify approach may use numbers from last year without revision. (Haider [2000])

Difficulties aside, researchers can use statistical data to illustrate their points. However, this data can be up to interpretation and is not as precise as researches would like it to be. In this dissertation after I listed the possible reporting discrepancies among datasets, and I work with the existing data to prove my hypotheses. In the macro period section of the paper I aggregate the data and in Table 19. intend to answer *H1.*, namely that the majority of proved oil reserves were under the direct or indirect control of Great Powers. Furthermore, Chapter 10.2.1. shows how France struggled to secure its oil supplies and resorted to desperate measures backing *H2.* In addition to that, the loss of oil supplies and colonial empire diminished the perceived and actual power of France, that after the end of the Second World War it lost its tier 1 Great Power status even though it developed nuclear weapons and sits on the UN Security Council as a permanent member. The loss of control over oil sources contributed to the loss of Great Power rank backing *H3.*

10. General Overview of the Macro Periods

In the different macro periods, access to oil resources influenced the balance of power differently. The effects of accessibility of this resource differed from time to time. In the macro period, I describe the context of oil and the balance of power. The chapter relies among several other sources on the work of Matthieu Auzanneau's [2018] *Oil Power and War – Dark History* and incorporates his periodization with modifications. The basis of the periods are like the seasons of the year. First and second is spring, full of oil discoveries and oversupply. Third is the summer, the beginning of the decline of conventional oil sources from the 1970s. Fourth is the autumn as supply shortages and aging conventional oil supplies start to forecast problems. Fortunately, we have not reached the winter season, but the end of the era of cheap oil is close. (Auzanneau [2018])

10.1. First Macro Period 1918-1945

The period between the end of the First World War and the end of the Second World War was the era of expansion of the oil industry. During the First World War as warring nations used more numerous and more sophisticated machines it became clear the oil is essential for the war effort. Therefore, a Great Power's ability to both defend its interests and project power depends heavily on the access to this resource. The major Great Powers of the previous centuries such as the United Kingdom, France and Germany found themselves without major oil sources on their mainland. The United States and the newly formed Soviet Union was well endowed with oil sources, which they developed in order to satisfy their countries' need for energy. The Soviet Union employed Western oilmen to revive its oil industry after the

war. (Gillette [1973]) The USSR closed the door to Western investments in its oil industry and annulled previous agreements after Lenin's death in 1924. However, engineers and materials destined for strategic sectors (such as oil) was sought out in the first five-year plan. (Hanighen [1934])

The description of macro periods cannot be done without analysing the polarity of each period. The evolution of the concept of polarity is fairly recent. Only after the Second World War realists started to describe international relations in terms of polarity (i.e. the number of Great Powers). (Keersmaeker [2017] p. 12) Later, the classification of polarity in the early 20th century was deemed multipolar or even tripolar by scholars. (Lasswell [1945] pp. 23-26; [1948] pp. 877-890; Lerner and Lasswell [1951] pp. 102-105; Schuman [1948] p. 414; Schweller [1998]) One of the simplest description of polarity is given by Rosecrance: *"Multipolar, bipolar, and unipolar international systems may be distinguished as follows: multipolarity is a multi-bloc or actor system; bipolarity is a two-block or actor system; unipolarity is a one-block or actor system. Unipolarity requires in addition a single directorate or the preponderant bloc.* (Rosecrance [1963] p. 234)"

The first macro period can be described as a multipolar international system. Multiple actors, Great Powers were present with similar power levels capable of waging war against each other. The resource endowment of these Great Powers however was different. Both the United States and the Soviet Union were in possession of huge raw material on their mainland while Italy, Germany, Japan, France and the United Kingdom did not possess such great quantity of easily accessible resource.

Table 12. **World Oil Reserves in 1920 (mb)**

USA and Alaska	7,000
Canada	995
Mexico	4,525
Northern South America, including Peru	5,730
Southern South America, including Bolivia	3,550
Algeria and Egypt	925
Iran and Iraq	5,820
South-east Russia, south-west Siberia and Caucasus	5,830
Roumania, Galicia and western Europe	1,135
Northern Russia and Saghalin	925
Japan and Formosa	1,235
China	1,375
India	995
East Indies	3,015
Total	**43,055**

Source: Stebinger [1920] p. 123

If my hypotheses is correct, the first macro period should show a clear action from all Great Powers to alter their foreign policies and their balancing strategies to enhance their access to oil. One of the key reasons for this behaviour is the lessons derived from the First World War. The Great War showed that the military and the economy of the Great Powers have to ensure access to vital resources in order to win a war of attrition. The new machineries used in the war, needed lubricants and fuels that are both made from crude oil. A shift occurred in the relative power of the most powerful nations due to the emergence of oil as an indispensable raw material. (Morgenthau, Thompson [2006] p. 127) The mainland territory of several Great Powers were insufficient in oil resources therefore either new territories needed to be conquered or the existing colonial empires needed to be defended more vigorously than before in order to ensure national security. *H1* is correct according to Table 12. In the first macro period Great Powers in fact had control (direct or indirect) over the majority of oil

sources in the world. The Great Powers in the first macro period used several actions to expand their oil sources, but altogether the known oil sources of the time were under the control of Great Powers. The level of control was not equal. Some states controlled more resources and had better access to it for example the USA. However, all engaged in activities in order to maintain and/or improve their access to this resource as I show in Table 13. This evidence suggest that *H2.* might not be correct since even oil rich Great Powers devised their foreign policy to expand their access to oil. Furthermore, in the case study of Japan and the USA, I further explain their balancing strategies and their consequences.[33]

Table 13. **Actions of Great Powers to Ensure Oil Supplies (1918-1945)**

	Great Powers (1918-1945)						
	USA	*USSR*	*UK*	*Germany*	*France*	*Japan*	*Italy*
Actions taken to ensure access to oil	Developing mainland oil sources, diplomatic actions in the Near East	Developing mainland oil sources, importing Western know-how	Increased attention on the Near East and Persia	Coal liquefaction and focus on Romanian and Southern Caucasus oil fields	Diplomatic actions to ensure access to Middle Eastern Oil	Diverting attention to the Dutch East Indies to secure oil supplies	Developing oil resources home, Africa and Middle East

Source: Edition of the author

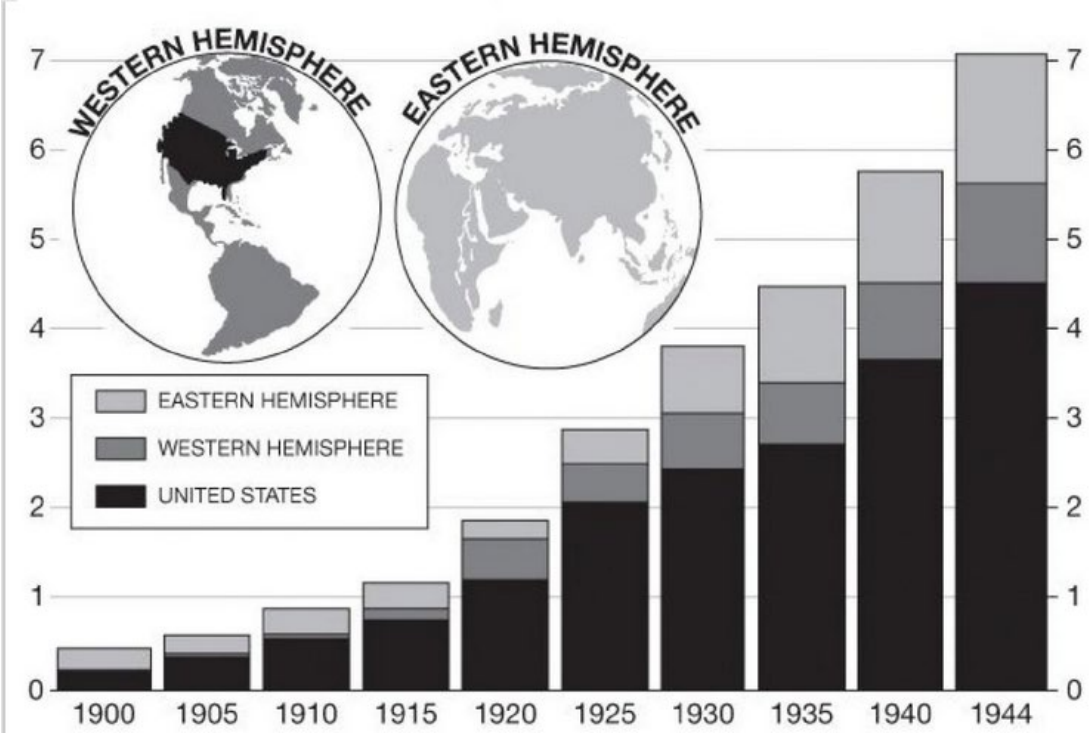
The interwar period brought competition for the oil market in the private sphere as well. Price wars among major oil companies threatened the profits of oil companies. The unregulated competition seemed to bring prices down due to oversupply. The oil companies learned their lesson of the days of overproduction in the United States that lead to price collapse. Leaders of the Anglo-Persian Oil Company (later BP), Royal Dutch Shell, and Standard Oil of New

[33] Chapter 11. and 12.

Jersey (Exxon) held a secret meeting at Achnacarry Castle in Scotland in 1928. The As-Is Agreement led to excessive overproduction. It had seven principles to limit excessive competition. Dividing markets, fixing prices, and limiting the expansion of production capacity affected the development of oil production capacity in the Middle East. The agreement by limiting price competition in product markets resulted in supporting the prices of products made from high-cost crude oil (mainly from America). (Encyclopedia of the Modern Middle East and North Africa [2022]) *"This strategy was implemented as a "basing-point" system under which all sellers calculated delivered prices as the sum of FOB prices at one or more specific locations—basing points—plus a standardized freight charge from that point to the point of delivery. Such a system is very effective because it ensures that all sellers quote the same prices and that producers with low costs cannot use that advantage to expand their market shares by passing on the low costs* (Encyclopedia of the Modern Middle East and North Africa [2022])"

The intended result was reached: the agreement increased the profitability of high-production cost places such as the United States and shut down more than the third of worldwide production capacity to prevent overproduction.

Figure 15. **World Crude Oil Production 1900-1944 (mb/day)**



Sources: Toprani, A. [2019]

However, there were several unintended consequences: First, the agreement depleted reserves in the USA and Canada (politically safe areas). Second, it prevented the full development of Middle Eastern oil resources until the Second World War caused an increased in demand for oil. This increased anticolonial and anti-Western sentiment mainly in Iraq and Iran in the Middle East due to the resulting unjust share of production. Third, the agreement was an important step ensuring the profitability of the oil industry by market control, which was emulated by the OPEC (although with less success) (Encyclopedia of the Modern Middle East and North Africa [2022])

Together with the 1928 Group Agreement (better known as the "Red Line Agreement") major Western Oil companies could control the majority of the oil market for a long period of time. The Red Line Agreement divided the former Ottoman territories of the Middle East among several American, British and French oil companies namely the Anglo-Persian, Royal Dutch/Shell, the Compagnie Française des Pétroles (CFP, later Total), and the Near East Development Corporation. They each received 23.75% share of all crude oil produced by the

Turkish Petroleum Company. The TPC was formed in 1914 to promote oil exploration and production in the Ottoman Empire, and became an important asset after an immense oil field was discovered in Iraq. (Office of the Historian [2022])

10.2. Second Macro Period 1945-1973

The start of the second macro period is the end of the Second World War. The emergence of the new international relations after this major war changed many characteristics of international politics. The global international system created a global balance of power incorporating regional balances. (Morgenthau [1948] p. 149) The emerging bipolar world contained two large tier 1 Great Powers on different continents engaged in a global conflict for power and influence. Even though Waltz summarized this as bipolarity had no periphery (Waltz [1964]), the importance of the regions differed. Europe, East Asia, relatively developed and geopolitically important regions were in the focus of the struggle. Both states had enormous reserves in raw materials on their mainland, but they could not let each other (or other powers) having sole influence in raw material rich regions. The decolonisation period could happen relatively rapidly, because both the USA and USSR were interested in dismantling colonial empires and replacing them with new friendly states.

The importance of the Middle East grew rapidly during and after the Second World War. At the beginning of the war only 5% of the world crude oil production came from the region (compared to 63% from the USA). By 1944, Everette Lee DeGolyer – a successful oil prospector – declared: *"The center of gravity of the world oil production is shifting from the Gulf-Caribbean areas to the Middle East, in the Persian Gulf area.* (DeGolyer [1944])*"*

Both the United Kingdom and the United States viewed the Middle East as an important crude oil producing region for their navies. As early as 1943, while the United States was still a major oil producer William Bullitt, the undersecretary of the navy in a memo to the

Roosevelt administration stated that the vital interest of the United States is to secure petroleum reserves outside of its boundaries. (Sampson [1993] p. 95) This action among several others, is not backing the hypothesis (*H2.*) that major oil producer Great Powers are less focused on securing oil supplies.

The few decades between the end of the Second World War and the first oil crisis was the time of Western influence over oil resources around the globe (except the Eastern Bloc). In the 1940s and 1950s, the colonial empires were still large and where these empires lacked influence, the economic might of the United States and the Seven Sisters[34] made sure that no nation can develop its oil resources without them. This meant that in the bipolar world oil reserves were controlled by the two tier 1 Great Powers and their allies as *H1.* suggests. The 1960s was the decade when the economic might of the Western powers started to wane. Saudi Arabia, Venezuela, Iraq, Iran and Kuwait created the Organization of the Petroleum Exporting Countries (OPEC). These five countries held 80 percent of the known crude oil reserves in the 1960s, but did not control it. It is an important caveat, because none on these powers were Great Powers. The control and access to their oil was ensured through alliance formation, therefore tier 1 Great Powers still had access to the majority of the proved oil reserves of the given macro period as hypothesized by *H1.* Furthermore, in the first years of its existence, the power of the Seven Sisters overshadowed the internally divided and weak OPEC. (Auzanneau [2018] pp. 274-278)

[34] Seven Sisters are major Western oil companies: Anglo-Persian Oil Company (predecessor of BP), Standard Oil of California, Gulf Oil, Texaco (the three predecessors of Chevron), Jersey Standard, Standard Oil of New York (two predecessors of ExxonMobile) and Royal Dutch Shell. (Hoyos [2007])

Table 14. **World Oil Reserves Annually 1948-1973 (billion barrels)**

	USA	Canada	Latin America	Total Western Hemisphere	Middle East	Africa	Western Europe	Total world
1948	21.5	0.1	10.1	31.7	28.6	0.1	0.1	68.2
1949	23.3	0.5	10.9	34.7	32.6	0.1	0.2	73.6
1950	24.6	1.2	11.4	37.3	32.4	0.2	0.3	76.5
1951	25.3	1.2	11.5	38.0	41.6	0.2	0.4	89.9
1952	27.5	1.4	12.7	41.6	51.3	0.2	0.5	103.4
1953	28.0	1.7	11.9	41.5	64.8	0.2	0.5	118.5
1954	28.9	1.8	13.2	44.0	78.2	0.2	0.6	135.0
1955	29.6	2.2	14.4	46.1	97.5	0.1	1.0	157.5
1956	30.0	2.5	15.5	48.0	126.3	0.2	1.3	189.6
1957	30.4	2.8	17.5	50.8	144.5	0.3	1.3	228.0
1958	30.3	2.9	21.0	54.2	169.6	0.8	1.3	260.6
1959	30.5	3.2	21.8	55.5	174.0	4.1	1.4	272.4
1960	31.7	3.5	24.4	59.7	181.4	7.3	1.5	290.0
1961	31.6	3.7	25.1	60.4	183.2	8.1	1.7	297.7
1962	31.8	4.2	24.7	60.6	188.2	9.7	1.7	305.4
1963	31.4	4.5	24.2	60.1	194.0	12.3	1.8	309.5
1964	31.0	4.9	24.3	60.2	207.4	16.4	1.9	326.9
1965	31.0	6.2	25.5	62.7	212.2	19.4	2.0	338.7
1966	31.4	6.7	25.2	63.2	215.4	23.0	2.1	348.1
1967	31.5	7.8	27.1	66.3	235.6	32.4	1.9	381.9
1968	31.4	8.2	26.9	66.5	249.2	42.3	2.0	407.6
1969	30.7	8.4	28.8	67.9	270.8	44.6	1.9	454.7
1970	29.6	8.6	29.2	67.4	333.5	54.7	1.8	530.5
1971	39.0	8.6	26.2	73.7	344.6	74.8	3.7	611.2
1972	38.1	8.3	31.6	78.0	367.4	58.9	14.2	632.6
1973	36.3	8.0	32.6	77.0	355.9	106.4	12.1	661.2

Source: Jenkins [1997] p. 94

The second macro period also backs *H1.* It shows the increased importance of the Middle East throughout the years, but the continued strong position of the United States cannot be understated. In order to prove *H1.* the majority of the proven reserves has to be either in direct or indirect control of the tier 1 Great Powers of the era. The Table 15. below clearly shows that the United States and its ally Saudi Arabia continuously had around quarter of the world oil reserves. This partnership alone secured the USA's position in the matters of energy security. With the reserves of the Soviet Union we can prove that the majority of the proven oil reserves were under the control of the Great Powers in the second macro period as well.

Table 15. **Oil Reserves of Saudi Arabia, USA in Relation to World Oil Reserves 1960-1973 (billion barrels)**

YEARS	SAUDI ARABIA	USA	% OF TOTAL WORLD
1960	50.0	31.7	28.17%
1961	50.0	31.6	27.41%
1962	52.0	31.8	27.44%
1963	52.0	31.4	26.95%
1964	60.0	31.0	27.84%
1965	60.5	31.0	27.02%
1966	60.0	31.4	26.26%
1967	66.0	31.5	25.53%
1968	74.7	31.4	25.96%
1969	77.0	30.7	23.69%
1970	140.0	29.6	31.97%
1971	128.5	39.0	27.41%
1972	145.3	38.1	28.99%
1973	138.0	36.3	26.36%

Source: Based on Jenkins [1997]

Table 15. shows how the balance of proven reserves changed drastically in the decade before the oil crisis of 1973. The importance of Saudi Arabia is clear from the numbers in terms of an oil producer. The USA and Saudi Arabia together held the 28.17% of total world proven reserves with a 3 to 5 ratio in 1960. The distance between the two country increased to approximately 3 to 11 ratio in a decade.[35]

10.2.1 France's Struggle for Oil

Former tier 1 Great Powers such as France was not as successful as the USA or the Soviet Union to keep its alliance system together for providing oil. The domestic production of France was not as favourable either.

Algeria's independence, the Biafran War in Nigeria and Libya's control by Gaddafi dealt a serious blow to Western oil influence in North Africa. In this region, mainly France and its

[35] See more at Chapter 11.5

oil empire suffered serious losses. Mainland France is almost devoid of oil resource. It depended 90 percent on foreign oil in 1960. The major oil discoveries reduced that number to 60 percent by 1962 thanks to Algerian oil. (Malti [2010] p. 19) The political fight continued for exclusive rights for the French after Algerian independence.

Further complicated the question that by 1960 Mali, Niger, Chad and Mauritania achieved independence and could keep their Saharan territory, while France did not want to let Algeria and its oil rich Saharan territory go. During the Évian negotiations, France could maintain four bases to test nuclear weapons and one to test chemical weapons in the Sahara. (Aggoun, Rivoire [2005] p. 44; Jauvert [1997]) These bases helped France hold onto its investments in Algerian oil and after the independence, France could preserve ownership and control of crude oil production in Algeria for a few years. The above mentioned numbers show the power of balancing strategies France implemented to keep its oil sources. However, with the decolonisation period France could not keep and retain its status as a tier 1 Great Power as *H3.* suggests.

First, Algeria joined OPEC in 1969, invited Soviet engineers to counter the false data of French ones and in 1971. Algerian President Houari Boumediene announced the nationalization of the oil and gas sector. The US oil companies were assured they can purchase Algerian gas and oil and could provide assistance running oil wells as well. (Taguemout [1994]) Therefore, the United States and the Soviet Union did not see the actions of the Algerian government as hostile, but rather a fortunate turn of events that would weaken the once formidable French colonial empire. Good relations were secured with the Algeria by the Americans and the Soviets therefore no necessary balancing acts were taken to hinder Algerian independence by tier 1 Great Powers. The OPEC in 1969 was not viewed as major threat to these powers since the 1967 embargo proved Arab nations (and OPEC) to be inefficient. However, OPEC would play a greater role only a few years later at the time of the first oil crisis of 1973.

De Gaulle and France sought to preserve Great Power status and access to black gold at heavy costs. The French President's goal was to *(H3.) maintain access to oil supplies in order to*

keep France's power projection capabilities at a similar level as other Great Powers, and not to lose its status of being one.

The Biafran war of 1967-1970 was mainly about access to the Nigerian delta's rich oil sources. Oil extracted by the French started in 1966. (Auzanneau [2018] p. 287) The ethnic conflict that broke out the same year provided an opportunity for the French to weaken the newly formed populous state of Nigeria (Foccart [1995] p. 342) in order to prevent any nationalization attempt of the oil industry. France delivered weapons to the rebels while the Nigerian army received air support by the Russians via Mig fighters jets flown by Egyptians. Covert regime change as a means of indirect control was used by the French.[36] France used its hard power by providing weapons, soft power by promoting the cause of the rebels at the international stage and sharp power by manipulating and prolonging the conflict to gain access to oil. (Levey [2014]) The war killed millions of people due to the military conflict, food blockade and starvation. In the end, the rebels lost, and Safrap[37] had to transfer 35 percent of its capital to the National Nigerian Petroleum Company in 1971, then in 1974 another 20 percent. It was renamed to Elf Nigeria. It's production lagged behind Shell and BP, and did no longer had the majority control in French hands. (Auzenneau [2018] p. 289)

The second macro period differed from the first since the bipolar system changed the power dynamic and number of the most important states in the international system. However, it was still evident that oil was under the control of the USA or the USSR and their allies. In addition to the actions of the USA and USSR to secure their own supply, their role of dismantling former colonial empires and disrupting the strong ties between former colonizers and colonies are evident. These actions were, as the case of France shows how tier 1 Great Powers remained at the top of the international system, while formerly formidable international actors such as France or the UK faded in importance in the second half of the 20th century. The means to control colonial empires weakened, therefore the relative power of the European colonial empires weakened as well. The reduction of power projection

[36] Figure 8. shows the range of anticipatory strategies.
[37] Safrap was the French petroleum company who first got permit for prospecting for oil in 1964.

capabilities compared to the USA and USSR meant the loss of tier 1 Great Power status as well.

10.3. Third Macro Period 1973-1998

The oil market changed from a demand ruled to a supply governed market between 1970 to 1973. (Auzenneau [2018] p. 338) The conventional easily extractable US crude oil reserves showed a decline in the previous decades, but the world economy demanded more and more oil to function. The power of OPEC and oil producing nations in the Middle East increased due to their important role of providing cheaply extractable good quality crude oil.

The 1970s showed the world that oil shortages could disrupt economies on a major scale. The oil crises pushed up prices that made previously unprofitable oil sources viable. Western companies started to look for unconventional oil sources on territories under their control. The 1973 oil crisis made Alaska and the North Sea profitable places to start oil production. Interestingly, extremely low oil prices hindered developments of alternative resources and alternative oil extracting regions. Without these alternative regions, the known easily accessible oil reserves of 1970 would have run out by 2000. (Mesarovic, Pestel [1974])

The price boom of oil in the early 1970s made the United Kingdom withdrew all of its troops from east of Suez. BP could extract oil from the North Sea, therefore the Royal Navy's functionality no longer depended on Middle Eastern oil and the UK could remain relatively secure in terms of access to oil. The indirect method of controlling oil sources proved to be too costly for the UK, therefore it pursued self-sufficiency methods by producing oil from the nearby sea. The Anglo-Saxon powers of the USA and UK could hold onto their power due to their luck of "newly found" resource endowment. However, OPEC's influence over other less fortunate nations remained.

The oil crises of the 1970s, and the Iran-Iraq war showed how dangerous is to depend on oil from the Middle East. Other places such as the North Sea, Alaska, Gulf of Mexico etc. could provide an additional oil source, but the world economy looked for alternatives. The high price of oil enables expansive innovation and alternative methods to thrive, so OPEC and the Middle Eastern producers cannot raise the barrel price without consequences. One quarter of the rich OECD countries generated their total electrical power from oil in 1973. This number decreased to one-tenth within less than a decade. (Helbling, Kang, Kumhof, Muir, Pescatori, Roache [2011]) The energy demand did not decrease, but electricity generation was no longer one of the main driving force for acquiring oil sources. Fuel-efficient vehicles from Europe and Japan decreased temporarily the growing demand for oil. However, by the second half of the 1980s world oil consumption was again on the rise. Oil sources from outside the Middle East decreased the price of oil. The stabilized oil market made shale oil development unprofitable. (Auzenneau [2018] p. 390)

During the second half of the 20th century the USA and the USSR developed and maintained vast alliance systems. The main difference between the USA and the USSR was the size of their economies. The capabilities of the two Great Powers to maintain their alliance structure were different. The USSR had limited foreign convertible currencies, while the USD dominated the world's financial markets. The one true source of the USSR's foreign convertible currency was its hydrocarbon exports. The high price of hydrocarbons favoured the USSR to develop ties around the globe and prop up far left leaning insurgencies and governments around the globe. However, this empire-building cost the Soviet Union 15-17 billion USD annually. During the 1980s while crude oil prices were high, the oil proceeds of the USSR were around 30 billion USD annually. (Robinson, Barbéris [2010]) The fragility of the USSR's financial situation to support its allies depended on high prices of hydrocarbons. Each $1 decrease per oil barrel caused the Soviet Union to lose 1 billion USD in revenue. (Robinson, Barbéris [2010]) In the case of the USSR its foreign policy depended on oil, because it could finance its power projection abroad. This finding is not supporting the claim of *H2.* because even though the USSR had huge amounts of oil, its foreign policy was influenced by the fluctuations of oil revenues.

As soon as the USA realized how dependent the USSR was on hydrocarbon revenues, the calculus of the USA had to be recalibrated. As long as crude oil price remains high, domestic producers and the oil-producing allies of the United States could remain profitable. High oil prices favoured diversification of suppliers and innovation. Furthermore, ensured that potentially emerging economic powers cannot seriously challenge the position of the United States as long as it is a major oil producer and has a hold on allies such as Saudi Arabia to influence the price of oil.

CIA director William Casey pressured King Fahd of Saudi Arabia to lower the oil price in the second half of 1983. (Schweizer [1996] p. 205) Cheap oil prices enhanced the domestic economy of the USA, increased the popularity of the incumbent government and put pressure on the Soviet's at the same time. (Schweizer [2003]) The grip of the USA on Saudi Arabia was strong. On the one hand, the alliance and the support of the Americans were substantial, the kingdom's major weapons supplier were the Americans. The monarchy feared the spread of communism, because it threatened their hold on power and the presence of the Americans ensured that the neighbouring strong states would not dare to threaten the borders Saudi Arabia. Furthermore, in the 1980s the Iran-Iraq war, the USSR's invasion of Afghanistan required the strong support of the USA in order to ensure the security of the kingdom. (Auzenneau [2018] pp. 394-395)

The third macro period clearly shows the power of OPEC and the Middle East. Their increased proven reserves and the two oil crises of the 1970s are a true sign of a different period in international politics. In the case study of Japan, I indicate several foreign policy actions of the country to appease OPEC. Furthermore, Japan diverted its foreign policy to accommodate OPEC to ensure oil supplies in spite of strong alliance commitment to the United States.

Table 16. **World Oil Reserves Annually 1973-1996 (billion barrels)**

	USA	Canada	Latin America	Total Western Hemisphere	Middle East	Africa	Western Europe	Total world
1973	36.3	8.0	32.6	77.0	355.9	106.4	12.1	661.2
1974	35.3	7.7	31.6	74.6	350.2	67.3	16.0	626.7
1975	34.2	7.2	40.6	82.0	403.9	68.3	25.8	712.4
1976	32.7	6.7	35.4	74.7	368.4	65.1	25.5	657.9
1977	30.9	6.2	29.6	66.8	367.7	60.6	24.5	640.1
1978	29.5	6.0	40.3	75.8	366.2	59.2	26.9	645.8
1979	27.8	6.9	41.2	75.9	370.0	57.9	24.0	641.8
1980	27.1	6.8	56.5	90.3	362.0	57.1	23.5	642.2
1981	29.8	6.4	69.5	105.7	362.1	55.1	23.1	651.9
1982	29.4	7.3	85.0	121.7	362.8	56.2	24.6	670.4
1983	27.9	7.0	78.5	113.4	369.3	57.8	22.9	668.3
1984	27.7	6.7	81.7	116.1	370.1	56.9	23.0	669.7
1985	34.5	8.3	83.3	126.1	398.4	55.6	24.7	707.2
1986	35.6	7.4	84.3	127.3	397.5	56.2	26.4	707.6
1987	32.5	7.9	88.9	129.3	402.0	55.2	18.2	703.1
1988	33.4	7.7	114.3	155.4	564.8	55.2	22.4	896.5
1989	34.6	9.0	122.1	165.7	571.6	56.2	17.7	916.6
1990	34.1	8.3	125.2	167.6	660.3	58.8	18.4	1,011.8
1991	33.9	8.1	121.0	163.0	662.6	59.9	14.4	1,009.2
1992	33.8	7.9	109.9	151.6	661.6	60.5	14.5	1,009.9
1993	32.2	7.6	114.0	153.8	661.8	61.8	15.8	1,007.1
1994	31.2	5.1	124.9	153.8	662.9	62.0	16.6	999.1
1995	30.1	5.0	129.1	157.1	660.3	62.2	16.6	999.8
1996	29.6	4.9	128.6	156.0	659.6	73.2	15.6	1,007.5

Source: Jenkins [1997] p. 94

The United States at the end of the 19th and beginning of the 20th century was in a very lucky place. The mainland oil production soared and its oil companies had few competitors. During the Second World War access to oil and resource-endowment became a vital issue for national security. The importance of oil field in Romania, Caucasus, Dutch East Indies etc. showed how highly motorized militaries cannot function without access. In the Japanese case study, I show how the lack of domestic oil sources forced Japanese foreign policy decision making.[38]

[38] Chapter 12.

Table 17. **Oil Reserves of Saudi Arabia, USA in Relation to World Oil Reserves 1973-1996 (billion barrels)**

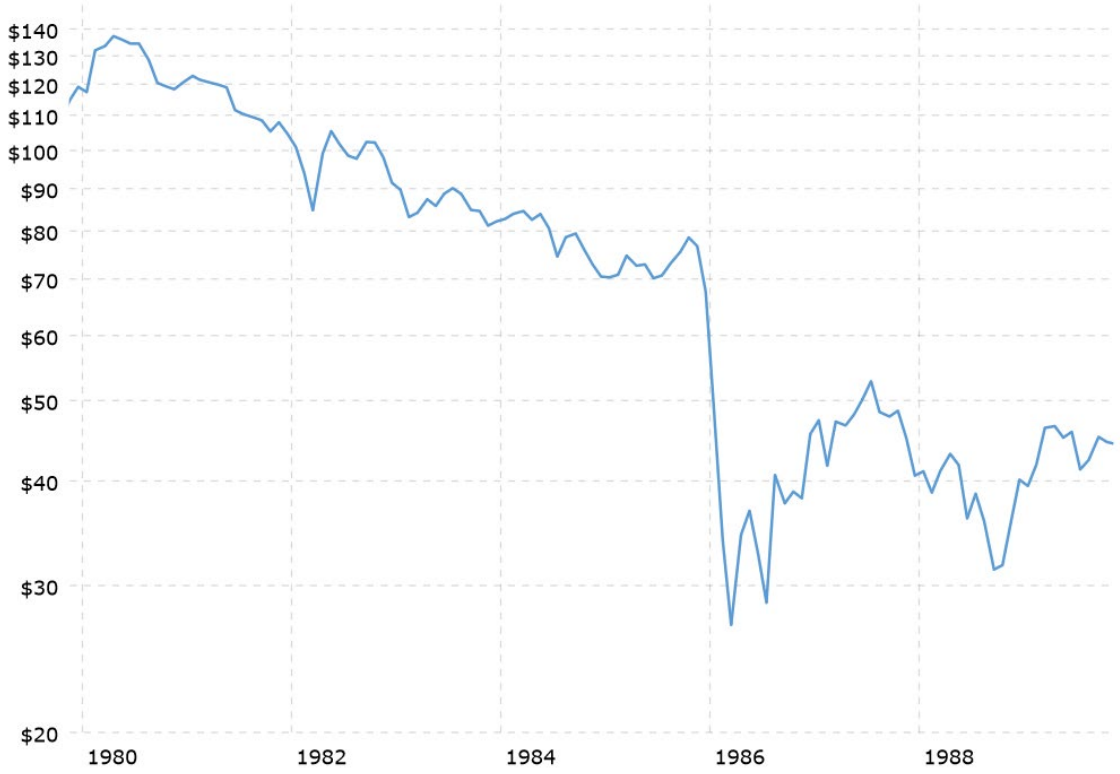
YEARS	SAUDI ARABIA	USA	% OF TOTAL WORLD
1973	138.0	36.3	26.36%
1974	132.0	35.3	26.70%
1975	164.5	34.2	27.89%
1976	148.6	32.7	27.56%
1977	151.4	30.9	28.48%
1978	150.0	29.5	27.79%
1979	165.7	27.8	30.15%
1980	163.6	27.1	29.69%
1981	165.0	29.8	29.88%
1982	165.0	29.4	28,00%
1983	162.4	27.9	28.48%
1984	166.0	27.7	28.92%
1985	169.0	34.5	28.78%
1986	168.8	35.6	28.89%
1987	166.6	32.5	28.32%
1988	166.6	33.4	22.31%
1989	170.0	34.6	22.32%
1990	255.0	34.1	28.57%
1991	257.5	33.9	28.87%
1992	257.8	33.8	28.87%
1993	257.8	32.2	28.80%
1994	258.7	31.2	29.02%
1995	258.7	30.1	28.89%
1996	258.7	29.6	28.62%

Source: Based on Jenkins [1997]

The United States could not threaten the Soviet Union's access to its hydrocarbon reserves, since they were on its territory. However, the United States made sure that around the globe even its allies could not build up their own oil empire that would match the USA's. The decolonization made several former colonial states realize their diminishing power at the beginning of the 1970s. OPEC and the two oil crises drove up oil prices. It had advantages and disadvantages as well, as I discussed above. A decade after the first oil crisis, the Americans realized how cheap oil can diminish the power of their main rival the Soviet Union. After, the USA pressured its close ally Saudi Arabia, two notable things happened. Saudi Arabia greatly increased its extractions in 1985 and adopted a new pricing method. Instead of a traditional pricing system that originated from the "posted price" of the Seven Sister's cartel, Aramco used "netback pricing". This method had a closer connection to production

costs therefore in Saudi Arabia where production cost is relatively lower; the price went down further, than using the traditional posted price method. Other OPEC members started using netback pricing to remain competitive. (Mabro [1987]; Auzenneau [2018] p. 395)

Figure 16. **Inflation Adjusted Crude Oil Prices 1980-1990**



Source: Macrotrends.net [2022]

Saudi production increased from 1985 to 1986 by 69 percent (from 3.6 Mb/d to 5.2 Mb/d) which decimated oil prices as Figure 16. above shows. The foreign currency source of the Soviet Union fell by two thirds in consequence to that. (Auzenneau [2018] p. 395) The oil price remained low until the 1990s therefore contributing to the collapse of the Soviet Union by putting pressure on its economy as was designed by the USA.

10.4. Fourth Macro Period 1998-Present

The last of the macro periods started with a surplus crude oil on the market following the Asian financial crisis of 1998. Even though Iraq was burdened by embargo, Venezuela and Saudi Arabia had enough production to fight for Iraq's former market share. Low oil price, which reached $11.22 in November 1998, was even lower than at the lowest crude oil price during the beginning of the coronavirus pandemic.[39] (Macrotrends.net [2024]a.) The low oil price ensured low price of transportation cost, accelerating globalization at the end of the 20th century. Oil majors faced with similar market forces as in the end of the 1920s. Either cooperate with each other and decrease oil exploration budgets outside of the Middle East (where extraction cost is low due to easy geological access to oil) or face ever-decreasing profits. (The Economist [1999]) Several megamergers occurred in the start of the fourth macro period. Exxon absorbed Mobil, BP merged with Amoco, Total absorbed the Belgian Petrofina, then French Elf Aquitaine and Chevron incorporated Texaco.(Auzanneau [2018])

The promising start of the 21st century quickly gave way to increasing oil prices thanks to the aging wells in the USA and Indonesia. Due to the low oil price at the turn of the century new discoveries and harder to extract oil sources were neglected. These issues produced a drastic increase in the price of oil.

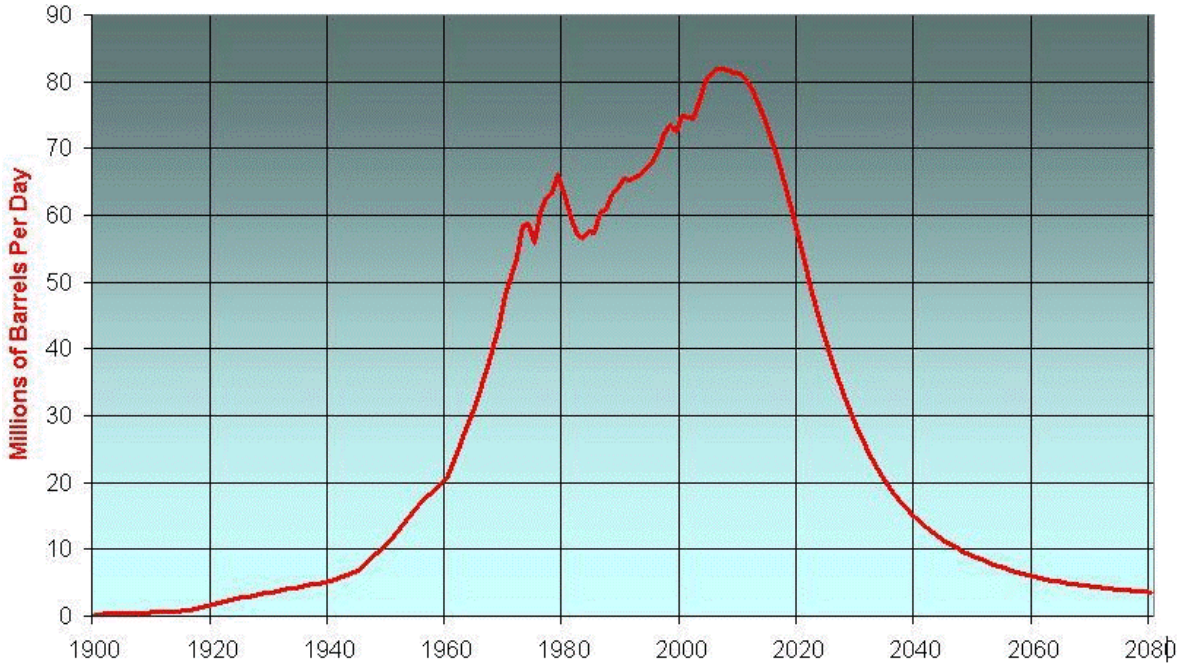
[39] Lowest crude oil price at the beginning of the Coronavirus pandemic was around $22.95, which is higher than the oil price in November 1998 (if we adjust for inflation $21.65).

Figure 17. **Inflation Adjusted Crude Oil Prices 1995-2024**

Source: Macrotrends.net [2024]a.

The increasing oil price of the early 2000s were mainly due to economic growth and fear of peak oil. "*Peak oil theory, a contention that conventional sources of crude oil, as of the early 21st century, either have already reached or are about to reach their maximum production capacity worldwide and will diminish significantly in volume by the middle of the century. "Conventional" oil sources are easily accessible deposits produced by traditional onshore and offshore wells, from which oil is removed via natural pressure, mechanical walking beam pumps, or well-known secondary measures such as injecting water or gas into the well in order to force oil to the surface. The peak oil theory does not apply to so-called unconventional oil sources, which include oil sands, oil shales, oil extracted after fracking "tight rock" formations, and oil found in deepwater wells far offshore—in short, any deposit of oil that requires substantial investment and labour to exploit.* (O'Leary [2023])"

Figure 18. **World Oil Production 1900-2080**



Source: Winfrey [2010]

Up until the 2008 crisis, the demand for oil increased and the fear of peak oil contributed to the high oil price. On the one hand, if the oil price drops too far, new and more extraction projects will be delayed or stopped causing a shortage of oil due to the natural decline of existing old wells. This market pressure eventually force the price to rebound. On the other hand, if oil price increases too much the economy will inevitably stall, until new extraction projects bring enough surplus to the market to push the price down. (Auzanneau [2018] p. 517)

There are at least two notable external factors that affected the price of oil other than regular economic market forces in the second part of the fourth macro period. The Covid-19 pandemic and the Russia-Ukraine war. The coronavirus pandemic caused supply chain disruptions, sluggish economic growth, energy price fluctuations and later inflation. (Xing, Cong, Wang, Wang [2023])

Table 18. **World Proved Crude Oil Reserves 2000-2022 (billion barrels)**

	2000	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*
USA	22.0	20.7	20.7	33.4	37.9	39.9	39.9	35.4	61.2	71.0	39.9	35.4	61.2
Total Western Hemisphere	162.1	531.8	531.2	543.2	546.9	551.8	551.8	538.5	564.9	574.7	550.7	543.3	564.6
Total OECD Europe	19.3	11.2	11.1	11.4	10.8	10.0	10.0	12.1	13.1	13.1	10.5	10.7	13.1
Russia	48.6	60.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Total CIS/FSU	57.0	98.9	118.9	118.9	118.9	118.9	118.9	118.9	118.9	118.9	118.9	118.8	118.8
Total Middle East	694.4	797.0	799.0	803.4	808.0	802.7	802.7	812.9	801.5	801.7	801.2	806.1	803.1
Total Africa	91.2	122.2	122.6	124.8	124.6	125.3	125.3	127.4	121.2	123.1	124.5	121.6	118.2
China	17.9	20.4	25.6	24.4	24.7	25.1	25.1	26.1	25.9	26.2	25.1	25.6	25.9
Total Asia	34.7	42.2	47.4	46.1	46.4	44.3	43.4	43.4	43.8	43.7	45.0	43.3	43.4
Total Pacific	3.4	4.2	4.1	4.1	3.5	4.2	4.2	6.3	5.6	4.2	2.2	3.2	4.2
TOTAL WORLD	1,064.0	1,608.3	1,633.8	1,652.7	1,659.9	1,658.2	1.657.3	1,660.4	1,669.7	1,680.4	1,654.0	1,647.8	1,666.1

Source: Based on Oil and Energy Trends [2023]

The fourth macro period shows the state of proven reserves today. The United States has a vast alliance system with NATO countries and Major Non-NATO Ally (MNNA) countries. In addition to these strong formal alliance systems, the US maintains close bilateral ties with several countries such as Saudi Arabia who the US has a strategic partnership for more than eight decades. (Office of the Spokesperson [2023])

Table 19. **World Crude Oil Reserves Controlled by Great Powers**[40]

Macro Periods	Great Powers	Control over Oil Reserves (billion barrels)[41]	% of Total World Oil Reserves	% of Total World Oil Reserves Controlled by Tier 1 Great Powers
First Macro Period	USA	20.8	48,32%	*87,49%*
	USSR	6.8	15,69%	
	UK	8.9	20,61%	
	Germany			
	France			
	Italy			
	Japan	1.2	2,87%	
Second Macro Period	USA	445	67,3%	*79,4%*
	USSR	80	12,1%	
Third Macro Period	USA	600,6	59,61%	*65,27%*
	USSR/Russia	57	5,66%	
Fourth Macro Period	USA	1229,3	73,79%	*73,79%*

Source: Edition of the author based on Stebinger [1920] p. 123; Jenkins [1997] p. 94; Oil and Energy Trends [2023]

[40] Table 19. uses approximate numbers due to uncertainty calculating reserves (Chapter 9.1. explains this research problem in great detail).
[41] Allies of Great Powers were added to the overall numbers due to their direct or indirect control over oil (See more at Chapter 7.)

H1. is correct in all the macro periods, Great Powers did have a control over the majority of oil sources either in a direct or indirect manner as Table 19. shows above. The macro period section of the paper find strong evidence for *H1.* contradictory evidence for *H2.* and supporting evidence for *H3.* Further enhancing the dissertations ability to prove the hypotheses, case studies are used in the last part.

11. Case Study - The United States of America

The birth of the modern petroleum industry started in the United States of America in the 19th century. The abundantly available early resources of the country jumpstarted the position of this relatively new country and made it a major player in the oil industry early on.

The first oil refinery was operational in 1861 and exporting oil to London began shortly after. As oil started to supplant coal, the economic power of the United States increased. This country was responsible for 85 percent of the world's cruel oil production and refining in 1880. (Council on Foreign Relations [2018])

The position of the US could not be maintained despite the fact that major oil discoveries fuelled the oil industry like the Spindletop gusher in Texas. Spindletop produced over 50,000 barrels per day and it was alone responsible for 20 percent of daily US production at the time. (Downey [2009] p. 5)

The profitability of the oil industry and the newer and newer possible applications of petroleum made discoveries over the globe possible. The strategic need for the material developed shortly after. The start of the First World War made oil a vital energy fuel for modern militaries. The newer ships, land vehicles and airplanes all needed a certain type of petroleum product to operate. The motorization of the militaries made them immobile in air, land and sea if they could not get enough fuel.

The United States entered the Great War in 1917 that meant an abundant supply of oil for the United Kingdom and France. The economic power of the United States was quicker to show than its military one in the First World War. The Central Powers could not match the might of the Allied Powers and were defeated shortly after the entrance of the United States.

The war and the technological innovations such as the Ford T-model required tremendous amounts of oil. The U.S. Geological Survey of 1919 predicted that U.S. domestic oil supplies would run out within a decade. The government was eager to act and passed the 1920 Mineral Leasing Act. This meant that federal lands could be leased to private actors more widely and the royalties and other incomes would benefit both the State and the Federal Government. (United States Geographical Survey [2018])

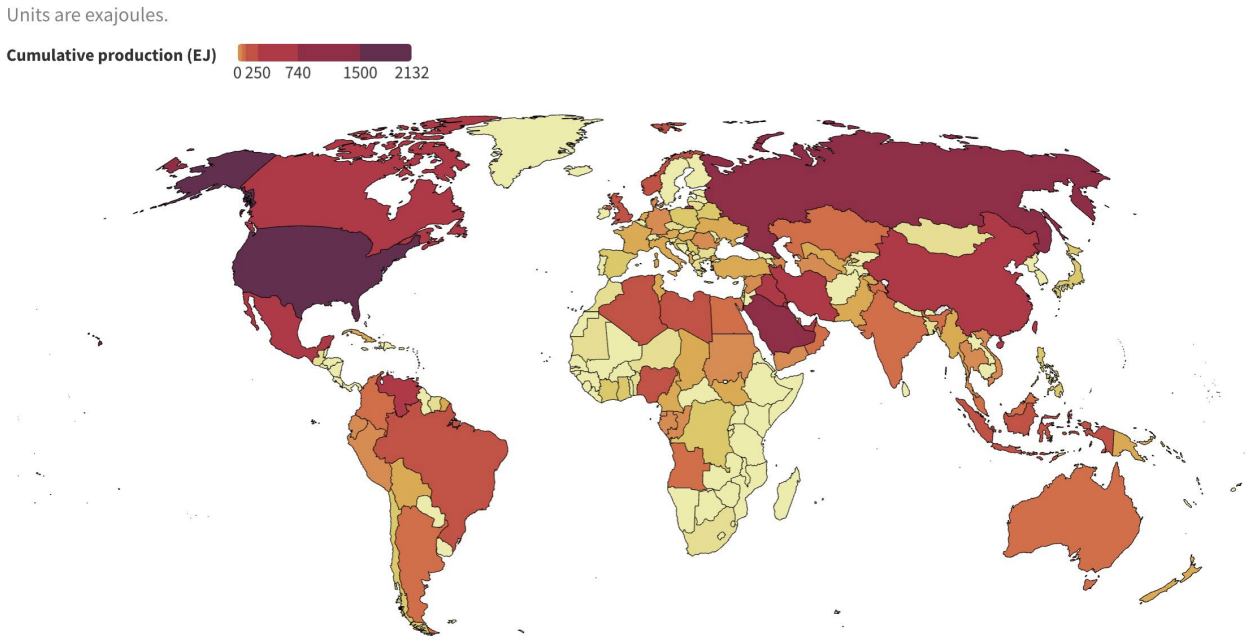
This step made every actor interested in finding oil on its land. The fear of oil shortages and the promising profit of the oil industry made a demand for topographical data and maps. Nearly 60 percent of the total territory of the United States were totally unmapped in the 1920s. The push for oil in the territory of the United States resulted in discoveries in the Gulf Coast, California and the midcontinent region in a few years. These discoveries made an oil surplus instead of a shortage that was forecasted. (United States Geographical Survey [2018])

The oil discovery rate of the second half of the 1920s and 1930s made oil a cheap commodity. Technological breakthroughs and wide range production induced a stabilizing mechanism from the states to prevent price collapse. The United Kingdom tried to limit sales by oil producers with the Achnacarry Agreement of 1928. At the same time, the seven biggest oil companies (five of them are from the USA) agreed not to independently extract oil in the Middle East from Turkey to Saudi Arabia. This Red Line Agreement of 1928 excluded Iran, Kuwait and Egypt, but was a major step in order to stabilize the market. The overproduction in the US decreased the oil prices to just a few cents in the beginning of the 1930s, but the government used production quota system for its domestic producers and a duty tax for imported oil in order to counter the potential collapse of the oil industry. (Kaufman [1978] pp. 123-136)

The artificial slowdown that appeared in the oil industry strengthened the positions of the major oil producers and refiners in the 1930s. Since the United States was an important player, and several major oil companies originated from the USA this meant that the power of controlling the flow of oil was in the hands of a few players including this country. As Table 19. shows *H1.* is correct regarding proven reserves under the control of Great Powers. The duty tax on oil produced revenues for the state and the deliberately maintained higher oil

prices (without the intervention of the major players the price would have been lower or in the worst-case scenario collapsed), made mainly Western countries richer and richer.

Figure 19. **Cumulative Oil Production by Country 1900-2022**



Source: Cleveland, Mirkova [2024]

11.1. The United States and World War II

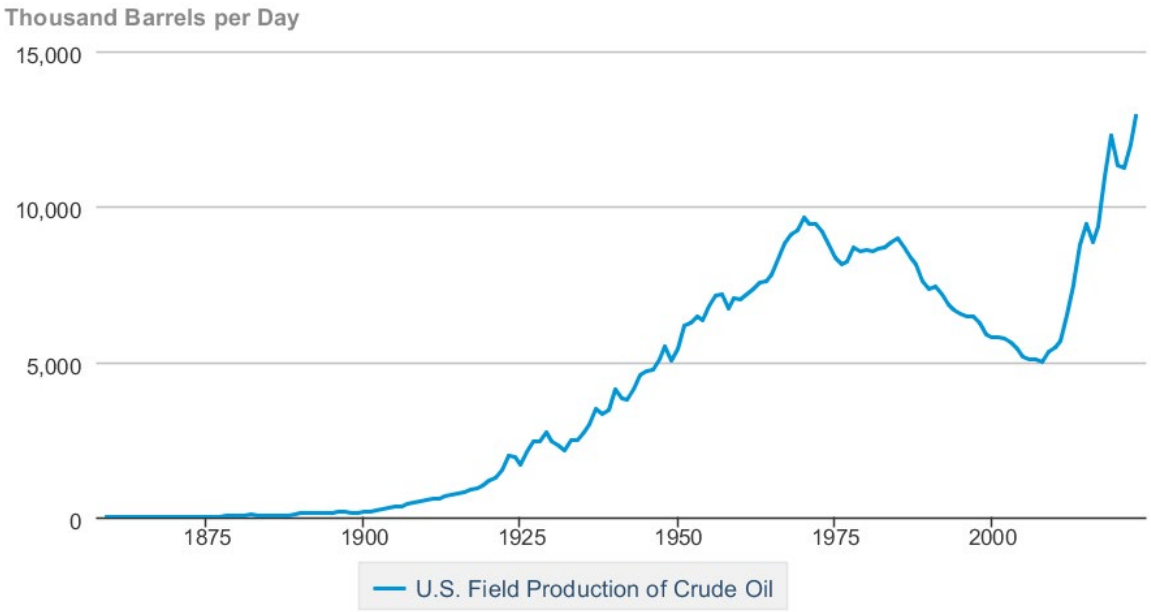
The case of the United States and oil in the Second World War is different from the case of Japan. As the Japanese case shows in Chapter 12. oil was an essential necessity even during the first half of the 20th century. It was especially true for the time of military conflicts.

At the beginning of the war, the United States tried to avoid the armed confrontation as in the case of the First World War as well. However, the Japanese carried out hostile moves during the 1930s and early 1940s that raised the tension between the two countries. The

United States was a major player in terms of oil production; it controlled 60 percent of it in the beginning of the war. The second and third most important producer at the time was Russia and Venezuela. Japan heavily relied on the US oil shipments. Japan knew that certain military actions would cause retaliatory actions from the United States even before the US and Japan entered into direct military conflict. The easiest way of pressuring Japan and slowing down its military actions was to decrease the oil exports to Japan from the United States. In order to counter these measures Japan began to stockpile oil prior to the sanctions, but was unable to secure a large enough supply as was mentioned in the case study of the country. (Yergin [1991])

The United States gave a large amount of attention to the question of oil during the war. Even though it was a major producer countering the claim of *H2.* America's foreign policy focused on oil sources. In addition to that, it has recently discovered and developed oil fields in Latin America. They provided a secure background for the strategic position of the United States, but it was nevertheless cautious. The Second World War left the American continent intact, but the United States had to take precautionary measures in its homeland in order to supply the Allied powers during the war. The convoys that left the Western Hemisphere suffered major casualties thanks to successful German submarine attacks. The threat of Germany suffocating the United Kingdom and defeating it was real in the beginning of the war. The United States tried to ramp up its domestic oil production, and in 1942 after the United States entered the war other measures followed. (Council on Foreign Relations [2018])

Figure 20. **U.S. Field Production of Crude Oil**



Source: U.S. Energy Information Administration [2024]a.

The abundance of oil did not become a problem for the United States to carry out its military operations, but a Mandatory Gas Rationing system was put in place in 1942. The System limited the amount of gasoline each citizen could get. The five different categories were:

- "Class A" drivers who were only allowed to have 3 gallons of gasoline per week
- "Class B" category were destined to factory workers and traveling salesmen who got 8 gallons of gasoline per week in order not to slow down the economic output of the country
- "Class C" drivers were people essential to the war effort, doctors, policemen and postmen
- "Class T" was for the truck drivers
- "Class X" was for politicians and other important influential people

The "Class C", "Class T" and "Class X" drivers could have limitless gasoline. At first sight, this measure could have been essential to preserve precious fuel for the war effort and to counter shortages in the medium to long term. However, it was not the case. The shortage

was not connected to gasoline, but rather rubber. In order to preserve the tires of the cars this rationing system was put in place by the government. The people especially in the Western parts of the country were not happy, because they saw the abundant oil fields and supplies of the country, plus in that region there are more distances between places than in the Eastern part of the country where the population density is higher. (Long [2009])

The oil alone was not a problem for the United States. However, the country used its petroleum products in order to influence both foreign and domestic policy.

Despite the fact that the USA entered the war and Russia was a major oil producer as well, by 1943, the United States looked for countries for potential oil imports countering the proposition of *H2*. Saudi Arabia was discovered to be the home of potentially vast quantities of oil in 1938. The diminishing oil productivity of the United States during the war meant that the United States sought closer ties with non-belligerent nations such as Saudi Arabia. Despite the vast US production, the foreign policy of President Franklin Delano Roosevelt had to cater to oil rich nations. Since the Second World War, Saudi Arabia has been an important partner of the United States solely due to the fact that the country produces huge quantities of oil. Before the oil wealth could have made the Saudis rich, the United States provided financial support in order to lure the country closer to the Western world especially to the United States. Therefore, the foreign policy of the country was diverted in order to secure the oil supplies of the country significantly. (Council on Foreign Relations [2018])

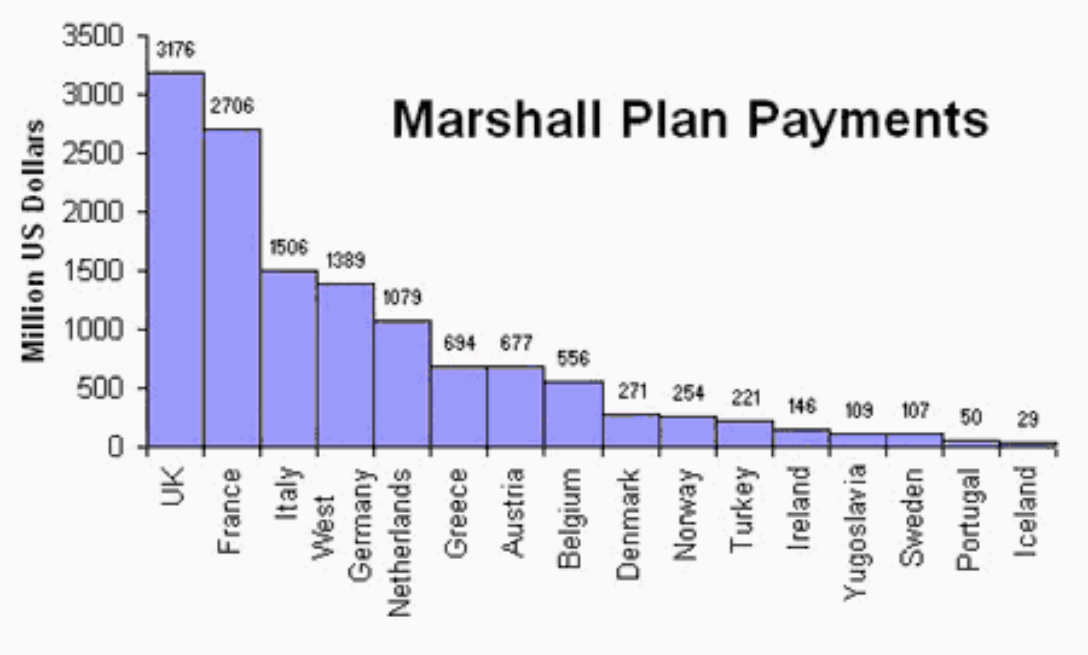
11.2. The Marshall Plan

The United States did not left the stage of world politics as it did after the First World War. After Europe was in ruins, the United States started to use its foreign policy more efficiently to influence several parts of the globe. One of the key instruments of influencing major parts of Europe was the so-called Marshall Plan. Formally, known as the European Recovery

Program, which lasted from April 1948 to December 1951 was a U.S. designed and supported program to help European states recover from the destruction of war and to create Western-style democratic institutions in order to deter the societies turning towards radical political movements as some of them did after the First World War. One of the most apparent threat towards the United States was the influence of the communist ideology that could thrive in situations of poverty and unemployment. In addition to the desperate situations of war torn countries, the Soviet Union was a major military power in Europe that had forces deep inside Europe in order to potentially help the rise of local communist parties and eradicate Western-type institutions.

The Marshall Plan was the idea of Secretary of State George C. Marshall. It distributed $13 billion worth economic aid over a four-year period in the form of direct grants and loans. It established the predecessor of the Organisation for Economic Co-operation and Development (OECD) the Organisation for European Economic Co-operation (OEEC). Austria, Belgium, Denmark, France, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Sweden, Switzerland, The United Kingdom, Western Germany received the aid. In addition to them Greece and Turkey got the aid first in 1947 prior to the official start of the plan in 1948. (Provan, Kelkheim [2018])

Figure 21. **Marshall Plan Payments by Countries**



Source: Gracemaringomakenzierabbitcoldwar.weebly.com [2018]

The success of the Marshall Plan is not debatable. The Western European countries increased their GNP by 15 to 25 percent during the four-year period. In addition to that, President Truman initiated a Four Point Program for less developed countries outside of Europe in 1949 using the Marshall Plan as an example. (Encyclopædia Britannica [2017])

The Soviet Union and its satellite states turned down the aid. The refusal of the aid and the early recipients of Greece and Turkey made it clear that the program is not just an altruistic economic aid package. The Marshall Plan ensured that good economic relations develop in the post war Europe with the United States. The Eastern bloc countries could not have used the tools of the Marshall Plan without seriously connecting their economies to the United States. The influence of the Soviet Union and the spreading of communist ideologies made it impossible to accept the program by the Eastern European countries. (Provan, Kelkheim [2018])

The Marshall Plan is mainly seen as an economic boost for the European and American economies, but we should not forget that the U.S. opened the door for oil exports to the

European partners as well. The industry of the war-torn countries was in ruins that is a major disadvantage to them. However, if the Europeans would have been able to build themselves up, and would have been left alone by the United States after the war, the clean slate of their economies would have meant different pathways to choose from. The European countries analysing the situation would have easily concluded that they do not have secure oil supplies therefore a friendlier approach could have been developed towards the Soviet Union, a major oil producer. New technologies and closer relations with oil producing nation would have been carried out by the European states if they could not count on the help of the United States.

This would have meant that the alliance between Europe and the USA would be much weaker than it was during the Cold War and today. This would have meant a major blow to the might of the United States since it benefits a lot from its powerful Allies that it could count on during war or peacetime.

The United States used its oil sources to strengthen this alliance and provided more than $11 billion in oil aid, about 10 percent of total aid provided by the European Recovery Program. (Council on Foreign Relations [2018])

The United States used oil throughout the war and after that throughout the Marshall Plan to bring Western European states closer to the country. The Iron Curtain and the ideological differences made harder for Western Europeans to acquire oil from the Soviet Union. Their own sources were insufficient, but the United States was a reliable partner. In order to counter this dependence the European countries could turn to the Middle East, but as I mentioned before, the United States was present in that region as well. The United States maintained good relations with the Western European countries and major oil producers such as Saudi Arabia in order to have more power to influence these actors. The US government did not care which company developed Saudi oil reserves as long as they were in American hands. The European allies of the United States were supplied by Middle Eastern oil, but this oil was mainly flowed thanks to the influence of the Americans. American crude oil fields could secure supplies for the domestic economy and army, while the foreign influence of the USA was enhanced by Middle Eastern oil. Europe as early as 1950 became depended on the oil

supply of the Persian Gulf for a long time, which was controlled by American and British companies. Through this move, American influence remained solid in Western Europe without using up domestic oil supplies. (Auzanneau [2018] p. 193) These measures by the Americans seem to disprove *H2.* because despite the abundance domestic oil sources and the strong indirect control methods of the United States ensured its access to a vast oil supply, its foreign policy focused on this resource in multiple ways. It pursued alliance formation based on oil supply with regards to Saudi Arabia for example, and it used oil as a source of power projection and dominance over former Great Powers such as France, and with time even over the UK as well. These measures support the *H3.* because *when Great Powers cannot maintain access to oil supplies in order to keep their power projection capabilities at a similar level as other Great Powers, they lose their status of being one.* This phenomenon happened with European Great Powers and with Japan as well after the Second World War. Furthermore, *H1.* is supported as well, since the United States and the Soviet Union still had access and indirect or direct control over the majority of the proven reserves at the time.

11.3. Suez Canal Crisis

The year of 1956 brought unforeseen events not just in Central-Eastern Europe, but in the Middle East as well. During the events of the Hungarian Revolution of 1956, Egypt led by Nasser decided to nationalize the Suez Canal. France and the United Kingdom did not sit idly when this major blow was dealt to their influence. The Canal was open in both peace and wartime since the Constantinople Convention that was signed on 29th October 1888. (Constantinople Convention [1888]) Both France and the UK thought that the popular Nasser would not respect this convention because the previously privately owned Canal was nationalized on 12th July 1956. The mainly British and French private owners had the concession rights for the canal for another 12 years when this happened. The reason why Nasser nationalized the Canal was mainly financial, because previously the United States and

the World Bank did not give Egypt financial support for building Aswan Dam. (Halmosy [1985] p. 325)

France, the United Kingdom and Israel met in Sévres and decided that they carry out a military intervention in order to regain control over the Canal. This action war part of the direct control anticipatory strategy to maintain and improve the position of France and the UK. These two states tried to preserve their power and secure their oil shipments through the region. They resorted to a risky strategy, because their relative power has been declining since the end of the Second World War, and their access to material resources through decolonization efforts. These actions are in line with *H3.* After the attacks begin, the Soviet Union sided with Egypt and so does the USA and the United Nations. (Horváth et al. [2013] p. 120)

The United States decided not to strengthen the position of its close allies (France and the United Kingdom) but rather to cool off tensions with the Soviet Union and the Arab world. The coming US presidential elections, the end of imperialism and the potential conflict in the region demanded peace not war. The Canal was and still is responsible for a major trade traffic including petroleum products. At the time of the crisis, half of this traffic was connected to oil. Even a short-term closure would have meant a crisis in oil shipments from the Middle East. President Eisenhower framed the question in front of Congress as a potential threat of spreading communism in the region. It is true, if France and the United Kingdom still behaved like an imperialist country after the Second World War, the good ties to the Middle East would have been very hard to maintain for the United States as well. In order to prevent the spread of communism economic and military aid was provided for the strong and independent Middle Eastern nations. (Eisenhower [1957])

The President was probably right about the potential spread of communism, and the major oil producer United States could not let the Middle East become hostile to it. The oil exports of the region were vital to the European countries (allies of the Unites States). The United States could not substitute the potential loss of such a major producing region from its own resources so it had to reassess its foreign policy priorities. At this time, the interest of France and the United Kingdom were secondary to the conservation of good relations with the Arab

world. This foreign policy direction can be explained through the question of control over oil. The Suez Canal crisis is another example that weakens the proposition of *H2.* because the USA's foreign policy was focused around oil and not around keeping its allies' interest at the forefront.

11.4. The United States and the Oil Crisis of 1967

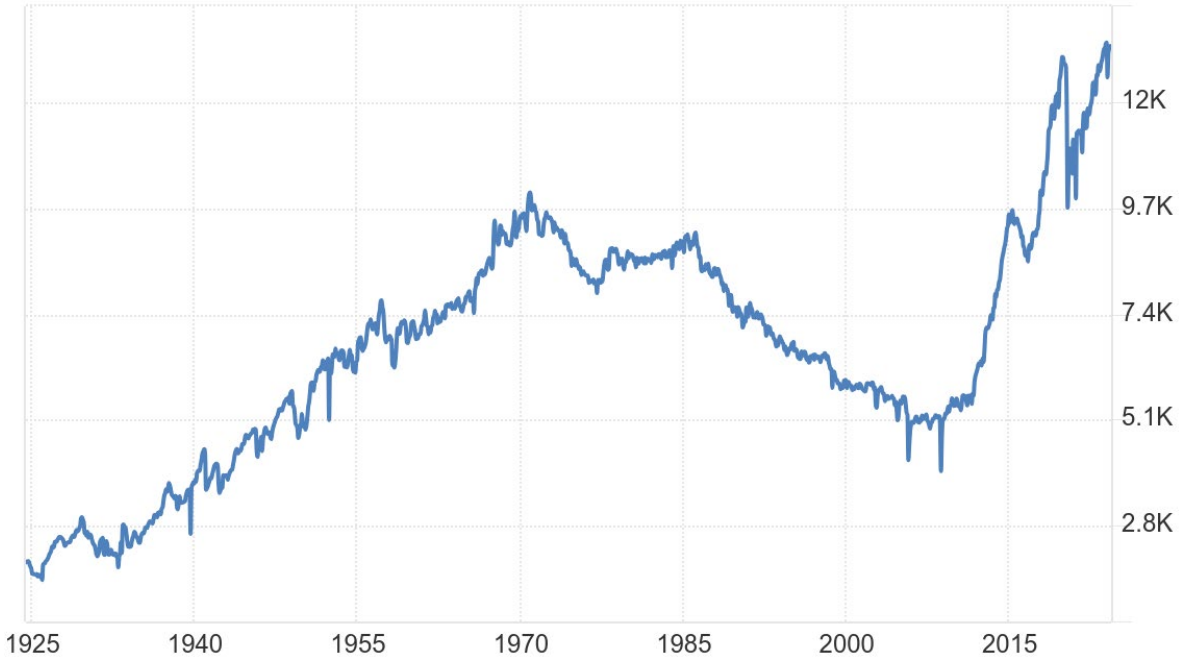
The oil market became more calm after the Suez crisis. The oversupply of oil made President Eisenhower sign the Mandatory Oil Import Program in 1959. This initiative imposed a quota system on oil imports to the United States in order to provide price stability and profits for domestic producers. The aim of the program was to defend the American oil industry and led to an increased independency from foreign producers. (Bialos [1990] p. 245)

The organisation of the oil producing countries started to take shape in 1960 when they created the OPEC. I mention in the case of Japan how important was this organisation in influencing the oil market, especially in the second half of the 20th century. Initially, the United States as a result of its sufficient domestic production did not dealt with the OPEC and felt little of their influence if any.

The power of the Arab world started to show before the first major oil crisis in 1973. The Six Day War in 1967 showed that oil could be used as a weapon by the Arab states. It was their only effective response against Israel and its supporters. Due to the support provided by the United States to Israel in 1967, the Arab oil ministers decided to halt oil shipments to United Kingdom and the USA. The embargo only lasted for a few months because the short-term effects of the embargo were not experienced by the Western powers. This was due to the fact that the United States did not import too much oil from the region because of the Mandatory Oil Import Program. As a result of the program, foreign partners supplied only 9 percent of total oil consumption of the United States. In addition to that, Canada and Mexico received

preferential treatments so Mideast oil was only a fraction of oil consumption at the time of the Six Day War. On the other hand, the United States responded to the embargo effectively by increasing domestic production one million barrels per day to show force and to counter any negative effect of the embargo. (Council on Foreign Relations [2018])

Figure 22. **U.S. Crude Oil Production (BBL/D/1K)**



Source: Tradingeconomics.com [2024]

The case of 1967 shows how a diversified economy with relatively huge oil industry can "survive" a situation that could have been very damaging for its economy. The oil crisis of 1967 seems to support *H2. Ensuring access to crude oil influences the foreign policy of Great Powers. The less oil resource one state has control over, the more its foreign policy is focused on it.* The United States possessed the economic background to offset the effects of a short-term embargo and did not make any change to its foreign policy directions. This means that a country with diversified economy and huge oil reserves can ignore the changes in the oil market such as an embargo.

There are several reasons behind why 1967 did not become the first major oil crisis:

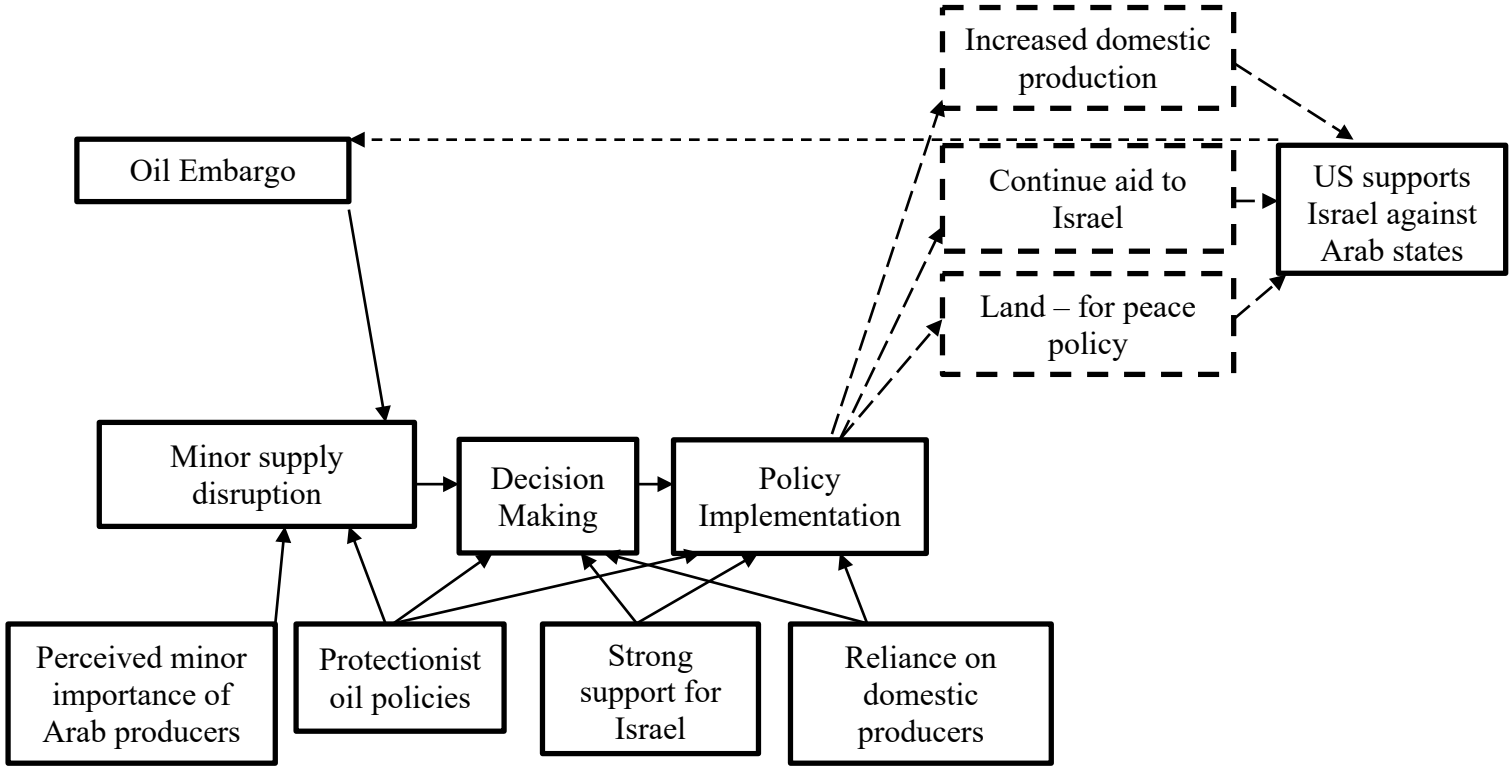
- The United States at the time was a major producer in terms of petroleum products.

- The prices were artificially kept above the normal market prices by the import quota therefore there was room to manoeuvre.
- The halt of shipments by the Arab countries suggested that the embargo would be temporary and it was only imposed on two countries: the USA and the UK.
- US domestic production was not maximized, because only 91 percent of domestic production was necessary in order to satisfy consumer demands, the import 9 percent was cheaper. The production capabilities of the domestic oil industry was artificially kept low by governmental regulations. Production could be increased by a lot (in this case by one million barrels per day) in a time of crisis.
- The conflict did not last even for a week and Arab countries lost a lot of negotiating power by losing the war quickly.

These conditions helped the United States to weather the storm in the second macro period.[42] This degree of American control over oil sources has been slowly diminishing in the 20th century. As long as the conditions were favourable and a Great Power has enough leeway to get oil sources quickly and cheaply, it can pursue its foreign policy without major diversion due to energy security.

[42] See more about the second macro period in Chapter 10.2

Figure 23. **Neoclassical Realist Model of the Oil Embargo of 1967**



Source: Edition of the author based on the model developed by Ripsman, Taliaferro, Lobell, [2016] p. 34

Figure 23. above shows the neoclassical realist model of the 1967 oil embargo. The supply disruption would have put enough systematic pressure on the USA to divert its foreign policy, but the unit level variables and characteristics of the USA intervened in the decision making and policy implementation process. The model further emphasizes the relevance of neoclassical realism compared to neorealism. Neorealist theory handles states as rational unitary actors that react same to systematic forces.[43] In contrast, neoclassical realism incorporates unit level variables. These unit level variables explain the actions of the United States during the 1967 embargo. The perception of minor importance of Arab producers, protectionist policies and strong support for Israel at the time all contributed to the defiance

[43] More about neorealism in Chapter 6.2

of the United States to the embargo and the endurance of aid to Israel. In the next chapter, neoclassical realist theory can explain again why the 1973 oil crisis differed from 1967.

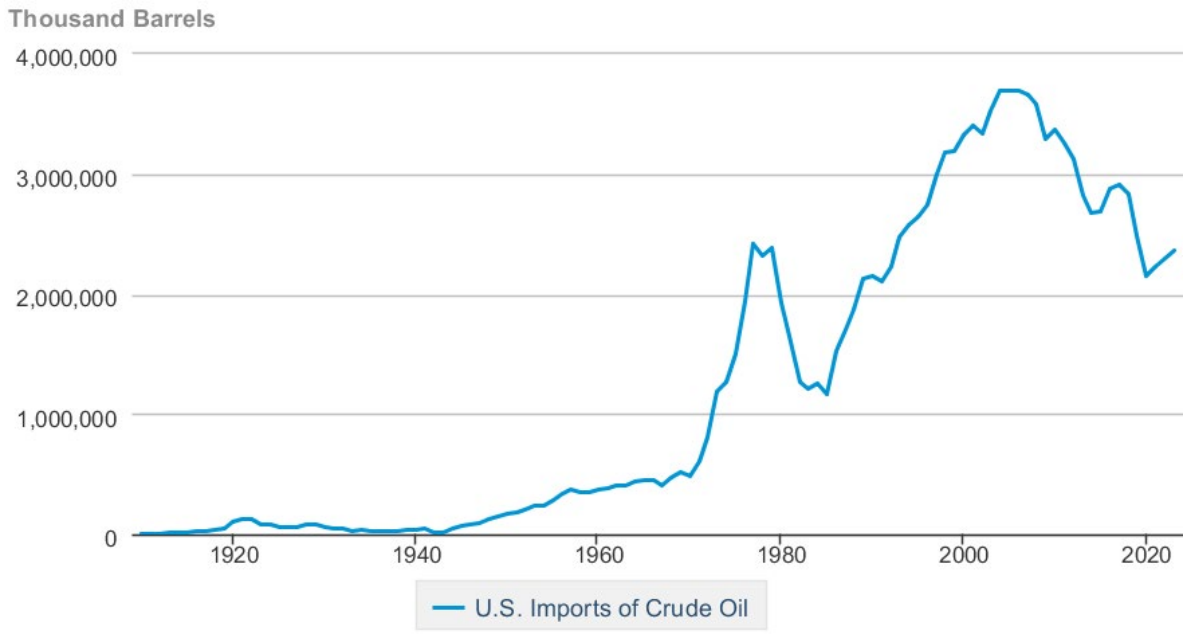
11.5. The First Major Oil Crisis in 1973 and the Second Oil Crisis in 1979

The oil crisis of 1973 and 1979 shows that the United States is not immune to oil shortages despite its relatively good economic position. The Mandatory Oil Import Program provided some room for making adjustments in the short-term. In addition to that, foreign policy decision making was easier to make regarding the Middle East and Israel, because there was oversupply of oil in the 1960s in the USA. The production capability of the United States became less sufficient in the beginning of the 1970s. President Richard Nixon ended the Mandatory Oil Import Program fourteen years after its start. (Council on Foreign Relations [2018])

Prior to the ending of the program President Nixon created a Task Force on Oil Imports to calculate how oil prices would fluctuate in the 1970s. The Task Force made projections based on the information gathered from the major oil companies, the Department of the Interior and the National Petroleum Council. The price of one barrel of oil is very hard to calculate, because major events can seriously alter its accessibility. Embargo or a conflict near the Suez Canal or the Strait of Hormuz can change the price of this commodity tremendously. This task force predicted that the prices would increase only in a modest fashion and the United States could remain almost entirely self-sufficient in oil. Moreover, the oil imported from the Western Hemisphere could cover the necessary imports. The calculations of the Task Force were wrong. They predicted that only five million barrels per day would need to be covered from abroad by 1980. In fact, already in 1973 six million barrels per day was needed to supply the USA with enough crude oil. (Akins [1973]) The Task force as a unit level factor further supports neoclassical realism's explanatory power, since a domestic actor influenced the

foreign policy and energy security of the United States, instead of a systemic factor as neorealism would suggest.

Figure 24. **U.S. Imports of Crude Oil**



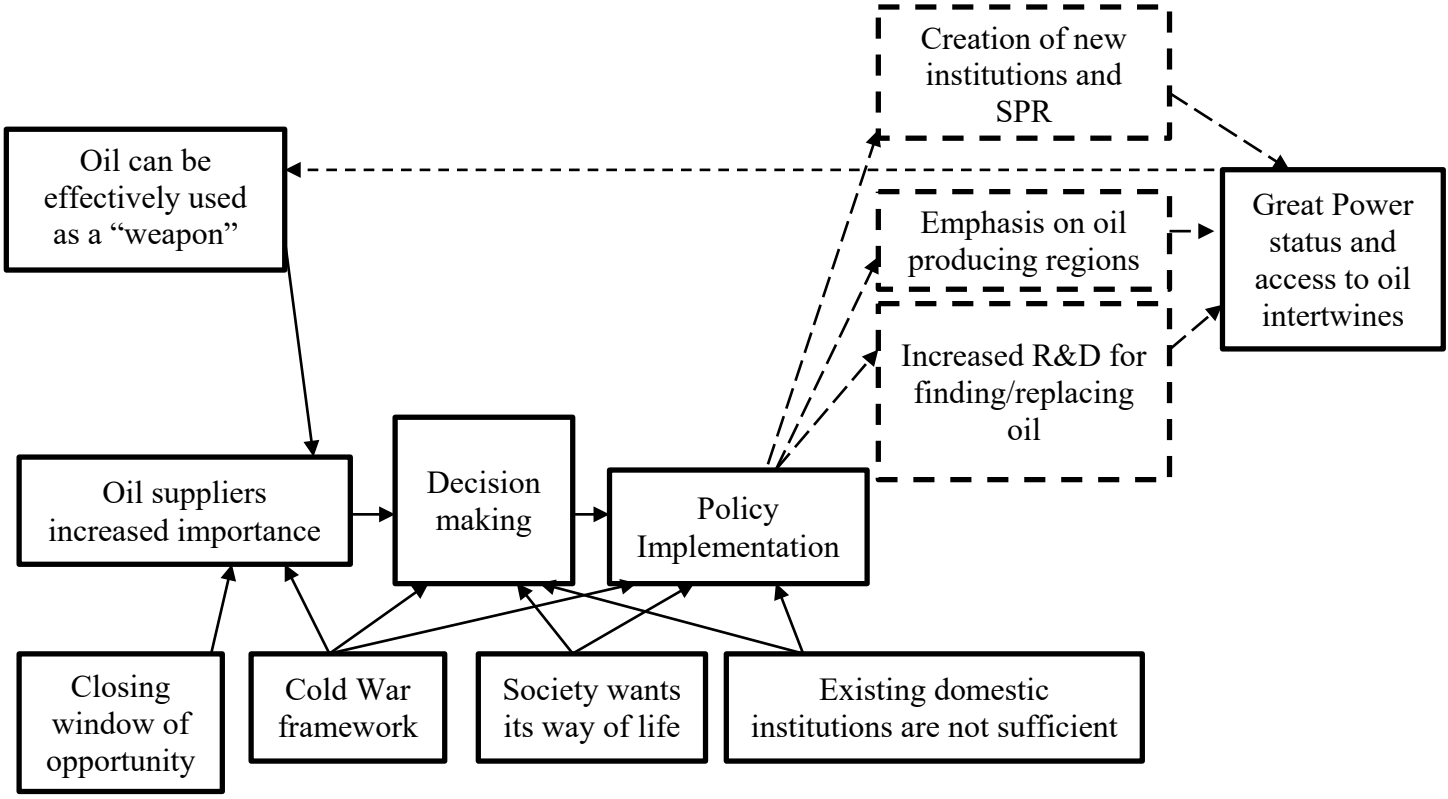
Source: U.S. Energy Information Administration [2024]b.

The import quota was lifted, but President Nixon did not tackle the long-term problem of the United States before the oil crisis. The real threat to the American economy is not just the insufficient domestic oil production capabilities, but also the structure of the American way of life and the American technology. The years of surplus oil made the automobile loving nation wasteful in terms of fuel consumption and less focused on developing alternative energy fuels. Abundantly available and cheap oil provided a comfortable way of life without being concerned with fuel conservation and developing expensive innovative new energy sources. As the example of the Second World War showed, even in the time of a major war, the United States seemed to have plentiful oil; its restriction was to conserve the tires of the vehicles and not the conservation of fuel. Up until the 1970s, this question was not in the forefront in the public eye. It is enough to think about the history of this country in the century prior to the 1970s. The oil industry started from this country, Rockefeller, Standard Oil, major

oil producing regions were the trademark of the United States. The short-lived embargo of 1967 could only strengthen the position of the country in the eyes of the average citizen.

However, the United States imported only around half a million barrels of oil from the Arab countries in 1967. If we compare the situation in 1973, we see a tremendous shift. The import from Arab countries increased significantly in a few years' time and the United States faced threats from the Arab world regarding using oil as a tool to exert influence. (Akins [1973])

Figure 25. **Neoclassical Realist Model of USA's 1973 Oil Shock**



Source: Edition of the author based on the model developed by Ripsman, Taliaferro, Lobell, [2016] p. 34

The Yom Kippur War was the first catalyst of showing the United States that its own resources no longer shield it. The Arab-Israeli conflict drew the attention of the superpowers

to the region. The United States supported Israel and President Nixon announced an emergency military aid package worth $2.2 billion[44] to Israel. (Finney [1973])

The Arab states were not happy about the involvement of the United States in their struggle against Israel. The major military aid provided by the Americans demanded a response by them similar to the embargo of 1967. The situation however was very different in 1973 in terms of economic relations between the Arab countries and the United States. The embargo of 1973 immediately reduced the volume of traded oil by 14 percent around the globe. (Council on Foreign Relations [2018])

Figure 26. **Crude Oil Prices from 1861 to 2010**

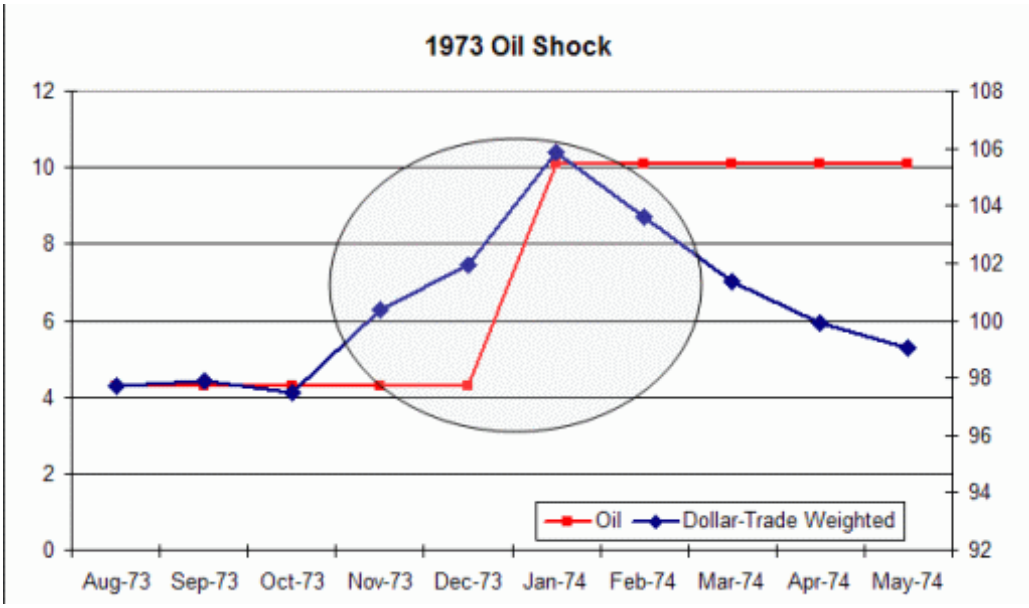
Source: Dale [2013]

The volatility of the oil market showed its effects quickly. The price of oil per barrel quadrupled posing a major economic trouble for the United States. The previously stockpiled oil supplies provided only a short-term solution to the problem. President Nixon and Secretary of State Henry Kissinger had to focus their attention to the Middle East and to the Arab world. The Americans facilitated the closure of the conflict between Arabs and Israelis, and simultaneously negotiated with key oil producers as well to end the embargo. The

[44] Worth around $15.56 billion in 2024 if we adjust it for inflation

successful negotiations resulted in lifting the embargo in March 1974, but the implications of it were dire compared to the one in 1967. (Office of the Historian [2018])

Figure 27. **How Does an Oil Crisis Impact the Dollar?**



Source: Lien [2008]

The United States was a superpower during the Cold War, but since 1973, it has been clear to the public as well, that it cannot ignore the Middle East as a major player in devising its foreign policy. Therefore, *H2.* is less correct compared to the case of 1967. The United States had to divert its foreign policy due to the fact that Arab suppliers were more important to the economy than before. The USA could no longer weather the storm of an oil crisis. The criteria outlined in the previous chapter was not met, therefore the United States could not devise its foreign policy without consideration for Arab oil producers. The systemic forces of the international system directed American foreign policy in a way to retain its relative power by appeasing oil suppliers from damaging the American and world economy. The intervening

unit level variables further strengthen the systemic pressures, in contrast to the case of 1967, where intervening variables reduced them.[45]

The military interventions of the United States in the 21st century and the war on terror could easily mask the fact that the USA had to devote special attention to the region before the 9/11 attacks. The foreign policy of the United States has an inherent contradiction. The traditionally Israeli and Jewish friendly United States has to maintain good relations with major oil producing nations, because crude oil produced by these countries has to be secured for the USA and its allies. Regardless of the efforts of the United States to carry out renewable energy source research, and promoting fuel-efficient vehicles for its citizen, oil shipments has been a major concern for the USA since then, which is another case for disproving *H2*.

11.6. The First Gulf War

The oil crises of the 1970s showed that the United States had to be careful if it deals with oil rich nations. Several conversation strategies and energy diversification steps made the United States more independent in the 1980s. Democrat and Republican presidents both endorsed these type of policies in order to make room in the field of foreign policy. This characteristic shows the advantage of a large and diversified economy. The United States had the economic might to invest in these technologies and moderate its oil dependency without using diplomatic solutions (i.e. using internal balancing efforts instead of external ones).

Iraq's invasion of Kuwait was the first real test of the effectiveness of these steps. On 3rd August 1990, Iraq invaded Kuwait and quickly defeated the tiny oil monarchy. The leader of

[45] For comparison see Figure 23. and Figure 25.

Iraq, Saddam Hussein captured 20 percent of the world's oil reserves and controlled an important part of the Persian Gulf coastline with this military move. (History.com [2018])

The aggression was surprised a lot of international actors and no one was eager to side with Iraq. The UN Security Council condemned the actions of Saddam, the United States, the Soviet Union, France and the United Kingdom started to take action in order to show their condemnation for the invasion. The leaders of the Arab world held an emergency meeting. (The Guardian [2018])

Many nations including the United States froze Iraqi assets. The USA imposed an embargo on all trade with Iraq. President George H.W. Bush emphasized in his speech on 8th August 1990 that although the Iraqi aggression was outrageous the potential economic impact could seriously hurt the world economy (including the USA). The president's speech included:

"I will ask oil-producing nations to do what they can to increase production in order to minimize any impact that oil flow reductions will have on the world economy. And I will explore whether we and our allies should draw down our strategic petroleum reserves. Conservation measures can also help; Americans everywhere must do their part. And one more thing: I'm asking the oil companies to do their fair share. They should show restraint and not abuse today's uncertainties to raise prices. (Bush [1990])"

The speech paints the reality of the world in the 1990s clearly. The United States, the Soviet Union the two tier 1 Great Powers both condemned Iraq for its aggression. The United Nations, major Western powers and the Arab countries declared their opposition to the move of Saddam Hussein. This alone would have meant a clear message to any country with the position of Iraq without oil. The impact of oil was so apparent that the President used the power of a public speech in order to prepare the nation and the world for a potential third oil crisis.

The multinational military intervention liberated Kuwait, and Iraq surrendered in February 1991, six month after the beginning of the conflict. The Bush administration limited its actions and tried to avoid another major oil crisis by releasing more than thirty million barrels of oil from the previously mentioned U.S. Strategic Petroleum Reserve. This move proved

more effective than the Administration anticipated. The fast and successful campaign and the utilization of the SPR calmed the oil market and in the short-term oil prices decreased instead of going up. (Bamberger [2009] p. 8)

The cases of the 20th century show, the United States had the power to maintain its foreign policy course up until the 1970s. *H2.* is correct, only when the following conditions are met by a Great Power:

- Control over abundant oil sources
- Short period of disruption of oil supply (or the crisis does not impact the global oil production)
- Access to reserves that can boost production
- Direct or indirect means of increasing daily oil production independent of the crisis

However, these conditions are rarely met. Even if they are met the potential prolongation of the crisis divert foreign policy decision making in focusing on oil supply questions, which reduces the chance of *H2.* being a correct proposition.

11.7 The Case of Unocal

Conflict over crude oil resources and production is likely to manifest as the case of Unocal Corporation. The century old American energy firm with substantial oil and gas reserves in North America and Asia received an offer from a state-controlled Chinese company CNOOC Limited in 2005. The $18.5 billion bid overshadowed the second bid, which Chevron Corporation made. In the previous decade, foreign acquisition was not a problem in the USA; a Venezuelan state-owned oil company could buy Cities Service (now CITGO) with its refineries and service stations. However, in the new century, the growing power of the Chinese economic giant seemed to manifest in the heart of the American continent. The acquisition of a private American company suddenly became a political issue. After several

congressional measures and public pressure, CNOOC withdrew its offer (even though it stressed that it was purely a business decision without any geopolitical intention) and Chevron Corporation's $16.5 billion offer won. (Klare [2008] pp. 1-8)

Almost two decades have passed since 2005 and we have not seen conflict over crude sources intensify. However, that does not mean that national interest will be more prevalent in the coming years as fossil fuel sources eventually become scarcer and scarcer. Major Powers clearly viewed access to crude oil as a national interest, but so far only in the Second World War went to actually total war for it. Resource scarcity could end the current economic order of free trade and push states to be more autarkic considering the implications of energy shortage on their economic and military power. One of the most unfortunate phenomenon for world peace is that the two top consumer of energy is China and the United States. The relative rising power of China encourages the country to be bolder in acquiring concessions from oil and gas rich states, while the United States watches with more and more concern the growth of the Chinese economy and power. The rising influence of China inevitably trigger balancing actions from concerned states. If history is any guide Chinese public officials overcame balancing coalitions several times with divide and conquer strategies. From 770 BC to 221 BC, after several centuries of wars Qin overcame the multistate system and became the universal empire of the region. In addition, even between the period of Mongol invasion and the rise of Japan and Europe's power in East Asia (approximately the 14th and 19th century) Chinese dominance was not met with significant balancing coalitions, even when Chinese power was fluctuated. (Kaufman, Little, Wohlforth [2007])

These examples can be a warning for the United States or any other power that balancing coalitions against China has little historical precedence in the region. Only after the relative power of China has declined significantly as Table 20 shows would the Western powers and Japan mount any significant challenge to the Chinese rule in the region.

Table 20. **Per Capita Level of Industrialization** (UK in 1900=100)

	1750	1800	1860	1913	1928	1953	1980
China	8	6	4	3	4	5	24
Japan	7	7	7	20	30	40	353
India	7	6	3	2	3	5	16
United States	4	9	21	126	182	354	629
Developed Countries*	8	8	16	55	77	135	344

*Austria-Hungary, Belgium, France, Germany, Italy, Russia, Spain, Sweden, Switzerland, UK, Canada, United States, Japan

Source: Bairoch, [1982] pp. 269-334; Kang [2007] p. 205

However, the rising power of China in the 21st century showing anything but a weakened China. The question whether balancing would work can shape international relations and the world order in the coming decades and centuries and one of the cornerstone of containing China and its power is the energy access of the country. China does not have sufficient gas and oil resources to maintain its growth therefore access is crucial for the state to exercise its power potential. Signs of increased Chinese expansion to acquire oil sources are prevalent. In a period where China is considered to be equal to the United States in power a new type of competition for energy could occur.

11.8. USA's Oil Policy in the 21st Century

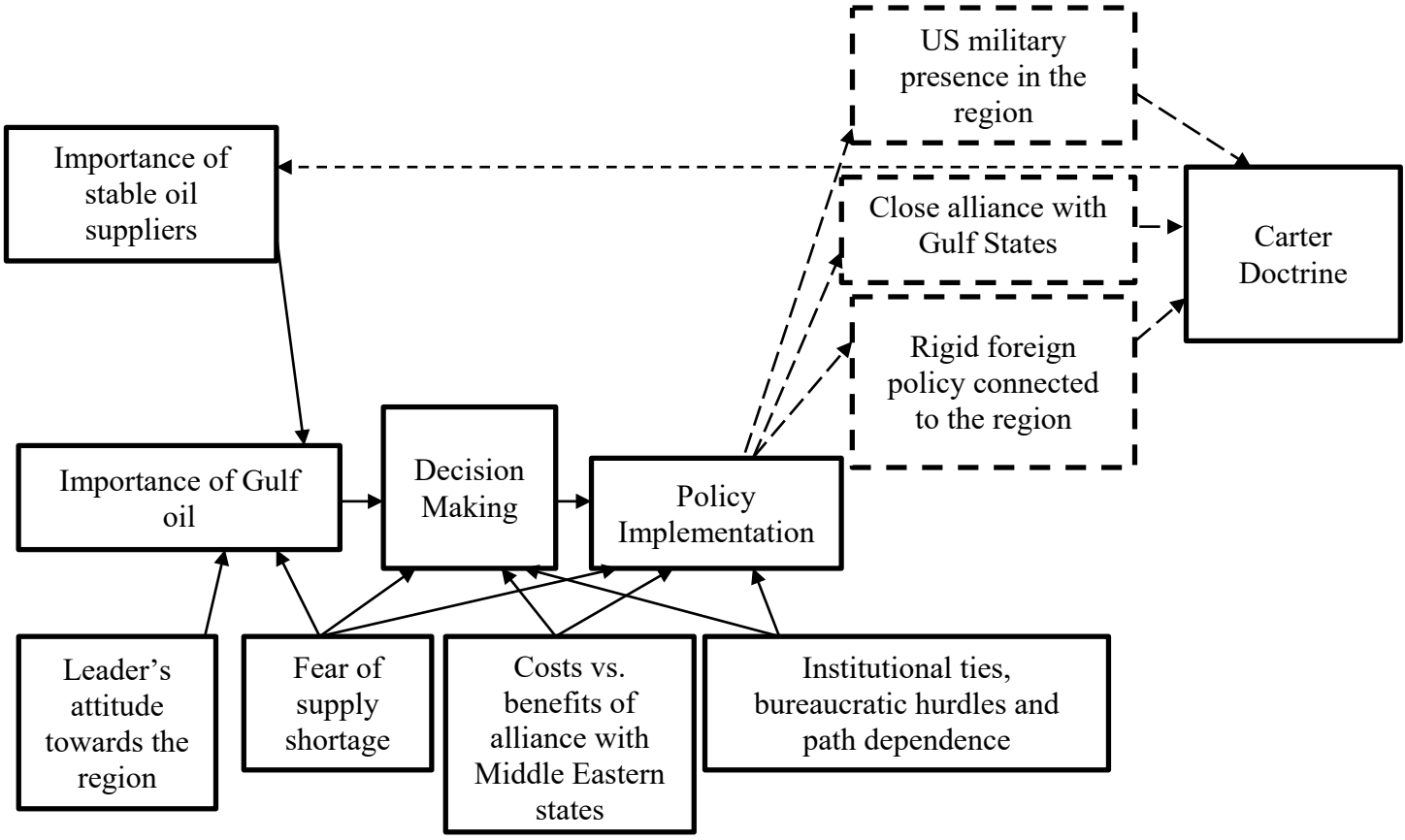
The emphasis on oil production has always been a popular approach in the USA. The fracking industry and subsidies on domestic oil production has been aiming to keep the USA among the top producers of crude oil. Foreign relations base energy supply security in the forefront especially in the Gulf region. (Çora [2020])

The Carter doctrine and the maintenance of the security umbrella in the Gulf costs the USA around $50-$100 billion per year. (O'Hanlon [2010]) This enormous cost is justified by the USA in order to secure stable, good quality, cheap oil for its and the world's economy. (Collins, Krane [2017]) However, there are numerous factors that could weaken the Carter doctrine.

- Increased domestic production due to new technologies, lowering US oil import dependence
- Rising number of Western Hemisphere suppliers diversify potential oil suppliers
- Increase popularity of isolationist policies due to heavy unfavourable US involvement in the Middle East
- Saudi opposition to US policies (Arab Spring, Iran, Iraq)
- Potential US-Iran rapprochement would require reduced Gulf presence. (Lippman [2016])
- Oil demand growth shifts the focus from OECD nations to Asia.
- Climate-driven policies transforming the transportation sector to increased energy efficiency and more non-oil propulsion vehicles reducing the demand on oil. (Krane, Medlock [2018])

The above-mentioned factors reduce the need of American involvement in the Middle East. However, the maintenance of the Carter Doctrine and heavy US present in the region is not outdated. Saudi Arabia's close ties to the USA and its spare production gives an enormous power to the USA. These measures and the necessity of the Carter Doctrine indicates that *H2.* is not verifiable since the United States devotes considerable resources of focusing its foreign policy on securing oil supplies regardless of its domestic capabilities.

Figure 28. **Neoclassical Realist Model of the Necessity of the Carter Doctrine**



Source: Edition of the author based on the model developed by Ripsman, Taliaferro, Lobell, [2016] p. 34

America's efforts towards energy independence through support for biofuels and reactive oil policies following several oil related debacles (offshore oil spills, Libyan conflict) during the Obama presidency proved insufficient. Obama increased efforts to diversify the portfolio via rapprochement to Venezuela and Iran to dampen oil price instability. However, these measures were insufficient, and even partially reversed by the following Trump presidency. The Trump administration tried to incentivize hydraulic fracturing, and President Biden used the SPR strategically to keep the oil prices down for domestic consumers while global prices soared. (Ogolo [2024] p. 5; Hernandez [2023])

11.9. Conclusion

The modern oil industry began in the United States in the 19th century. A lot has happened since then and the effects of oil made a lasting impact on the history of the world. The abundance of oil in the first few decades skyrocketed the economic might of the United States, but the discovery rate of oil in the 1910s, made the USA worried for the first time. The Second World War showed how important oil is to economies and the United States as a major producer could carry out major military operations on the vast Pacific Ocean thanks to its own large fuel supplies. It helped the country to defeat the Japanese who struggled without the black gold. The United States used oil as a support tool for the Allies during the Second World War. The Marshall Plan involved many oil shipments from the USA to Europe as well to tie the economies closer and to benefit both parties. The United States used its oil resources as a foreign policy tool to bring the Western European countries closer to the Western Hemisphere. The Soviet Union saw this influence as a threat that is why its satellite states in Central-Eastern Europe did not ask for the European Recovery Program.

The Cold War showed the United States that some of its allies possess valuable resources such as Saudi Arabia and it started to support the country financially in order to secure a major oil producer on its side. Oil as we know did not show its great economic potential in the negative sense until the 1970s. Oil crises shocked the world and the United States realized no matter how big player it is, the country is no longer self-supporting. The oil crisis of 1973 and 1979 showed the USA that something has to be done in order to achieve a wider playing field for its foreign policy. Regardless the fact that the United States was a tier 1 Great Power during the Cold War, it had to work more actively for energy independence after the 1970s. Presidents since Nixon established more and more fuel conservation strategies and invested in heavily in renewable and other energy resources to counter the threat of the oil weapon. The Six Day War in 1967 and the First Gulf War in 1991 showed that the United States as a major oil producer could withstand the “oil weapon” only for a short period. The crisis of 1973, 1979 and the speech of President George H.W. Bush showed that even a diversified economy with the greatest military and economic might could not conduct its international

relations without taking heavily into account the question of oil. The case study of the United States supports *H1.* and *H3.* but it is not supporting *H2*. The United States had access to a vast amount of oil reserves, therefore it could maintain its status as a tier 1 Great Power, however its foreign policy had to devote special attention to energy and oil security regardless of its own relatively good reserves and production capabilities.

12. Case Study - Japan[46]

In the early 20th century, Japan's relations with the oil rich regions were disadvantageous. The USA was a rival in the Pacific region, and the Gulf region was under British dominance. Japanese products were a threat to the British influence, so the latter did not welcome Japanese exports to the region.

The importance of the Gulf region increased tremendously after oil was discovered in the Arabian Peninsula in the 1930s. Parallel to the discovery of oil, Japan and the Gulf region based their economic relations on this commodity. Meanwhile, Japan was carrying out a major conquest in East Asia so its military was in dire need of this resource more than ever before. The Japanese government enacted the Petroleum Industry Law in 1934, which meant price fixing of oil and required the foreign oil companies to maintain vast reserves of oil. (British Official Wireless [1934] p. 14)

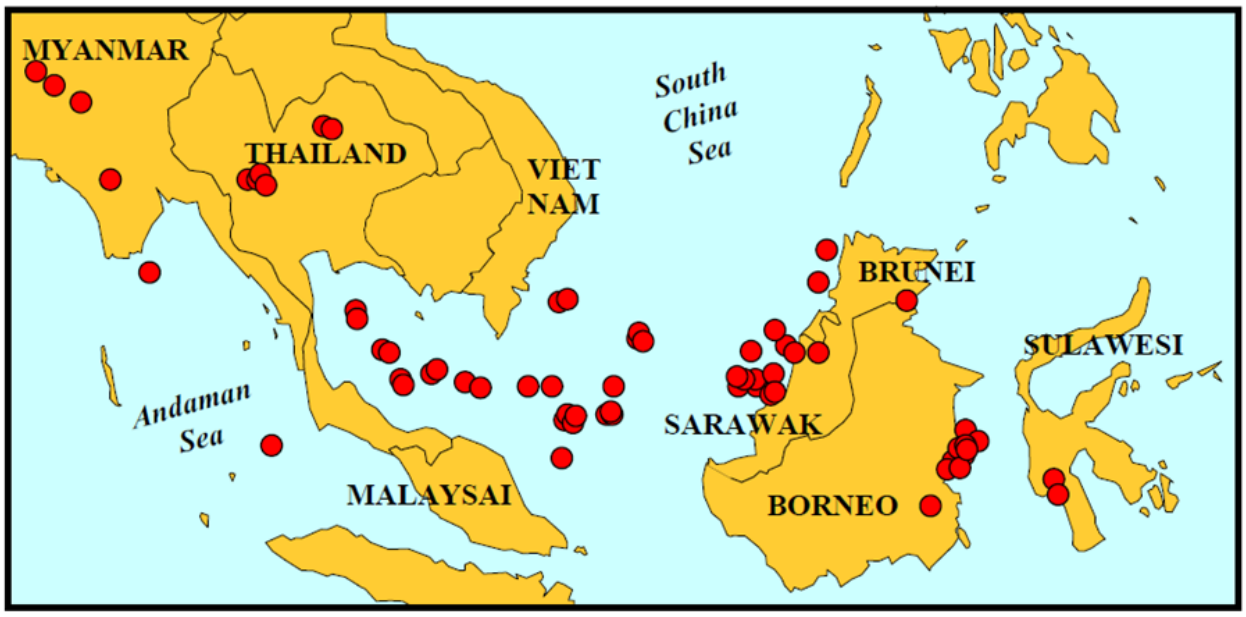
Below I try to show how oil diverted foreign policy of Japan with the help of historical examples. One of them is a pre-World War II. case: the Dutch East Indies, the other is a post-war case study, the case of the first oil crisis from 1973. These case studies demonstrate how important was oil for a militant Japan and how important was it for a pacifist one as well. Furthermore, I add the contemporary measures Japan makes to balance against oil shortages.

[46] Earlier version of Chapter 12 was published in Mezei, A. [2019]: *Oil Dependence, Strategy and Foreign Policy: The Case of Japan* Köz-gazdaság pp. 216-226

12.1. Japan and the Dutch East Indies in the First Half of the 20th Century

The Japanese tried to colonize the Far East region and their economic influence spread even further than their military power. For example, one of the relatively oil rich regions was the Dutch East Indies which include Sumatra, Borneo, Java, Dutch Guinea, Madura and Celebes. Today these territories are part of Indonesia. The region produced 99 percent of the world's quinine supply, which is an important medicine against malaria, 50 percent of its wrapped tobacco, 20 percent of its copra and tin. However, one of the most important aspect of this region was that it produced 11 percent of the world's petroleum. In addition to petroleum in the 1930's, theoretically the island had enough resources to satisfy the total demand for rubber all around the world. (Clair [1937])The map below shows the territory of the former Dutch East Indies and their crude oil sources. As we can see especially Sarawak, Brunei and Borneo was rich in easily accessible oil reservoirs that were controlled by the Dutch and the British before the war broke out.

Figure 29. **Regional Petroleum Geochemistry of Crude Oils from Myanmar, Thailand, Vietnam, Malaysia, Sarawak, Sabah, and Kalimantan**



Source: GeoMark Research [2018]

Seizing the market of the Dutch East Indies, the Japanese could possess valuable resources that support their conquest, and secure several important products. This peaceful "conquest" of foreign and trade policy was reflected in the import numbers of the Netherlands Indies, since the territory was not just important in terms of source for materials. It was also important to penetrate the island and build closer economic ties with Japan since the Japanese needed markets for their products as well. Furthermore, a peaceful penetration of market could bring closer the native population to Japan, which could help them out in the event of a war. The native population could perceive the Japanese as liberators who fight the colonial overlords.

This task was hard to carry out for a power like Japan before the Second World War. Colonial empires showed the spheres of influence all around the globe and the Dutch East Indies were no different in that matter. Japan's share of import in the 1909-1913 period was only 1.25 percent, which was virtually non-existent. (Clair [1937]). Japan tried to secure the region and

bring it closer to its empire, which is reflected in the import numbers of the region related to Japan and the Netherlands.

Table 21. **Japan's Trade with the Netherlands Indies**

	1928	1929	1930	1931	1932	1933	1934
NETHERLANDS	20.05	19.62	18.92	17.44	15.76	12.37	12.98
JAPAN	9.54	10.55	11.68	21.24	21.24	31.03	31.88

Source: Clair [1937]

The importance of oil rich regions such as the Dutch East Indies showed during the coming years. As early as August 1941, the British who controlled the islands with the Dutch implemented a scheme that reduced the oil output by 70 per cent. In the light of the attack on Pearl Harbor the British ordered the total destruction of oil fields and air fields. (Hackett [2018])

They knew that after Japan entered the war openly, they would very much likely capture this region for their war aims, especially because of its oil richness. After just several days of the attack on Pearl Harbor the Japanese landed on the island on 16th December 1941, to capture the oil fields and refineries. The Dutch tried to sabotage the future of Japanese oil production by destroying several hundred oil wells. In spite of their effort, the refineries on Borneo supplied Japan with approximately 35 per cent of its petroleum products during the war. (Hackett [2018])

At the beginning of the war, the United States tried to avoid the armed confrontation as in the case of the First World War. However, the Japanese carried out hostile moves during the 1930s and early 1940s that raised the tension between the two countries. The United States was a major player in terms of oil production; it controlled 60 percent of it in the beginning of the war. The second and third most important producer at the time was Russia and Venezuela. Japan heavily relied on the US oil shipments. (Yergin [1991])

Table 22. **Japan's Dependence on Oil Import in 1940**

COUNTRY FROM	AMOUNT	PERCENTAGE
United States of America	Btw 3,820 – 4,366 kt	80
Dutch East Indies	Btw 621 – 709 kt	13

Source: Arima [2003]

Japan knew that certain military moves would cause retaliatory actions from the United States even before the US and Japan entered into direct military conflict. The easiest way of pressuring Japan and slowing down its military actions was to decrease the oil exports to Japan from the United States. In order to counter these measures Japan began to stockpile oil prior to the sanctions as a balancing act, but was unable to secure a large enough supply. (Yergin [1991])

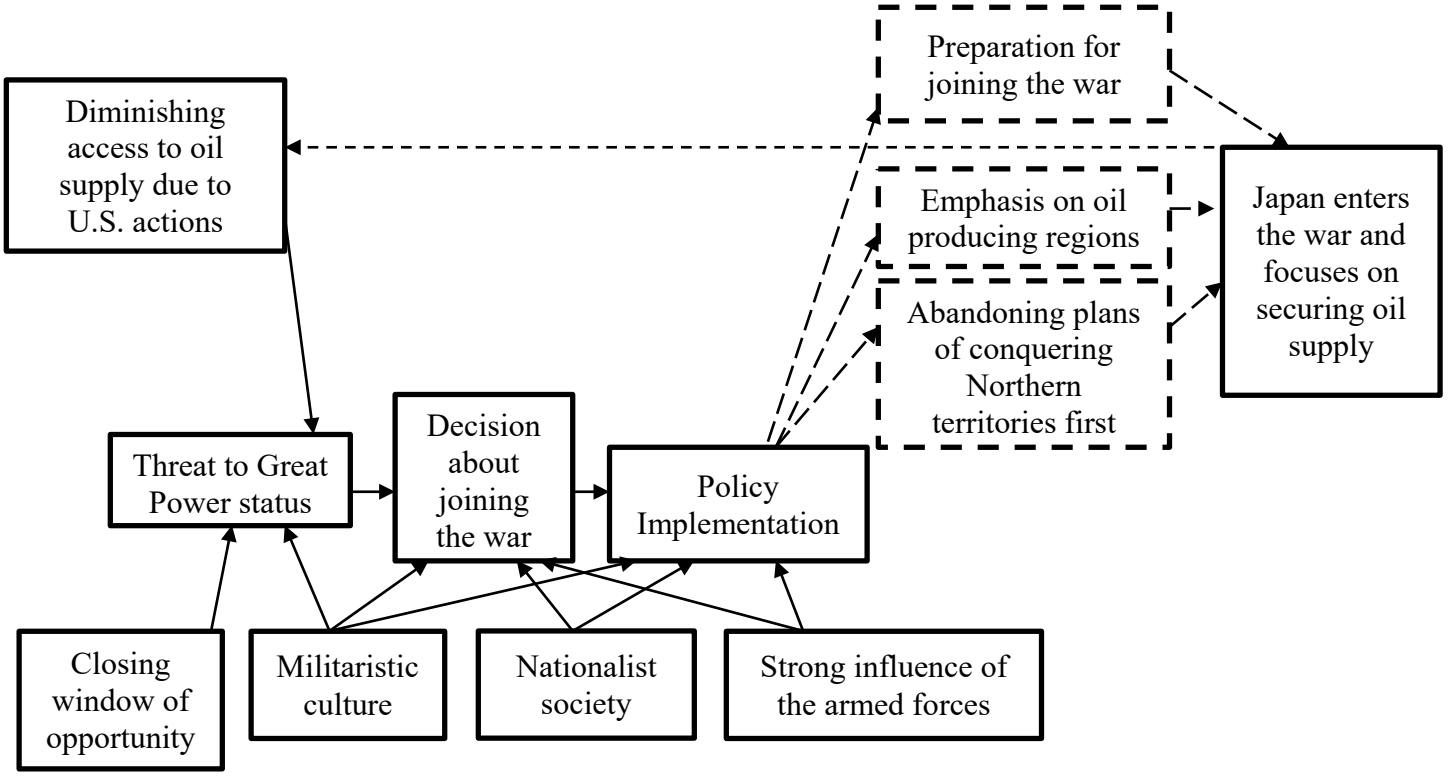
Table 23. **Japanese Oil Inventories in Thousands of Barrels**

FISCAL YEAR	CRUDE PETROLEUM			REFINED PRODUCTS			STARTING INVENTORIES			CONSUMPTION
	Imports	**Production**	**Total**	**Imports**	**Production**	**Total**	**Imports**	**Production**	**Total**	
1941	3,130	1,941	5,071	5,242	15,997	21,239	20,857	28,036	48,893	36,974
1942	8,146	1,690	9,836	2.378	16,674	19,052	12,346	25,883	38,229	41,790
1943	9,848	1,814	11,662	4,652	16,167	20,819	6,839	18,488	25,327	43,992
1944	1,641	1,585	3,226	3,334	9,615	12,949	2,354	11,462	13,816	25,045
1945 (FIRST HALF)	0	809	809	0	1,933	1,933	195	4,751	4,946	~6,576

Source: Budge [2016]

The dire fuel situation of the Imperial Navy diverted strategy not just in the case of the Dutch East Indies. Japan needed to win big decisive battles instead of a prolonged war. The Battle of Leyte Gulf, off the Philippines in 1944 October is a prime example how the Japanese were handicapped repeatedly in the three day battle thanks to lacking oil supplies. The Imperial Navy lost three battleships, ten cruisers and thirteen destroyers. The fuel shortages forced the Japanese to use Kamikaze pilots because they only required half the fuel compared to a traditional aircraft due to the fact that there was no return trip. While the Japanese suffered from the shortages, the United States as a top oil producer used six times as much oil as the Japanese. Instead of admitting defeat to the more and more successful Americans, Japan made desperate efforts to produce fuel. Pine roots were dug up to produce crude oil substitute. It is a highly inefficient and very labour intensive process that could only produce 75,000 barrels per month by June 1945. In addition to that, it is very damaging for the environment. (e-education.psu.edu [2019])

Figure 30. **Neoclassical Realist Model of Japan's Entry into World War II.**



Source: Edition of the author based on the model developed by Ripsman, Taliaferro, Lobell, [2016] p. 34

The case of the Dutch East Indies shows us, how Japan modified its military campaign and gave major significance to the territory thanks to its large oil reserve and refinery capacities. Less than ten days after the attack on Pearl Harbor, the Japanese military was already on the island to capture the valuable facilities. The importance of refined oil products are national security concerns, especially for countries that have poor oil sources like Japan. These products are necessary for transportation, which is one of the key factors of war. Without the necessary means of reallocating resources, military equipment and personal, a war cannot be won.

It was especially true for the Pacific theatre of the Second World War. Far away territories had to be defended or attacked, and without oil, serious logistical challenges could cause problems for the military high command. The British did not defend the Dutch East Indies because of their logistical problems, and because their main concern was not Japan, but rather Nazi Germany which seemed to be the most powerful foe in the beginning of the 1940s. However, the Dutch and the British knew that the main value of the region was its richness in oil, so they tried to sabotage the Japanese efforts to use its capacities. The main goal was not to let Japan use the oil resources of the island, instead of holding the territory against the invaders. This shows that oil was more important than any other factor related to this territory during the war. Without this territory Japan could have been in even more trouble and lose the war sooner. This case is strongly backing *H2.* and *H3.* as well. *H2.* predicts that states divert significant attention to control over oil supplies when it has relatively low degree of accessibility. Japan's anticipatory strategies aligned with Figure 8. including annexing territory and producing oil substitutes. Japan's entire war effort, was influenced significantly by the lack of domestic oil production capabilities. In addition to that, *H3.* predicts that when a Great Power cannot maintain its access to oil supplies, which results in a diminished power projection capability, its relative power in the international system so severely changes that it can no longer be one.[47]

[47] Great Power status and the explanation on different tiers of Great Powers can be found on page 44.

12.2. Japan and the Oil Crisis of 1973

The Japanese economy experienced rapid development during the war years. Between 1937 and 1945, production indices showed tremendous increases for example: 252 percent in machinery, 70 percent in nonferrous metals, 46 percent in steel and almost a quarter: 24 percent in manufacturing.

After the war, the militarized economy had to be converted to peacetime activities. Fortunately, the Japanese economy was diverse and sophisticated enough to make this conversion relatively easily. For example in the automobile industry, out of the 11 major auto manufacturers in post-war Japan, 10 was operational during the war years. It was only Honda that is an entirely new product of the post-war period. Three major ones: Toyota, Nissan, and Isuzu were the primary producers of trucks for the military. It was thanks to a 1936 law that had driven Ford and General Motors out of the Japanese market. As we could see Japan foreshadowed the conflict with the United States and wanted to be self-sufficient in terms of military equipment producer. Other corporate giants gained comparable competitive advantage during the war years, and they brought their advantage to the coming years after 1945 as well. Whole sectors such as Normura Securities in bonds and stocks, Hitachi in electrical equipment manufacturing and Toshiba in electric goods were able to take off in the post-war period by building on advantages and fortunes made during the war. (Dower [1992] pp. 54-55).

After 1945, many of the wartime companies and much of the technology used before and during the war were converted to peaceful economic tools. Japanese private companies expanded quickly and ambitiously. They borrowed massive amounts of money from banks and took on large debts.

The Japanese Government advised the private companies to do mergers that make the more effective against the American “Detroit’s Big Three” which refers to General Motors, Ford and Chrysler. However, instead of doing that the private companies developed rapidly,

against the conservative advice of the government. Toyota, Nissan, Isuzu, Toyo Kogyo (Mazda), and Mitsubishi all decided to produce full lines of automobiles. These types of industries required a large amount of petroleum products so the coming oil crisis was especially threatening to the country. Many companies went against the intentions of the government. For example, a motorcycle company founded by Honda Soichiro defied bureaucratic warnings and entered the auto market in 1963 with great success. In 1953, Morita Akio and Ibuka Masaru struggled for months with reluctant state officials before winning permission to purchase a license to make transistors. Beginning with the radio in the 1950s, their infant company, Sony, soon emerged as the global leader in quality and innovation in consumer electronics goods. (Gordon [2003] pp. 248-49)

This shows that regardless of government efforts the economy of Japan was transformed to a capitalist one, which means that the foreign and trade policy of post-war Japan was no longer solely determined by the government. Previously as we could see during the war years, several companies were built up to match the requirement of the government. After the war, a great number of private companies achieved remarkable success thanks to their own efforts and capabilities to thrive on the market. The post-war Japan has never been able to extort its will on the private sector as much as before.

It is important in our case because in terms of securing oil resources the government played a much more supportive role than before. Prior to the war, Japan could reallocate the crucial resources to its most important companies, now these companies could make private contracts with suppliers. It has been also feasible because after the Second World War the colonial and Mandate System crumbled and as time went by slowly, but surely sovereign new states were born, which were eager to trade with the highest bidder. The colonial overlords could not divert trade as before. Moreover, as we could see in the case of the Dutch East Indies, the proximity of Japan to these resources meant that without the colonial rulers Japan could more easily secure oil supplies from these regions.

Nationalism and the desire to catch up with the West was the dominant way of thinking after the Second World War, but after the defeat, efforts were focused on economic and industrial

goals rather than on military achievements. Good example for this conversion is that machine gun factories after the war were converted to make sewing machines; optical weapons factories produced cameras and binoculars. (Pyle [1996] p. 242)

Japan after the Second World War became one of the most devastated countries on Earth. Its development took off largely because the United States realized that it needed a strong ally in the Pacific region and Mao's China and the Korean War made it necessary to handle Japan as an ally instead of a former enemy. Losing this country to the Eastern block or it joining the Non-Aligned Nation's movement would have seriously weakened the position of the United States in the Far Eastern and Pacific region.

In terms of oil dependency, the positions of post-war Japan have changed. The country was still in dire need of oil resources, because major oil reservoirs were not discovered on the Japanese islands. There was however a shift in the resources and supply security of the Japanese economy. The Western powers which still had influence in oil rich regions (regardless of decolonization tendencies) were now the allies of Japan, and the United States a former formidable foe, was a major supporter of Japan's development, especially after the Korean War broke out. Japan no longer needed to conquer territories or clash with the Western powers in order to secure its oil supplies. This meant that the foreign and trade policy of Japan could focus on other important things, such as the rebuilding the economy without worrying about supply shortages up until the 1970s when oil crises shook the world. This dependency however made impossible for Japan to regain its status as a tier 1 Grear Power. As *H3.* predicts *when Great Powers cannot maintain access to oil supplies in order to keep their power projection capabilities at a similar level as other Great Powers, they lose their status of being one.* In spite of the rapid economic development of Japan, it could not reach the status of a tier 1 Great Power, because it depended on another Great Power (the United States) to secure the oil supplies necessary for Japan.

The first oil crisis in 1973 was triggered by the war in the Middle East. Major oil producers in the region were fed up with the West that helped their enemy: Israel. Six of them (Saudi Arabia, Iraq, Iran, Kuwait, Abu Dhabi and Qatar) decided that in order to retaliate against the West and show power, they will raise the price of oil by 21% immediately. Furthermore,

the OPEC countries agreed to decrease production of oil by 5% every month for a certain amount of time. In addition to that, Libya, Saudi Arabia and other Gulf countries implemented an oil embargo against the United States. In light of the event, Exxon and Shell announced a 30% increase in their oil price thanks to the coming change in supply and demand, which policy was followed by the Majors (major oil producers) soon. In addition to that, the Arabian countries did not consider Japan as a neutral nation connected to their struggle, so they cut the supply of Arabia Oil Co. Ltd. (a significant supplier of Japan) by 10%. The Majors also decreased their export to Japan by 10%. (Yamakoshi [1986])

As the table below shows, Japan was significantly dependent on the oil from the Gulf region. The country was considered a friendly nation to the West and Israel, that is why the political measures from the Arabian countries were so severe.

Table 24. **Structure of Energy Dependence of Major Industrial Countries**

- 1978, % -

	Japan	West Germany	United Kingdom	France	Italy	Canada	USA	OECD
DEPENDENCE ON OIL FOR ENERGY	73.5	54.7	64.1	59.9	70.3	39.7	48.9	53.4
DEPENDENCE ON IMPORTS FOR OIL	99.8	96.6	43.4	99.0	98.5	12.9	45.7	65.9
DEPENDENCE ON THE MIDDLE EAST FOR OIL IMPORTS	78.5	48.9	80.6	76.9	68.5	44.7	38.5	68.6
DEPENDENCE ON THE MIDDLE EAST FOR ENERGY	57.6	25.8	16.5	45.6	47.3	2.3	18.6	24.1

Source: Economic Planning Agency [1980]

The Japanese foreign policy was in a dilemma. On the one hand, its relationship with the United States was one of the highest importance. On the other hand, the relations with the Arabian countries had to be restored in order to ease the pressure on the Japanese economy.

Several internal successful economic policy reforms were carried out thanks to the crisis, but carrying out external policies could not be missed in order to handle the crisis.

The Ministry of International Trade and Industry that was a very influential and successful governmental body analysed the situation. The country had to divert its foreign policy from fully supporting the United States by taking a more pro-Arab stance. The Majors would not back Japan and a more severe situation could occur if Japan continue to show its support towards Israel.

Then Japanese Prime Minister Tanaka met with U.S. Secretary of State Henry Kissinger to discuss the situation before Japan took any further steps. Kissinger could not promise to compensate the oil shortages of Japan, so the Japanese Government's hands were tied. In spite of the fact that Jewish-American businessmen might retaliate and view the stance of Japan unfriendly, the country had to loosen its ties to the United States by making a pro-Arab statement. It was estimated that the Japanese economic growth could decrease from 10.7% to below 5% if its oil supply would decrease by 5-6%. (Yamakoshi [1986])

As early as 22nd November 1973 the Japanese Government sought to stabilize the situation with the Arabian countries by issuing a statement where Japan expressed its intentions of reconsidering its policy towards Israel if it did not withdraw from territories occupied by the Jewish State since 1967. Furthermore, Japan reiterated that it supports the United Nations Security Council Resolution 242 which was accepted unanimously in 1967 regarding the situation in the Middle East, and was more favourable towards the Arab countries rather than to Israel. (Halloran [1973])

In addition to the statements by the Japanese government, Vice Prime Minister Miki was sent to Arabian countries to restore good relations, which resulted in recognizing Japan by the Oil Ministers Conference of OAPEC (United Arab Emirates, Saudi Arabia, Egypt, Kuwait, Qatar, Syria, Iran and Iraq) as a friendly nation. (Yamakoshi [1986])

This way Japan diverted its foreign policy in order to counter the embargo, which would have been devastating if it lasted for a longer period. Japan focused its economy and its diplomacy towards energy security, which I detail in the chapter below. However, with the fragile and

insufficient efforts to secure oil supplies, Japan was not able to reach the status of a tier 1 Great Power, further backing *H3.*

12.3. Contemporary Japanese Foreign Policy Challenges Connected to Oil

The geopolitical situation of Japan has not changed since the end of the Second World War. Its access to resources depends mainly on marine transportation. Therefore, freedom of navigation and overflight is a key issue for Japan. The most troublesome region that concerns the Japanese foreign policy connected to the security of sea-lanes is the South China Sea. (Ministry of Foreign Affairs of Japan [2017]) China's claims of sovereignty over the South China Sea concerns not only Japan, but Brunei, Indonesia, Malaysia, the Philippines, Taiwan and Vietnam. Japan could benefit from the sea's estimated 11 billion barrels of untapped oil and 190 cubic feet of natural gas, but Chinese attempts bring uncertainty and tension to the region. (Council on Foreign Relations [2019])

Japan can rely on the United States to counter the disturbance of open sea-lanes, however the issue of the South China Sea remains one of the focal points of the Japanese foreign policy in the coming decades which can cause disturbances in the oil supply of the country. Naval blockades, increased tensions and uncertainty could threaten oil tankers, which could increase the price of oil. This could pose a threat to the Japanese economy therefore the foreign policy of the country has to increase its efforts to keep the sea-lanes safe and open.

Another focal point of the Japanese foreign policy is the prolonged uncertainty of the Middle East. The region is an important energy supplier of the world, including Japan and the unstable governments with international terrorist organizations pose a potential threat to the energy security of the country. Japan made serious efforts to secure stable supply of resources and food. It hosted as the presidency of the G7 the Meeting of the Energy Charter Conference

in October 2016 (Ministry of Foreign Affairs of Japan [2017]) This shows how central the question of energy dependence is in the country.

Japan's oil import dependence stood at 99.7% and it was the fourth largest oil consumer in the world (with 4.037 million barrels per day) in 2016. (BP [2017]) The country's primary supplier remains the Middle East as in the past. Saudi Arabia and the United Arab Emirates supply more than half of its total energy imports alone, which explains the focus on the Middle East. (METI [2017])

The Ministry of Economy, Trade and Industry (METI) and the Ministry of Foreign Affairs (MOFA) have been trying to implement three types of policy measures in order to increase the oil security of the country since the 1960s:

1. Increase the self-development ratio (SDR) of oil, which is a ratio between total oil imports of Japan and total yearly oil production by Japanese companies. This effort mainly involves financial support for overseas explorations of Japanese companies.
2. Vertical and horizontal integration in the Japanese oil industry is encouraged to increase competitiveness and bargaining power.
3. Development of resource diplomacy aimed at enhancing economic interdependence between Japan and oil-producing countries especially with Middle Eastern countries. (Thorarinsson [2018] p. 5)

Table 25. **Self-Development Ratio of Oil Targets and Results**

TARGET SET	OIL SELF-DEVELOPMENT TARGET	TARGET DATE	RESULTS
1965	30% of total import of 881 million barrels/year	1985	10.7% 133 million barrels/year
1967	30% of total imports	1985	10.7%
1978	1.5 Mb/d	1990	0.45 Mb/d
1983	1.2 Mb/d	1995	0.69 Mb/d
1993	1.2 Mb/d	At the beginning of the 21st century	0.58 Mb/d
2000	Cancellation of numeric target		
2006	40% of oil imports	2030	
2008	40% of oil and gas imports	2030	27.4% in April 2006

Source: Thorarinsson [2018] p. 18

These countermeasures have been producing mixed results. The decades long programs show some improvement in different areas, but the dependency of Japan essentially remained the same. The SDR of oil increased from 10% in 1973 to 15% in 2008. In order to cover the poor numbers the METI publishes SDR of oil and natural gas jointly since 2009, but in the last decade only a slow improvement was carried out. The integration of the Japanese oil industry only dates back to the 1990s, but the upstream-downstream divide is still present. However, the number of downstream corporate groups decreased from 17 to 4 since the 1970s. The success of the resource diplomacy is even harder to assess. The ties between Japan and the United States, Saudi Arabia, Qatar and the United Arab Emirates is stronger than in the past thanks to the Japanese efforts. Saudi Arabia and the UAE supplies the vast majority of oil to Japan, therefore a closer relationship can be expected with these countries at the expense of other oil producers. (Thorarinsson [2018] p. 6)

12.4. Conclusion

The Japanese example clearly show how a resource poor country such as Japan had to modify its foreign policy decisions. Petroleum products and oil was an important part both for the wartime and peacetime economies. The case of the Dutch East Indies shows, how the Japanese government meant to attach the Dutch and nearby British colonies to its sphere of influence by economic means. It was faced serious opposition by the European colonial powers. That is the reason why within ten days after Japan openly entered the war, its invasion forces was already on the Island of Borneo to secure the region's rich oil supplies. The territory proved to be a very important supplier of Japan during the war. However, it could not provide enough material for Japan to match the capabilities of the United States.

After the defeat of Japan, its economy had to recover. It meant that Japanese firms enjoyed the advantages given by the Western block. The United States' interest was to see Japan thrive, but it could not shield the country from oil shortages in the event of the first oil crisis. The Japanese foreign policy had to distance itself from the United States regarding the issue of Israel in order to restore its ties to the most important oil-producing region of the world. Public statements and high-level visits were carried out by the Japanese government in order to earn the goodwill of the Middle Eastern oil producing countries, which would have certainly not happened if the region was not a major supplier of oil for Japan.

As the internal measures taken by the Japanese government (increased SDR, integration of the oil industry) show relatively weak results, the Japanese foreign policy had to introduce resource diplomacy as a way to effectively counter supply shortages. The relations of Japan with oil producing countries has been improving for decades. This shows how the foreign policy decisions of Japan was greatly influenced by oil in the 20th century. Energy diversification could only ease this pressure, but cannot eliminate it in the 21st century either. *H1.* and *H2*. hypotheses can only be assessed until the end of the Second World War, because Japan lost its status as a tier 1 Great Power due to the fact that it could not secure enough oil supplies for itself to fuel its war efforts as *H3.* predicts.

13. Russia[48]

The Russian Empire was known for its vast natural resources. The Soviet Union and later the Russian Federation did not change this perception in the 20th and 21st century. Russia has the largest reserves and it is the largest exporter of natural gas. (Overland [2016] pp. 115-130)

Besides natural gas, Russia has the second largest coal reserves, the eighth largest oil reserves and it is the largest producer of oil taking the second and first spot with Saudi Arabia. It produced over ten million barrels of oil per day in 2015. (Tully [2016]) Supporting the *H1*. Claiming that *every Great Power had access to the majority of the proved oil reserves since the Industrial Revolution.*

The country is responsible for 12 percent of global oil production. (BP.com [2021]) Russia is also the main transit country for the oil coming from Kazakhstan that makes it a very influential player when it comes to the question of oil.

The USSR and later the Russian Federation have been relying on oil and gas revenues to extend their influence abroad. Researching the characteristics of these fossil fuels on the foreign policy of the country helps us understand several underlying mechanisms that influence the foreign policy decision making of the country. *Oil and gas revenues play a highly influential part of Russian foreign policy, because it is one of the main source of soft power projection abroad.* After the beginning of the Ukrainian-Russian conflict in 2014 Russia needs to rely more and more on its fossil fuels to fight the Western sanctions against the country. How the USSR's and Russian oil industry operate gives us the insight why does the interdepence between Europe and Russia influence their relations. This foreign policy

[48] Earlier version of Chapter 13 was reviewed and accepted by the Köz-gazdaság - Review of Economic Theory and Policy Journal. It is expected to be published in Vol. 19 No. 4 (2024) issue: Mezei, A. [2024]: *Dependence on Oil and Gas Revenues as Foreign Policy Tools - The Case of Russia*.

focus counters the claim of *H2.* Which suggests that *the less oil resource one state has control over, the more its foreign policy is focused on it.* However, the oil resource rich Russia's foreign policy is centred around oil.

First, I show the petroleum industry of USSR. How it functioned and after its decline in the 1990s, how it was made more efficient. After the description of the industry, I show the relations between Russia and the EU, and how it influences their conduct. Using quantitative methods and process tracing, I show their interdepence and its effect on international relations.

The success of the modern petroleum industry started from the United States, but the Russian Empire was an important place for the early pioneers as well. The first oil well was drilled in the Russian Empire near Baku on the Absheron Peninsula (today Azerbaijan) in the middle of the 19th century. Foreign capital started to flow to the region to extract the "black gold". This rush made the Russian Empire one of the world's leading oil producer with a 30 percent market share in the early 20th century. The First World War and the 1917 revolution damaged the position of the country in the oil market, but the Soviet government managed to overcome the setback in a few years. (Egorov [2017])

Before the 1960s, the Caucasus and the Caspian region were the most important oil-producing regions in the Soviet Union. Hitler knew this fact that is why the Operation Barbarossa (the plan of attacking the Soviet Union) included plans to conquer this region. (Taylor [2011])

The Soviet Union and its allies defeated Nazi Germany in the Second World War. The vast resources of the Red Army proved to be an incredibly important support in order to carry out this tremendous task. Both the material resources such as oil and the sheer amount of people that served in the Red Army helped the Soviet Union to become one of the tier 1 Great Powers after the war.

The oil wealth of the Soviet Union strengthened after the war by new discoveries in the Volga and Urals region that produced forty-five percent of the total oil production in the country.

The 1960s brought more exploration, and huge territories of Western Siberia proved to be a "black gold mine" for the country with its vast oil reserves. (Egorov [2017])

The economy of the USSR and the Russian Federation has been highly dependent on the oil wealth. The power of Russian Federation is in correlation with the natural gas and oil market. The state tries to diversify its economy, but the oil business is lucrative and Russia has large amount of reserves.

Figure 31. **Russia Oil Map**

Source: Gordon, Sautin [2013]

13.1. Russian Oil Production and Its Problems

There are characteristics of the Russian oil production that are important to emphasize. The country has always been lagging behind the West in terms of technological advancement. It is no wonder that the Rothschild family and the Nobels were the ones who invested in the oil extraction early on. They were foreign investors and not private domestic actors or state owned ones. Due to the communist ideology and the animosity between the East and the West technological cooperation was hindered during the 20th century. The economic hardships of the country in the 1980s and 1990s were especially devastating for the country's oil infrastructure. The reasons for the lack of maintenance were the relatively high oil prices (that made innovations unnecessary for maintaining profit) and the inability of the state to invest in them. The Russian government relied on privatization in the 1990s to bring life to the oil industry and to carry out necessary technological innovations, just as they did in the late 19th and early 20th century.

Problems with oil production in the USSR and the Russian Federation:

- Higher production costs compared to competitors like Saudi Arabia. In 2001, Russian production was $10.30 per barrel compared to $5.40 in Saudi Arabia. The cost difference explained by lack of innovation and relying on outdated equipment.
- Higher transportation cost thanks to the huge distances from Siberia to the oil importer countries.
- Subsidized domestic prices. In order to please the domestic population, and lower the cost of living the government subsidizes domestic prices to be lower than the actual market price.
- Badly managed production capabilities: oil gluts, overproduction of wells, excess refining capacity. The USSR's oil infrastructure has been maintained badly due to sufficient oil supplies. Domestic producers did not worry about shortages therefore forgone needed innovation and maintenance of oil production equipment.

- Oil transport infrastructure is not up to date that hinders the efficiency of both state-owned and private oil production. The lack of reliable market conditions dissuade investors from updating infrastructure since these investments only useful in the long run. State-owned firms have corrupt leadership that waste funds.
- Privately owned companies are more productive. The three largest private company increased production by 90 percent between 1998 and 2003 while state-owned ones barely increased theirs due to corruption and wasteful spending.
- Wasted years in the 1980s and 1990s: deteriorating infrastructure without maintenance and investments, inefficiencies related to barter with Eastern bloc countries, restrictive bureaucracy and unclear jurisdictions, high export taxes on the oil. (Hays [2008])

These characteristics show that Russia has a significant say in the oil market, but it has its own problems. Russia is not a member of OPEC despite its significant position. The Organization of the Petroleum Exporting Countries was established to cooperate in part against the rampant increase in Soviet oil exports in the 1950s and 1960s. (Egorov [2017])

Russia and the OPEC work closer together and Riyadh and Moscow considering a 10-20 year agreement to keep oil prices in check. Since they are the among the most important oil exporter countries, their alliance can seriously affect the oil market and the world. (Raval [2018]) In order to achieve a more active foreign policy the role of oil is important in Saudi Arabia. The Saudi leadership made several changes such as structural reforms in the bureaucracy and in the oil industry. Oil is used to fuel the economy and to support building up different sectors as well. A more active foreign policy and a capital intensive economic development program left no other choice for the Saudis than to increase oil production from 12.5 million barrels per day by another million at least in the second half of the 2010's, before the Coronavirus pandemic. Production adjustments were carried out to stabilize the oil market and be the "swing producer" in the past. Now the internal reforms and the active foreign policy demands so much oil revenues from the kingdom that oil fuels the country. The Saudi Public Investment Fund (PIF) was set up in 1971 to provide financial support for projects with strategic significance. The PIF and other means of revenues cannot provide

enough resources for the kingdom to achieve its foreign policy goals. Oil and foreign policy is now officially combined in Saudi Arabia to shape the region. (Obaid [2016])

Riyadh and Moscow have been coordinating in the OPEC+ framework to keep oil price from falling too low. This pragmatic relationship is centred around oil production measures such as cooperating in reducing production by 1 million bpd by Saudi Arabia and 500,000 bpd by Russia at the end of 2023. (Ali [2024])

Russia's strategic priorities in the Middle East before the War in Ukraine could be separated into four groups:

- Cooperation with OPEC and its most important member Saudi Arabia. OPEC+ member status and pragmatic cooperation between other major oil producers and Russia ensures mutually beneficial market influence. (Reuters [2022])
- Several Arab countries play a small, but fairly steadily growing export market for Russian agricultural-, military-industrial-, petrochemical products and machinery export. Export diversification efforts by Russia play an important role in time of military conflict with Ukraine to reduce the economic dependency on Western countries. (Shkvarya [2023])
- Active political dialogue with the GCC helps Russia project soft power abroad, and balance efforts to reduce its relative (soft) power.
- Security concerns compels Russia to influence the elites of the GCC to provide support to state-controlled Islamic circles in Russia. Strengthening relations with Russia's Muslim community and Muslim countries aims to reduce the possibility to Islamist terror to occur with financial support from abroad. (Bouche [2023]; Kozhanov [2024])

13.2. Soviet Union and the Oil Crises

The case of the Soviet Union and the 1973 oil crisis is important to study in order to show the effects of oil. The Soviet Union was a planned economy during the Cold War with vast amount of resources and military might in order to exert influence even in faraway regions.

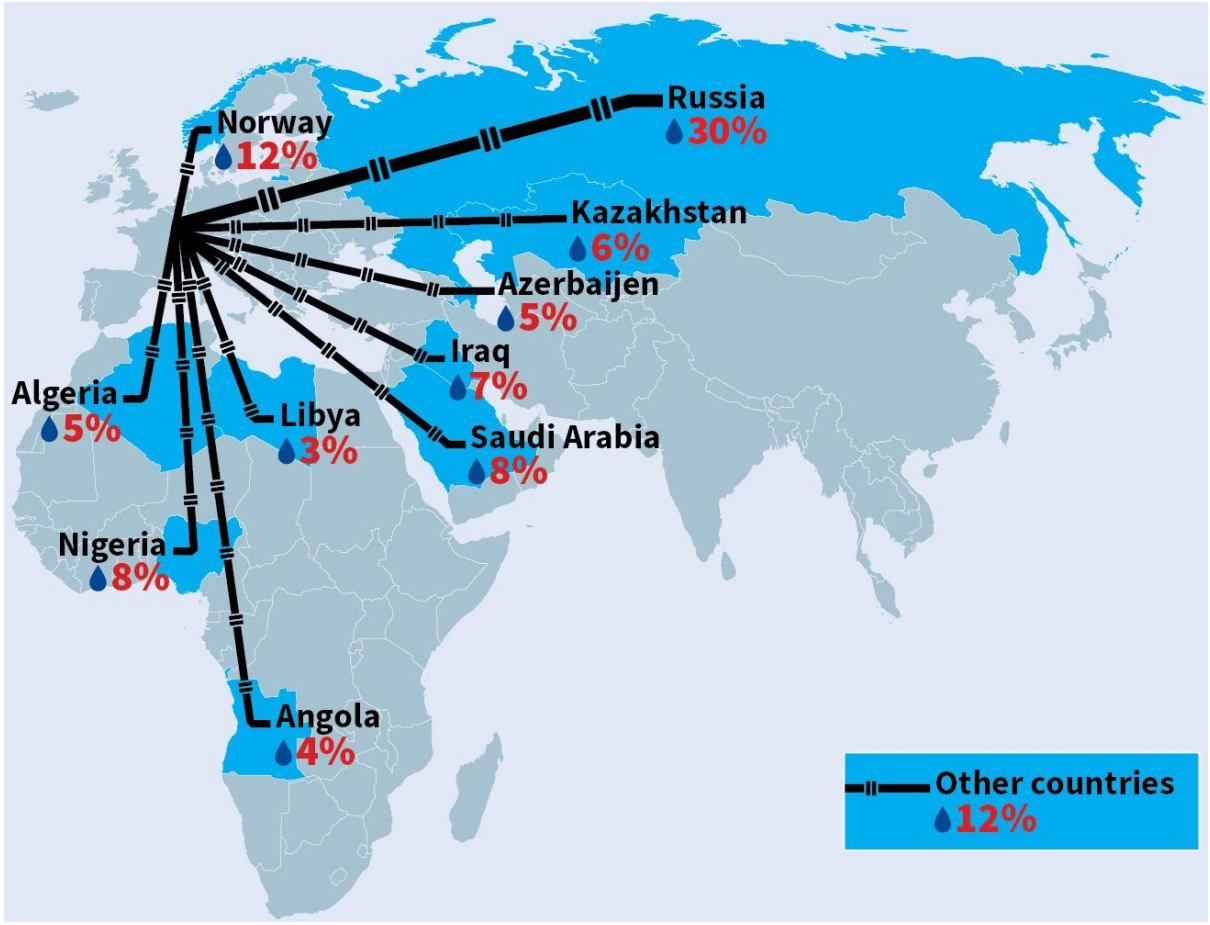
The USSR was in a better position than the United States concerning the Arab countries. On the one hand, the Soviet Union was seen as an enemy of the former imperialist Western countries that colonized major parts of the world and the Middle East as well. On the other hand, it did not support Israel as much as the United States. Furthermore, it delivered a lot of arms and equipment to the Arab states that was crucial to their fight against the Jewish state. The Soviet Union even encouraged the Arab oil embargos of 1956, 1967 and 1973-1974 to show support and to increase the price of oil. The Soviet Union was a major producer of petroleum products and it did not participate in the embargos so the country enjoyed the positive short-term outcome of the increased oil prices. In addition to the increased oil prices, the Soviet Union could strengthen its position in the Middle East. During the Suez Canal Crisis, the Soviets got a more favourable negotiation position for their talks with France about increasing oil deliveries. (Klinghoffer [1976])

Although, the Soviet Union was in a more favourable position compared to Western Europe during the time of the oil crisis it could not take full advantage of it. First, the Soviet Union had to supply the Eastern European countries with its own oil in order to counter any negative effects of the Arab oil embargo. The Eastern bloc experienced less problems than Western Europe thanks to the backing of the USSR. Second, the Soviet Union was already a supplier to most of the Western European countries and managed to improve its positions with them. Even if the Soviet Union did not increase its delivery to Western European countries and it remained on the 1973 level, which was 870,000 barrel per day on average, it could increase its earnings. The oil embargo of the Arab States increased the price of oil so the Soviet Union could increase its hard currency earning (with the same level of oil exports) from $1.2 billion in 1973 to $3 billion in 1974. (CIA [1974])

The analysis of the CIA shows that the Soviet Union could go through the oil price shocks relatively unharmed. The Western world had to face the problem of inefficiency and their wasteful management of crucial materials such as oil. The crisis of 1973, and 1979 showed how much the Western world depends on oil. Even the United States could not cover its domestic consumption without Middle Eastern oil. The constant increase of demand for oil and the sudden decrease in supply (thanks to the oil embargos) produced such price shocks that even the average citizen of a developed country could feel immensely. The USSR increased its oil exports to the West, but the percentage of these exports varied from year to year. The hard currency earnings from these exports increased the soft power of the USSR. It sent oil at subsidized prices to Cuba, Vietnam and sent oil as economic assistance to Nicaragua, Mozambique, Afghanistan, Ethiopia and South Yemen. Half of the USSR's hard currency earnings came from oil exports by the mid-1970s. (Painter [2014] p. 194) These foreign policy acts counter *H2.* further, because the Soviet Union and later Russia centres its foreign policy around oil. The situation has not changed significantly since then. Russia is responsible for the third of oil imported by European countries before the war in Ukraine.[49]

[49] The dissertation's scope does not include the effects of the Coronavirus pandemic, and the Russian-Ukrainian war.

Figure 32. **The EU's Main Oil Suppliers**



Source: Cazan [2016]

The Western world tried to mitigate a coming potential next oil crisis by investing in different parts of the economy. Fuel efficiency for cars, renewable resources for energy production and so on. The Soviet Union had vast amounts of reserves, it could supply its own country and the Eastern European satellite states easily, and it could even export its products to the Western countries. The need for innovation in the planned economy of the USSR did not show until the late 1980s and 1990s. (Hubbertpeak.com [2018])

13.3. The Fall of the Soviet Union and Oil

There are numerous theories why did the Soviet Union disappeared from the world stage. One theory suggests that the Soviet Union could not keep up with the Western military build-ups. The Soviet Union spent more and more for its military to keep up with the West and necessary investments were diverted from the economy to the defence industry that led to an economic decline and to the fall of the planned economy and the USSR. (Brown [1992])

The mainstream economic explanation shows how the Soviet economy's decline led to the fall of the "empire".

- The planned economy is relatively more inefficient than the market economy. The process of extensive growth can explain the initial high growth rates in the Eastern bloc. These initially agrarian economies became industrialized ones. During the process, spectacular growth rates can be examined. The planned economy was weak at innovation so intensive growth could not replace the numbers extensive growth could produce beforehand. (Ellman [1986])
- The weak innovative capability of the Soviet Union led to stagnation. Several reforms were carried out by the Soviets to counter stagnation including relatively radical ones such as perestroika, glasnost and greater economic freedom by Gorbachev (Hubbertpeak.com [2018])
- The planned economy could not coexist with the reforms. Selective reforms such as freer wages, but regulated prices led to greater inefficiencies (Osband [1992])
- The stagnation, the inefficiencies created impatience. The greater political freedom changed the society. The people started to express their dissatisfaction with the system more boldly (Dallin [1992])

The greater political freedom combined with the inability of the planned economy to bring sufficient growth resulted in the collapse of the Soviet Union and the Eastern bloc. Seemingly, oil had nothing to do with the fall of the USSR. However, it is important to emphasize that the Soviet Union could maintain growth levels that ensured its survival for a long time with

industrialization and with its vast oil wealth as well. The natural resources of the USSR helped it to exert influence over Eastern Europe and supported its efforts of maintaining the status of a superpower for decades. Oil prices affect economic growth and its volatility can affect growth as well. Oil as a major part of the economy of the Soviet Union influenced the growth rates. When the production declines, problems starting to appear at an alarming rate. (Boyd, Caporale [1996])

Russian oil production experienced a stagnation and a decline in the 1980s. The Eastern bloc needed to invest in new technologies in order to counter the loss of oil production. The financial support for the innovations could not come elsewhere, just from price increases of oil. The command economy set the price of oil way below the market price in order to exert political influence abroad and to silence unrest inside the country. (Balabanov, Deitz [1991])

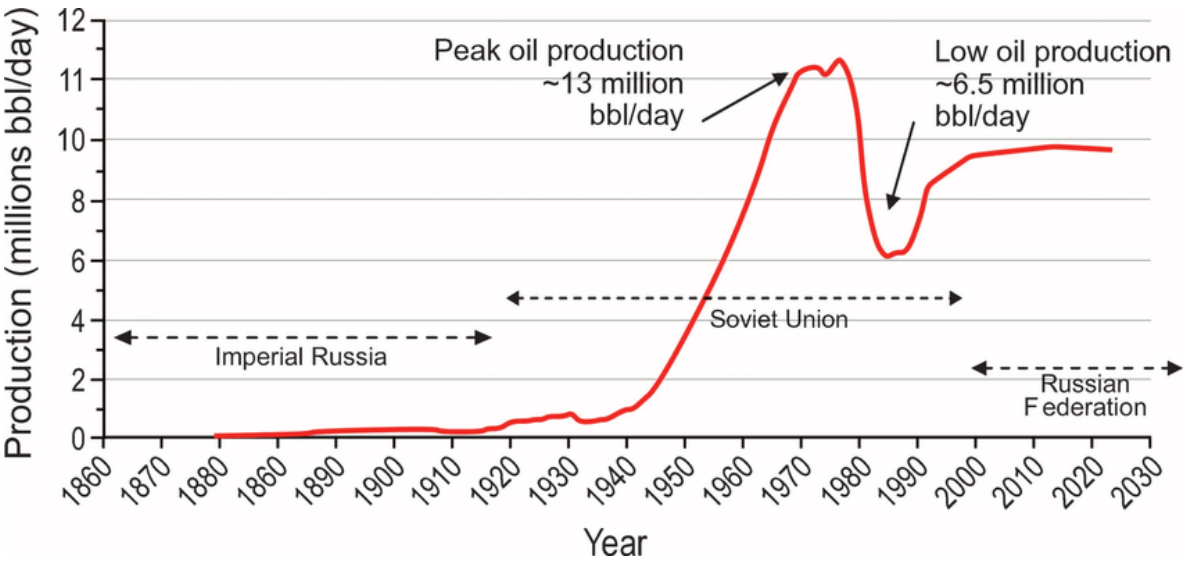
Until the Soviet production outpaced the internal consumption, the Soviet economy was more stable. Soviet consumption statistics are not accurate, because the command economy wanted to show higher growth in the economy than what happened in reality. The estimates of the CIA show that internal Soviet oil consumption increased roughly 7% per year on average from 1960 to 1975. The oil production increased by 8% at the same time. (CIA [1985])

In the period of 1960 and 1975, the Soviet Union experienced an average 6% economic growth per year. Compared to this period the next five years from 1975 to 1980, when the Soviet Union only increased its domestic oil consumption by 4 percent per year. If the production rate would have remained 8%, the Soviet Union could have sold its surplus oil and from the revenues, it could have carried out economic reforms that would have increased the economic growth rate of the country. The oil production decreased by a lot during this period. Between 1975 and 1980 the production only increased by an average 3.5% per year (instead of the previous 8%). The economic growth rate fell tremendously to 2.6%. The USSR managed to increase oil consumption from 1980 to 1985, but its production declined further. This was devastating to the country's economy that led to essentially stagnation with an approximate 1.8% yearly economic growth. (CIA Directorate of Intelligence [1988])

In order to explain the role of oil we have to look at the timeline of events. If an economic crisis induced the fall of oil consumption then the oil industry played little role of influencing the Soviet Union and its foreign policy. The economic decline alone would have meant lower oil consumption, but not necessary lower production since the Soviet Union supplied many countries with oil and the loss of internal demand for oil could have been replaced by demand from abroad.

In the case of the USSR, oil production declined first, that induced an economic crisis, which led to domestic decline in consumption. This economic crisis paired with political reforms led to the fall of the Eastern bloc. (Hubbertpeak.com [2018])

Figure 33. **Russian Conventional Oil Production**



Source: Kashirtsev, Hein [2013]

13.4. Russia and the Gas Industry

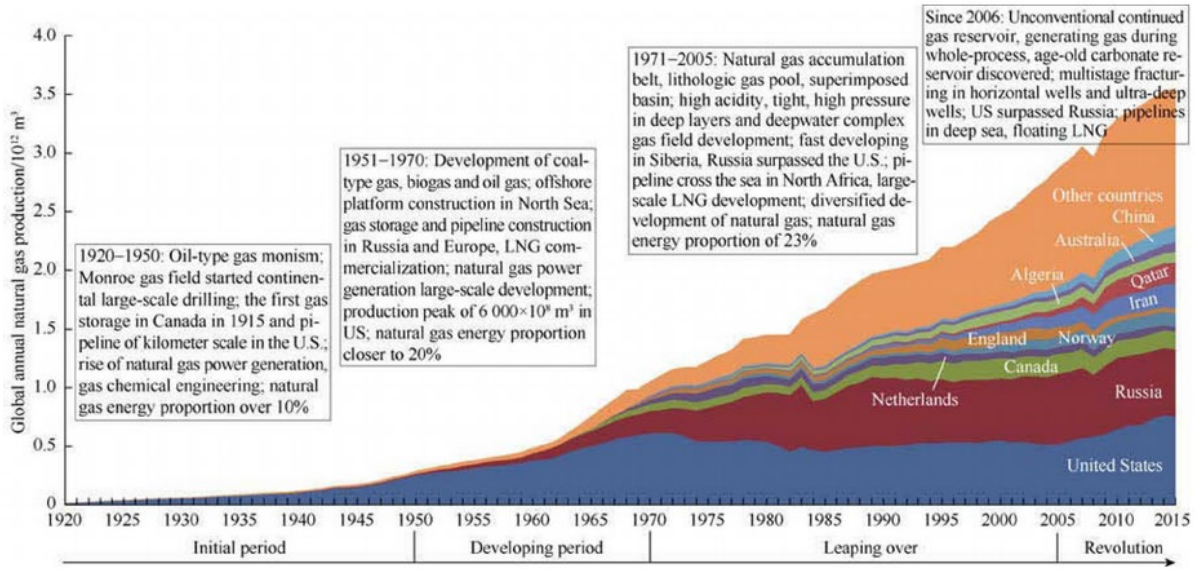
The oil and gas industry of the USSR was placed on a fast development trajectory in the 1950s. Natural gas production was little compared to oil production until the 1950s. However,

capital investments increased from the second half of the 1950s in the gas industry to match the demand for natural gas. (Lydolph, Shabad [1960]) Since, the investments in both the gas and oil sector, the country has been relying on fossil fuel revenues in several ways. The USSR used discounted prices and aid to its allies as a means to exercise control, while used the revenues and foreign hard currencies to maintain its government expenditures.

The Russian Federation's budget system is highly dependent on these revenues as well. They include returns on mineral extraction tax and export customs duties. The oil and gas revenues serve as a fund for budget stabilization since 2004. In 2007, this fund was split into the Reserve and the National Welfare Fund that serves as a safety net when oil and gas revenues would affect the budget negatively. (Sabitova, Shavaleyeva [2015])

The development of the modern natural gas industry indicates that the USSR (later Russia) has been a major gas supplier since the mid-1960s. Before the widespread usage of unconventional methods to extract natural gas (and oil) such as fracking, Russia was the leading oil supplier of the world by the turn of the century. The increased relevance of fracking and LNG shipments coupled with Russia's war in Ukraine has been decreasing the power projection capabilities of Russia. These factors drive consumers mainly from the EU to loosen economic ties with Russia, diversify their energy suppliers, therefore mitigating the influence of Russia on European and world politics.

Figure 34. **Development of Natural Gas Modern Industry**



Source: Zou et al. [2018] p. 606

13.5. Russia, EU, Oil and Gas in the 21st Century

The fall of the Soviet Union and the relatively cheap oil prices of the 1990s made Russia a dormant power before the 21st century. Military interventions and coercion by force has faded in recent decades compared to the time of colonization. Economic influence is the most effective way of persuading countries. After the collapse of the Soviet Union, the Kremlin's grip on the energy sector loosened and usage of the resource weapon either as a carrot or as a stick lessened. Up until the inauguration of President Putin, the energy resources were under looser control than before 1990. Putin directed Russian energy policy toward closer cooperation with major consumers to help Russia regain its strategic significance on the world stage. The 4 main pillar of Russian energy policy after the Putin became president are:

1. National energy sector as a means of geopolitical lever in international relations.

2. New legal structure for the energy sector that supports the Kremlin's tight control over the sector.
3. Gazprom, Rosneft and major energy companies should be under a stricter state control than before.
4. State control over export pipeline infrastructure both in the oil and gas sector. (Bochkarev [2006])

The energy strategy of Russia wants to dominate world energy markets and provide resources for the domestic economy for economic development. Exporting and transporting energy resources from Russia and from Central Asia to Europe, promotion of exploration and Russian owned fossil fuel production abroad are the main pillars of the energy strategy. In addition to these goals, the increased presence of Russian companies in the upstream and downstream sector in foreign markets also contribute to achieve dominance of Russian significance in the energy market. (Bochkarev [2006] p. 8) The foreign expansion of Russian companies has been radically hindered by the Ukrainian conflict, and the dominance of Russian energy has been more and more actively encountered by many Western countries.

The NATO and the European Union with the rise of China and other major economic and military powers made the former superpower Russia to use its oil and gas supplies as foreign policy tools. *H3.* suggests that *Great Powers try to maintain and/or improve their place in the international system through balancing strategies. When Great Powers cannot maintain access to oil supplies in order to keep their power projection capabilities at a similar level as other Great Powers, they lose their status of being one.* Even though Russia could maintain its high level of access to oil sources, it lost its status as a tier 1 Great Power. Access to oil supplies is a necessary condition for being a tier 1 Great Power, but alone an insufficient one. That is why several oil rich countries cannot reach the rank of a tier 1 Great Power.[50]

Before the decline in oil production, the Soviet Union tried to make Eastern and Western Europe highly dependent on Russian energy. The West faced with this problem in the 1970s

[50] More about Great Powers in Chapter 5.

and made them take a conscious effort to counter the influence of the Soviet energy on their foreign and domestic politics. (Klinghoffer [1977])

First, the decline of oil production, the collapse of the Soviet Union and then the privatization of many oil companies eased the influence of the Kremlin on the Western countries from the 1980s. However, the rise of Vladimir Putin meant a more active foreign policy with "petro-power" in Russia. (Newnham [2011]) That is why neoclassical realism is used, because unit level factors such as leader perception is important in foreign policy decision making, and Putin's perceptions form the foreign and energy policy of Russia.

The reasons why states like Russia choose to use their economic and commercial relationships as foreign policy tools are listed below:

- Make promises or threaten economically a state in a subordinate position to take advantage of them.
- Deprive rival states from rich natural resources by controlling the access to them. In the case of Russia, controlling the oil and gas industry by the state serves this goal.
- Economic satellites and dependent states create a strong sphere of influence. (Arı [2011] pp. 411-417)

Other states that have rich deposits of oil and gas resources also use their position to exert influence. However, other resource rich states such as Norway do not have equal amount of weight in global politics therefore their soft power is much lower than Russia's. There are regional powers such as Venezuela or Iran that are major producers. In spite of that, their strong neighbours that are also rich in these resources (USA, Iraq, and Saudi Arabia) can balance the efforts of the regional powers to be as substantial players on the world stage as Russia. Russia's size, location and military might support its soft power to be reckoned with. However, in the 21st century its power projection capabilities are below than the United States, therefore it is not a tier 1 Great Power. This classification of Russia further enhanced by the prolonged conflict with Ukraine.

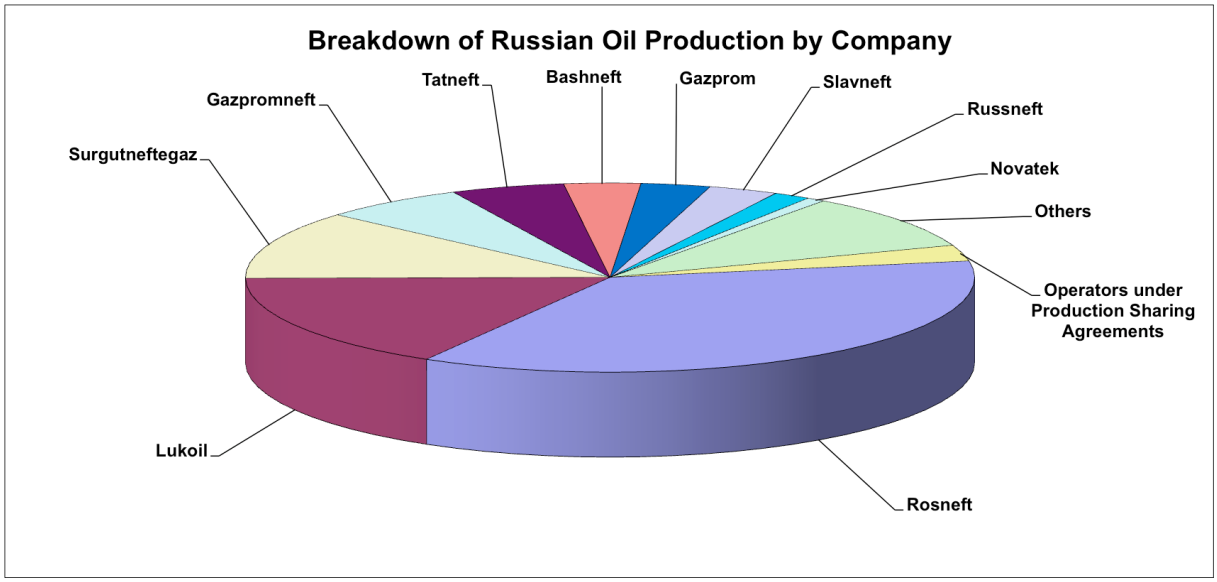
Several favourable events occurred at the time when Vladimir Putin became the leader of Russia. The world's market demand for fossil fuels such as oil and natural gas increased

between 2000 and 2008. The formerly privatized oil industry meant less influence so President Putin started to tighten control over the gas and oil sector. When oil prices were favourable in the early 2000s, Russia nationalized major parts of the oil sector. The closer control over this sector meant that foreign companies could not benefit from Russian oil wealth directly and the Russian state can use oil as a foreign policy tool more freely. Russia pressured Royal Dutch Shell to hand over control over major projects in Russia to publicly traded Russian company Gazprom. A formerly private company Yukos's founder was jailed and the company was absorbed into state-owned Rosneft. (Farchy [2015]) Furthermore, Rosneft bought TNK-BP a major oil-producing firm that produced 1.74 million barrels per day in Russia and Ukraine in 2010. (Katusa [2012])

"According to Russia's Central Energy Dispatch, 526.7 mn tons of oil including gas condensates were extracted in 2014[51]*. State giant Rosneft tops the list of producers (190.1 mn tons) ahead of Lukoil (86.6), Surgutneftegaz (61.4), Gazpromneft (33.6), Tatneft (26.5), Bashneft (17.9), Gazprom (16.2), Slavneft (16.2), Russneft (8.6), NOVATEK (4.3). The remaining 50 mn tons of crude oil were produced by other minor companies and firms, working under PSA* (Neftianka.com [2015])."

[51] The sanctions distorted the development of the Russian economy since the start of the Ukrainian conflict. The year 2014 was used to show the breakdown of the Russian oil industry prior to the sanctions.

Figure 35. **Breakdown of Russian Oil Production by Company**[51]



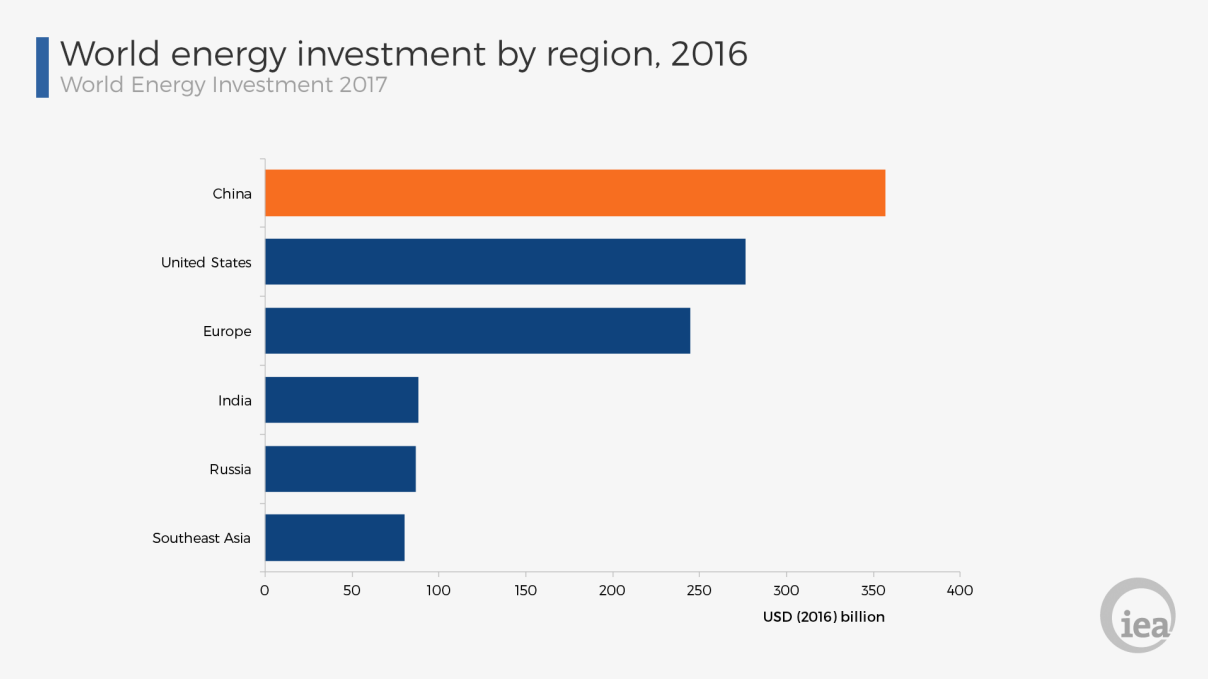
Source: Netianka.com [2015]

In addition to these events, Russia increased its grip on the pipeline systems inside and outside the country that delivered oil and gas: two important resources. Another favourable trend helped Russia regain its power: the diminishing new resources; therefore, the limited global supplies forced the countries to deal with the Russian giant. These resources could be used by Russia to reward its allies and essentially punish its adversaries. The countries friendly to Moscow receive discounted gas and oil such as Belarus. Others can get these commodities for the world market price. (Newnham [2011])

Oil is crucial for the modern economies therefore; the power of the Kremlin in determining the price of this commodity on political grounds can be very influential. However, it seems that Russia cannot invest as much as its competitors in the energy field. As the oil price declined in the recent years, Russia started to play with the thought of privatization once again. The armed conflicts of Russia in Ukraine, and Syria require tremendous amounts of money and it could have been financed by the privatization of certain oil companies. The privatization would mean investments and innovation in the sector, but the tight control is an incentive in the eyes of the Kremlin to keep foreigners out of the sector. (Hille–Foy [2017])

Moreover, for now, foreign sanctions make investments in Russia undesirable. These sanctions were mainly imposed by Western nations. Sanctions included suspension of trade and investment talks, military-to-military cooperation, visa restrictions, asset freezes, ban on the issuance of export licenses for defence products or services to Russia, suspension for funding projects, restrictions on the export of various oil and gas technologies to Russia etc. (Gutterman, Grojec [2018]) These sanctions has been hindering the output, efficiency and development of the Russian economy. Without FDI and Western technology, the Russian economy inevitably has a hard time supporting Russian military operations abroad.

Figure 36. **World Energy Investment by Region**[52]



Source: International Energy Agency [2017]

H2. is lacking explanatory power by the case of Russia. It controls a vast amount of fossil fuel wealth and it's foreign policy is focused on it a lot. Direct control of this resource is easy

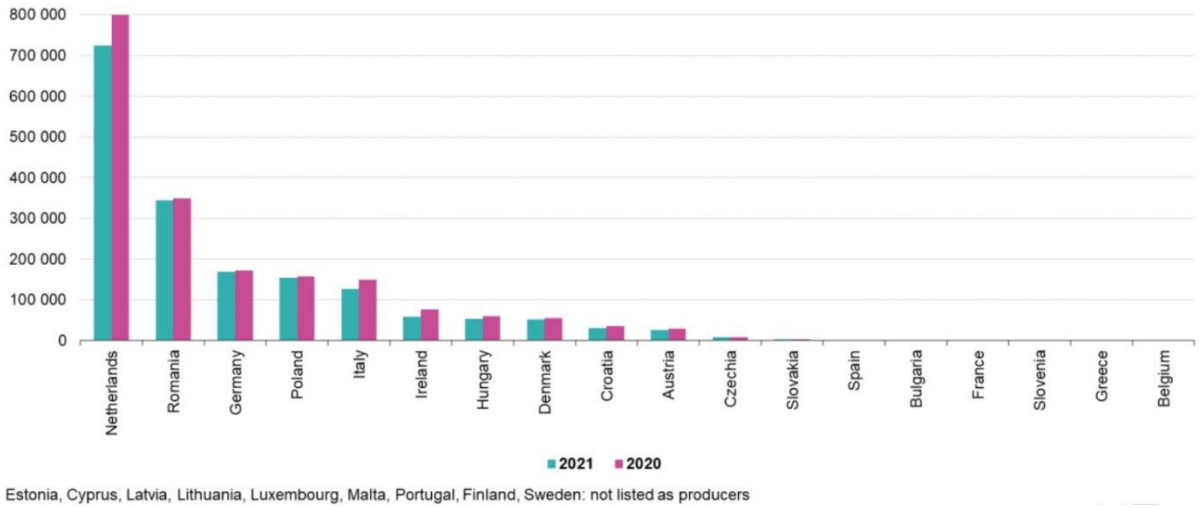
[52] The sanctions and pandemic distorted the development of the Russian economy since the start of the Coronavirus pandemic and the Ukrainian conflict. Prior date is shown to clear data from distortion.

for the Russian state since it has its oil wealth within its borders, but it has also built relationships with several oil producers and became the member of OPEC+. It has recently cultivated a closer relationship with Saudi Arabia in order to increase its influence on the price of oil. The first half of *H3.* is proven by the behaviour of Russia since it is trying to maintain and improve its place in the international system through balancing other actors such as the United States, by involving itself in Ukraine, Syria and through a Russian state-funded but private military company the Wagner Group in Africa. Russia is actively pursuing strategies to maintain its grip on the oil and gas market to keep its relative power at a level worthy of a Great Power, but its actions do not meet the criteria of a tier 1 Great Power. In the next chapter I show how the European Union countering Russian measures of increasing is power and influence through fossil fuels.

13.5.1. Natural Gas: Southern Gas Corridor, Mediterranean Hub and LNG Terminals

The question of energy security for the European Union has been in the centre of attention for quite some time. The non-renewable energy sources like oil, gas (and coal) are rare to find within the territory of the European Union so it needs to import these items. These fossil fuels account for around three quarters of the energy consumption in the EU. They generate heat and electricity that power vehicles and they are necessary for certain industrial processes. (European Commission [2017]a.) The main natural gas producer of the EU is the Netherlands. All major natural gas producer in the EU experiencing a slow decline in their production capability due to decreasing yields of their fields.

Figure 37. **Primary Production of Natural Gas, By Producing Country 2020-2021** (Terajoules (Gross Calorific Value))



Source: Eurostat [2022]

In order to ensure that oil and gas could get into the EU efficiently the EU tries to diversify its supply routes. The EU has tried to form a common energy policy in order to strengthen energy security. Investments in infrastructure, building cross-border connections the EU tries to combat the dependence of EU member states on one gas supplier. The growing energy demand coupled with diminishing production makes these measures relatively weak. The EU's preparedness and resilience to gas supply disruption is enhanced with an early warning system and an advisory group: the Gas Coordination Group, which includes experts from the Commission, leading stakeholders and the member states' authorities to assess supply security issues. (European Commission [2022]) Unfortunately, there are insufficient number of pipelines that transport these important fossil fuels. This is the case especially in the Central and Southern European regions where a single supplier: Russia is responsible for most of the supply alone. In order to ease the dependence of these countries the EU would like to bring gas from the Caspian Basin, Central Asia, the Middle East and the Eastern Mediterranean Basin. For this route, the planned Southern Gas Corridor can be the solution.

According to the European Commission, the Southern Gas Corridor that opened in 2020 could bring approximately 10 billion cubic meters (bcm) of gas annually. However, the EU

would like to increase this amount tenfold to 80-100 bcm of gas per year in the future. (European Commission [2017]b.)

Although, this plan seems to be a standard process (there were numerous pipelines built in the past), it was a very complex task. The Southern Gas Corridor is stretching over 3,500 kilometres, crossing seven countries and involving a high number of energy companies. The total investment cost is approximately $40 billion.

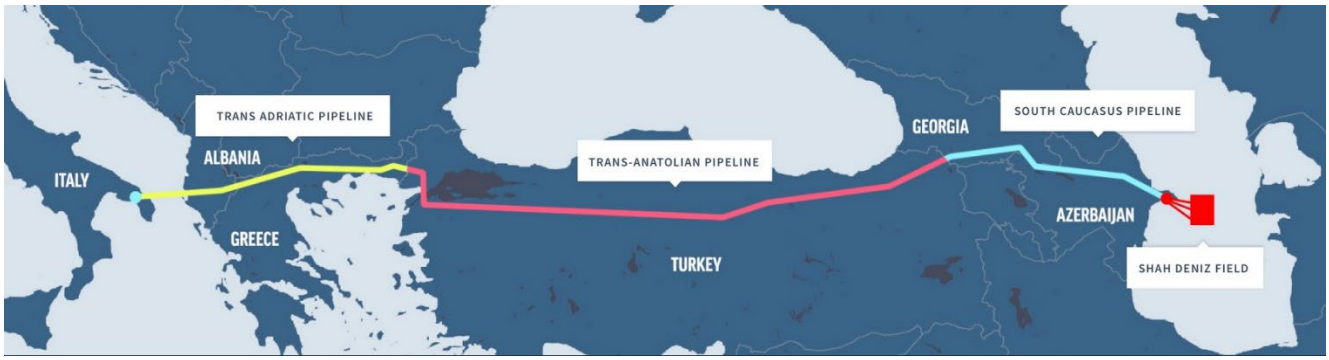
There are several seemingly independent energy projects connected to the pipeline such as:

- The Shah Deniz 2, which means drilling wells and producing gas offshore in the Caspian see
- Development and expansion of the natural gas processing plant on the Caspian Sea coast near Azerbaijan at the Sangachal Terminal
- Three pipeline projects in six different countries: Azerbaijan, Georgia, Turkey, Greece, Albania, Italy
- Italian network expansion

Furthermore, there can be several minor projects to connect the gas networks in Southern Eastern Central and Western Europe. (Trans Adriatic Pipeline [2017])

Carrying out this project was very troubling if we take a look at the complexity of the tasks. In some key parts of the pipeline, there were a few obstacles. The relationship between Turkey and the EU has not been the smoothest in the recent years. Furthermore, there were mixed reactions from the public connected to the Southern Gas Corridor. For example in Italy, environmentalists protested the pipeline in early 2017. (Damiani–Navach [2017]) In addition to the public resentment in Italy, more than 25 NGOs have also written a letter to the European Investment Bank Board of Directors asking them to stop funding the Trans Anatolian Pipeline in Azerbaijan (which is a part of the Southern Gas Corridor) due to human rights violations. (Counter-Balance.org [2017])

Figure 38. **Completed Southern Gas Corridor**



Source: Southern Gas Corridor [2022]

Russia has a lot of say in the Southern Gas Corridor regardless if it is on its territory or not. The Russian Federation exerts its influence to the Caspian Region and countries like Azerbaijan and Georgia has to take into account what their close neighbour says.

In addition to the Southern Gas Corridor, the EU tries to diversify its energy suppliers in the Mediterranean region. Potential North African and Eastern Mediterranean partners are needed to be involved in a dialogue between the EU and energy suppliers. There are numerous countries like Algeria, where a huge potential is in the conventional and unconventional gas resources. In addition to Algeria, there are untapped gas resources throughout the East Mediterranean region. This region is needed to be developed with new infrastructure in order to become a key gas supplier for the European Union. (European Commission [2017]b.)

The problem with this region is the same as was mentioned connected to the Southern Gas Corridor (SDC). The political climate of some of these countries can be volatile, and a major political turmoil can endanger the huge investments like pipelines and gas infrastructure. In the case of Algeria for example, the country has undergone several periods of instability and crisis in the past 70 years. (Serrano [2016])

The EU has to take into account that these politically instable governments may not deliver the promised developments in time or at all. The EU has a long history of dealing with gas pipeline problems. The idea of diversification by introducing Central Asian gas to Europe

started several pipeline projects to compete. The main contestant of the SDC was the Nabucco pipeline. Instead of going through Greece and Italy, the Nabucco pipeline would have used the route of Turkey-Bulgaria-Romania-Hungary-Austria to reach the EU. This megaproject had Austria's OMV company as a major backer allying with Central and Eastern European countries to bring Azerbaijani gas to Europe. OMV had to compete with BP and Statoil. Russia's proposal to bring gas on a southern route via the Southern Stream also complicated the Nabucco project. After several years of economic and geopolitical battles, the Nabucco project failed to secure a gas source. Even though it was backed by the EC, private business and national actors defeated the project in 2013. (Roncero [2013])

The efforts to diversify the gas supply of the EU led to another solution that can help to ease the problems of the energy-hungry countries of the continent. If the neighbours of the EU are not reliable suppliers then we should involve players from around the globe. Fortunately, we have the technology to do that. Liquefied Natural Gas (LNG) can be imported to the EU through ports that are equipped with LNG terminals. The Western European countries have capabilities that allow them to accept ships with LNG, but Eastern Europe needs to develop more capabilities to receive this kind of gas.

There are a number of potential suppliers from North America, Qatar, East Africa and even from Australia. (European Commission [2017]b.)

In the case of Hungary, the potentially closest access point to LNG is in Croatia via the Adriatic Sea. The EU decided to give Croatia 102 million euros grant to build a floating LNG terminal on the island of Krk in February 2017. (Pavlic [2017]) The terminal has been completed and operational since 2021. (Somogyi [2021])

Figure 39. **LNG Terminals in Europe**

Source: Akat [2022]

The states has to make emergency preparedness scenarios in case there is an infrastructure or market disruption. The war in Ukraine made EU countries eager to fill their gas storage, which was 70% full by August 2022, surpassing the 5-year average. This preparedness for winter had come at a price since the projected cost of replenishing stocks estimated to be over 50 billion euros, costing 10 times more than the average cost of filling up the storage. The historically high gas prices coupled with the war, and the uncertainty of Russian supplies pushed the EU towards more diversification. The EU imported 8.21 million tonnes of LNG

in the first of 2021, in the same period a year later that number rose to 21.36 million tonnes. (Sharafedin [2022])

13.5.2. Oil and the EU

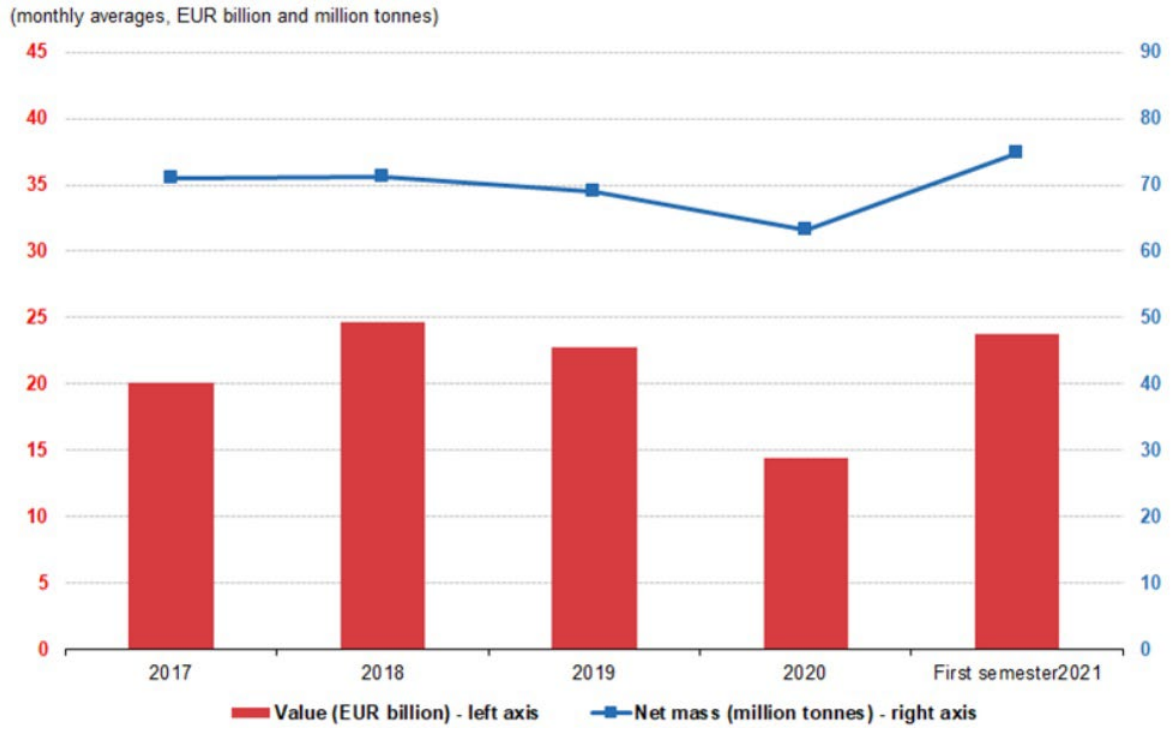
Oil is another important fossil fuel for the EU. It accounts for 34% of the energy mix of the EU. Fortunately, the EU can produce some of its own oil, but the majority of the oil is imported from outside actors. In order to secure the member states supply the EU requires them to have Emergency oil stocks.

The EU's oil Stock Directive requires member states:

- Member states must maintain emergency stocks of crude oil and/or petroleum products equal to at least 90 days of net imports or 61 days of consumption (whichever is higher)
- Stocks must be readily available so that in the event of a crisis they can be allocated quickly to where they are most needed among the members
- Member states must send the European Commission a statistical summary of their stocks at the end of each month. This summary must state the number of days of net imports or consumption that the stocks represent
- During a supply crisis, the European Commission is responsible for organising a consultation between the 27 member states. Withdrawals from stocks should not be made before this consultation, except in a very urgent situation. (European Commission [2017]c.)

The EU's main supplier of natural gas and petroleum oils Russia in 2021. This relationship can be troubling, but the good news is that Russia is dependent on the EU as well, because the revenues from oil and gas that is sold to the EU cannot be substituted in the state's budget.

Figure 40. **Extra EU Imports of Energy Products, 2017 – June 2021 (Monthly Averages)**



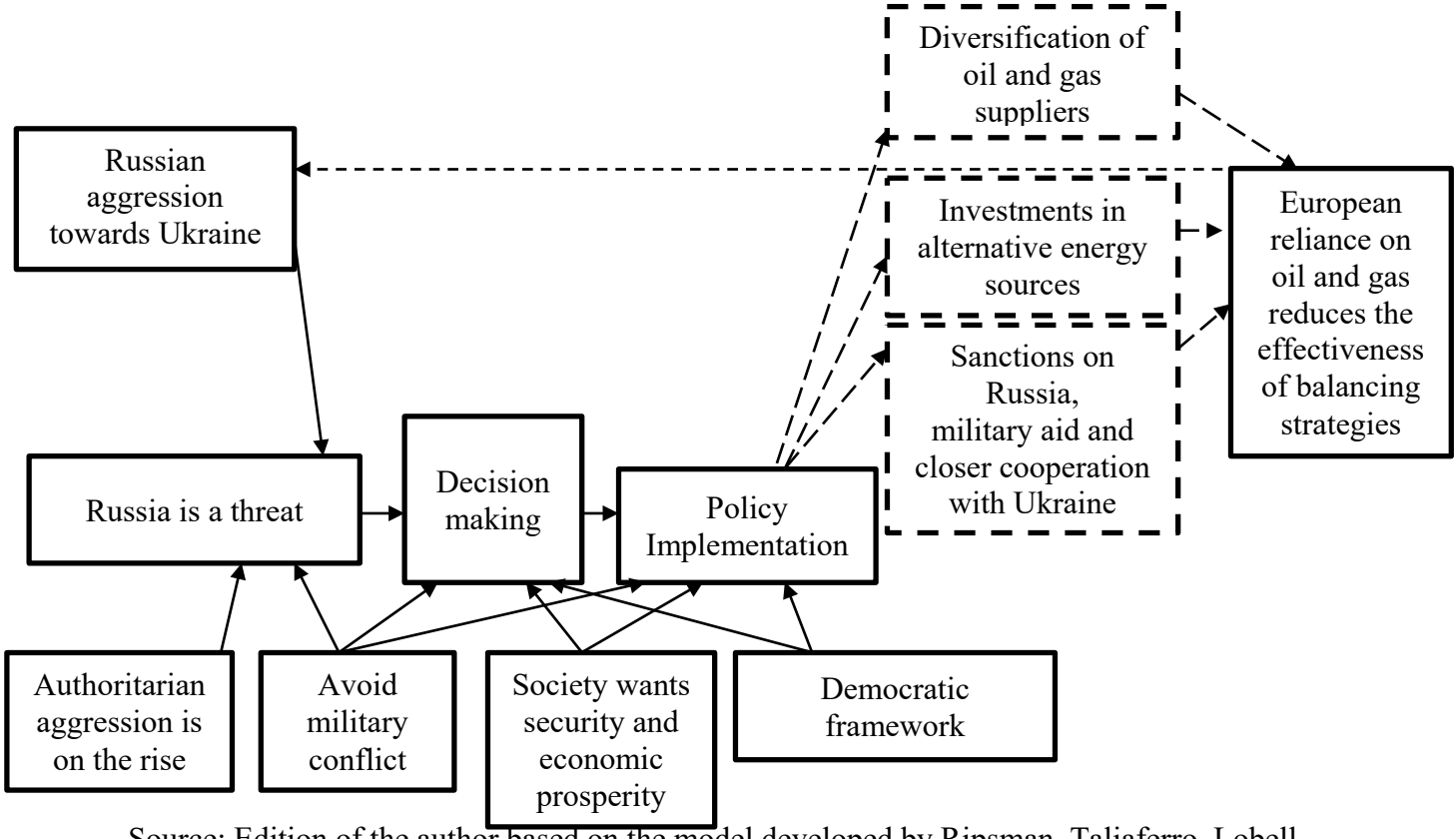
Source: Eurostat [2021]

The EU is highly dependent on fossil fuel exporters in order to satisfy its hunger for energy. One of the major supplier is Russia, but the EU tries to diversify its suppliers in order to lower its dependency.

There are numerous ways of decreasing this dependency for example building new pipelines such as the Southern Gas Corridor, or expanding the LNG terminal capabilities of the continent. However, there are a number of problems connected to energy security, and the EU has to do a lot more in order to lower the threat of an energy crisis. In addition to the existing hurdles of coordinating energy policy among the member states there are several problems to energy diversification. The reason for the prolonged dependence on Russian gas and oil is incentivized by its cheapness. Building expansive LNG terminals and storing high amount of natural gas costs a lot. Using the gas storage costs hundreds of millions of euros. (Sharafedin [2022]) Furthermore, the diversified energy mix of the EU involving non-

conventional methods of extraction (such as fracking) and the pollution of shipping LNG instead of using existing pipelines harm the environment. The already slow and relatively mild response of the world to tackle climate change takes a major blow by changing to these methods.

Figure 41. **Neoclassical Realist Model: EU's Reaction to Russian Aggression**



Source: Edition of the author based on the model developed by Ripsman, Taliaferro, Lobell, [2016] p. 34

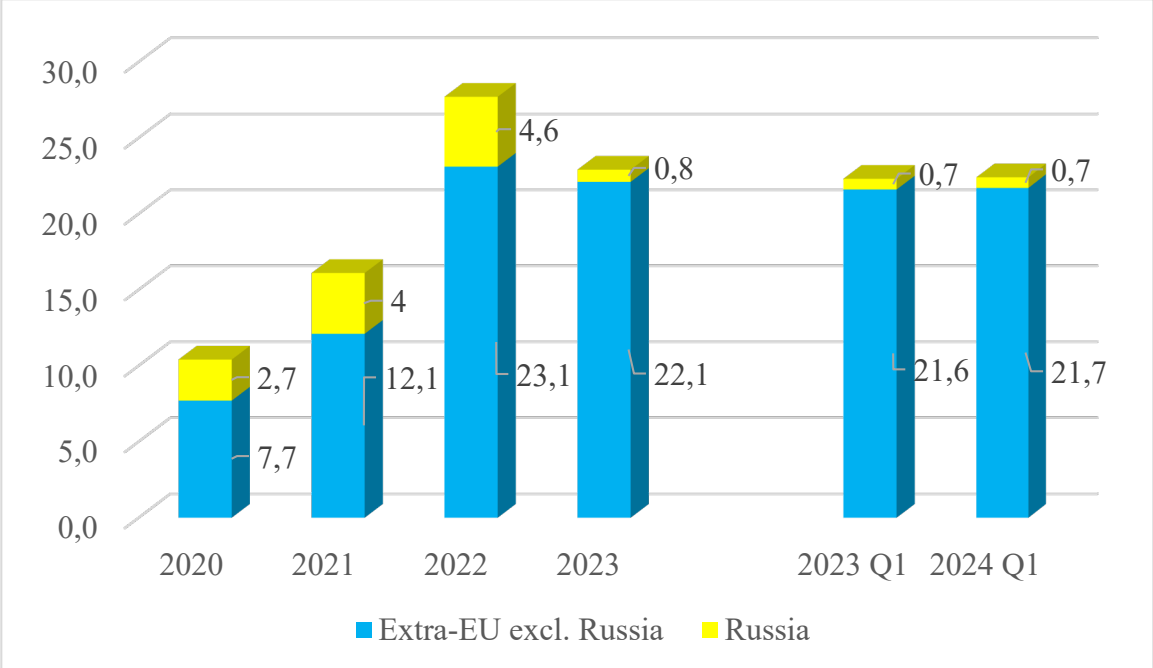
In conclusion, it seems that the countries of the European Union divert their foreign policy and their investments in order to diversify their energy sources. The Russian foreign policy in return has to examine the situation and allocate enough attention to the question, because its influence could easily fade without economic tools like oil and gas.

The balancing actions of the European countries against Russia is curtailed by Russia's role as a natural gas and crude oil supplier. Two years before the war in 2020, Russia provided 13% of oil and 17% natural gas to the whole world. Particularly, Europe got 40% of their gas

needs from Russia. (Hosseini [2022]) The natural gas provided by Russia was used to generate power, heat and industrial production. In addition to the natural gas, Russia provided more than 25% of EU's crude oil imports. This dependence made the sanctions on Russian energy resources risky. Even though reducing the income of Russia from Europe hurt the Russian economy, European natural gas and crude oil importers had to pay a much higher price to diversify their suppliers. Oil prices increased rapidly on the onset of the conflict in Ukraine as well. Short and long-term actions were initiated by European countries to lessen the economic interdependence with Russia. A rush to diversify suppliers even at a higher price and increase spending on renewable energy sources were among the most important actions. (Saktiawan [2022] pp. 1-2)

Figure 42. **EU Imports of Petroleum Oils, 2020-2024**

(monthly averages in value - € billion)



Source: Eurostat [2024]

13.6. Conclusion

The cases of the Soviet Union and later the Russian Federation shows how a country with vast amount of resources and semi-diversified economy is affected by oil and gas. The Soviet Union could finance several decades of growth with the help of the oil and gas industry and could support its allies with the black gold and natural gas.

This support came in handy when the oil crises shocked the world, but made the country incautious for the medium to long-term effects of these crises. The Western world used innovation and energy diversification as a strategy to counter further oil market disruptions, meanwhile the Soviet Union spent its oil incomes on its huge military. Finally, the lack of innovation in the USSR partially led to the dissolution of the country. In the 1990s, privatization of the oil industry brought foreign capital to Russia that desperately needed investments in order to transform itself to a major power in the end of the 20th century.

The rise of Vladimir Putin and the soaring oil prices of the early 2000s enabled Russia to get back to the rank of an important power and engage in armed conflicts in Georgia, Ukraine and Syria. The nationalization of the oil industry drove major oil companies out of the country and the Kremlin began to exert influence over the sector once again in order to use oil more freely for foreign (and domestic) policy purposes. The oil and gas revenues help Russia to maintain its still relatively big military and to use it abroad if necessary. In addition to that, oil and gas can be used as foreign policy tool to punish or reward states.

It is clear that especially the countries of the European Union are heavily dependent on two fossil fuels that Russia could provide the most conveniently. The EU tries to diversify its suppliers in order to counter any negative consequence of this dependence, but Russia is also dependent on the European countries to be its consumers. The foreign policy of Russia is heavily focused on oil (and gas) and its power projection capabilities are dependent on these two fossil fuels more than on any other commodity in its possession. Energy diversification efforts of the EU has been an ongoing struggle since the mid-2000s. However, since the war in Ukraine started, the EU intensified its efforts to be less dependent on Russian oil and gas.

These measures come at a cost, both economically and environmentally. No matter, how the war ends in Ukraine, Russia hastened the EU's willingness to be less reliant on Russia's fossil fuels. This phenomenon will bring a realignment of interests and power projection capabilities, since Russia has to find new consumers for its resources. This switch will cost Russia a lot too, since its infrastructure is not ready to divert all of its supplies to other markets, for example to the Far East.

In terms of the hypotheses of the paper Russia has been controlling vast amount of reserves (backing *H1.*), focusing its foreign policy on fossil fuels (negating *H2.)*. Furthermore, it provides an inconclusive answer to *H3.* since Russia did not lose its status as a major oil producer, but it lost its rank as a tier 1 Great Power.

14. Conclusion

The aim of the doctoral dissertation is to examine the connection between oil and balance of power through the lens of neoclassical realism. After the thorough research of the theoretical background of international relations, balance of power theory and history of oil, I divided my research into macro periods. In these macro periods and in the case studies, I examined the proposed three hypotheses.

H1. Every Great Power had access to the majority of the proved oil reserves since the Industrial Revolution. In the case of *H1.* I aggregated the available data in Table 19. to show the distribution of reserves in the proposed macro periods. In the case of *H1.* I found enough evidence to conclude that this hypothesis is correct.

H2. Ensuring access to crude oil influences the foreign policy of Great Powers. The less oil resource one state has control over, the more its foreign policy is focused on it. In the macro periods, historical examples and with the case studies I did not find enough supporting evidence for *H2.* Furthermore, in the case of the United States and Russia I found several contradictory actions that show: even oil rich states focus their foreign policy around the access to oil. *H2.* can only be correct when a Great Power has control over abundant oil sources, there is a short period of disruption of oil supply (or the crisis does not impact the global oil production) and it has enough surplus reserves that can boost production and there are direct or indirect means of increasing daily oil production independent of the crisis. In the case of *H2.* the application of neoclassical realism show a better explanatory power than other theories. In addition to systemic forces, unit level factors such as leader perception (in the case of Russia and Putin) and domestic institutions and strategic culture (in the case of Japan) showed their explanatory power in relation to energy and foreign policy.

H3. Great Powers try to maintain and/or improve their place in the international system through balancing strategies. When Great Powers cannot maintain access to oil supplies in

order to keep their power projection capabilities at a similar level as other Great Powers, they lose their status of being one. With the historical examples of the UK, France and the Japanese case study, I showed how the maintenance of access to oil through balancing strategies is an inevitable part of being a tier 1 Great Power. The loss of their rank supported *H3.* The case of Russia showed that even with high accessibility to oil sources, it is an insufficient criterion to be considered a tier 1 Great Power.

Through the dissertation I found evidence for *H1.* and *H3.* to be proved, and *H2.* to be dismissed. The explanatory power of neoclassical realism and balance of theory can still be applied in the 21st century as a great way to analyse foreign policy.

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