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Analyzing the Resource Curse theory:

A comparative study of Kazakhstan and Norway

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Bachelor thesis

Author: Dina Akylbekova

Supervisor: Erik Green

Abstract

Many natural resources lead economies experience worse economic performance than their exports lead counterparts. This phenomenon is known as the Resource Curse, and many resource abundant countries face it. This study is aimed to critically assess existing Resource Curse theory by comparing two seemingly different cases Kazakhstan and Norway. Based on the Resource Curse theory hypothesis suggests that there are institutions related preconditions determining the presence or absence of the Resource Curse in natural resource abundant countries. To achieve the research aim and test the hypothesis the study reviews three major Resource Curse theory models: the Dutch Disease, Rent-seeking and Institutions models, and apply them to Kazakhstan and Norway. The empirical findings have revealed that oil production has quite similar effects on economies of Kazakhstan and Norway, and these findings cannot be fully explained by the Resource Curse theory.

Key Words: Resource Curse, Kazakhstan, Norway, oil, institutions, rent-seeking

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Contents

Abstract	1
Table of Figures	3
1. Introduction.....	4
Aim of the Research	6
Research Question:.....	6
Limitations	6
2. Methods.....	7
3. Background.....	7
4. Theoretical Framework.....	9
The Dutch Disease model	9
The Rent-seeking model.....	10
The institutions model.....	11
5. Previous Studies.....	13
6. Empirical Findings.....	15
Importance of oil for Kazakhstan and Norway	15
Impact of oil production on economies.....	17
Institutions and rent-seeking	23
7. Conclusion	28
References.....	30

Table of Figures

Figure 1, BP, 2014	5
Figure 2, the WB, 2015.....	16
Figure 3, the WB, 2015.....	17
Figure 4, the WB, 2015.....	18
Figure 5, the WB, 2015.....	19
Figure 6, the WB, 2015.....	19
Figure 7, the IMF, 2013	20

Figure 8, the IMF, 2014	21
Figure 9, Ministry of National Economy of the Republic of Kazakhstan, Committee on Statistics, 2014.....	22
Figure 10, the IMF, 2014	22
Figure 11, the WB, 2015.....	24
Figure 12, the IMF, 2015	27
Table 1, the NRGI, 2013.....	24

1. Introduction

For many years resource abundant countries such as Nigeria, DR Congo, Venezuela and others were experiencing low economic growth and living standards. While Asian Tiger economies with hardly any natural resources like Korea, Hong Kong, Singapore and Taiwan were experiencing miraculous economic growth and achieved high living standards. The phenomenon of worse economic performance of resource abundant countries comparing to countries with fewer natural resources has given rise to a concept of the Resource curse. This concept was introduced by Richard Auty in 1993, and has since been used by some prominent scholars (e.g. Jeffrey Sachs & Andrew Warner (1997, 2001), Phillip Lane & Aaron Tornell (1999), Halvor Mehlum, Karl Moene and Ragnar Torvik (2006)).

Since 1990s when the Resource Curse concept was introduced, multiple models explaining the phenomenon developed. However, the problem is that there is no universally accepted theory to explain the presence of the Resource Curse in some countries but not others. To address this problem, this study will critically assess the Resource Curse theory by comparing two seemingly different cases Kazakhstan and Norway. The reasoning behind the choice of two cases is that Norway is one of few countries, which avoided the Resource Curse, while Kazakhstan is more likely to face the “Curse”. Moreover, Norway is a “classical” case in the Resource Curse literature, while Kazakhstan is generally ignored by this type of literature. Thus using these two cases will help to impartially analyze theory and theoretical models. In researching natural resources lead economies, the common refrain is whether the country ending up like “Norway or Nigeria”. Norway is considered one of the few countries, which managed to turn natural resources into the “blessing” rather than “curse”. Hence, Norway proves that it is possible to increase the country’s wealth and benefit each member of the society by natural resources extraction, while Nigeria is the opposite (Engen et al., 2012, p.259). On the other hand,

Kazakhstan can hardly be classified as the second “Norway” but still the country is managing natural resources much better than “Nigeria”.

Kazakhstan and Norway have significantly different economic and social development performances. In development-related indexes Norway is ranked as one of top countries, while Kazakhstan is often placed in middle or the bottom of the ranking. For instance, Norwegian GDP per capita is one of the highest in the world, and it is more than seven times is higher than Kazakhstani (the WB, 2015). The difference in social development is almost as large as in economic one, in Human Development Index Norway is ranked as first, while Kazakhstan is ranked as 70th (the UNDP, 2015).

At the same time, natural resources are the main source of revenues for both countries, and specifically hydrocarbons are dominating both economies. While discussing oil sectors in both countries, it is necessary to mention Kazakhstan and Norway are at different stages of their life-cycles as oil-producers. Norway already reached its peak of oil production, while Kazakhstan started the oil production only two decades ago and would continue oil production for another four decades (BP, 2014).

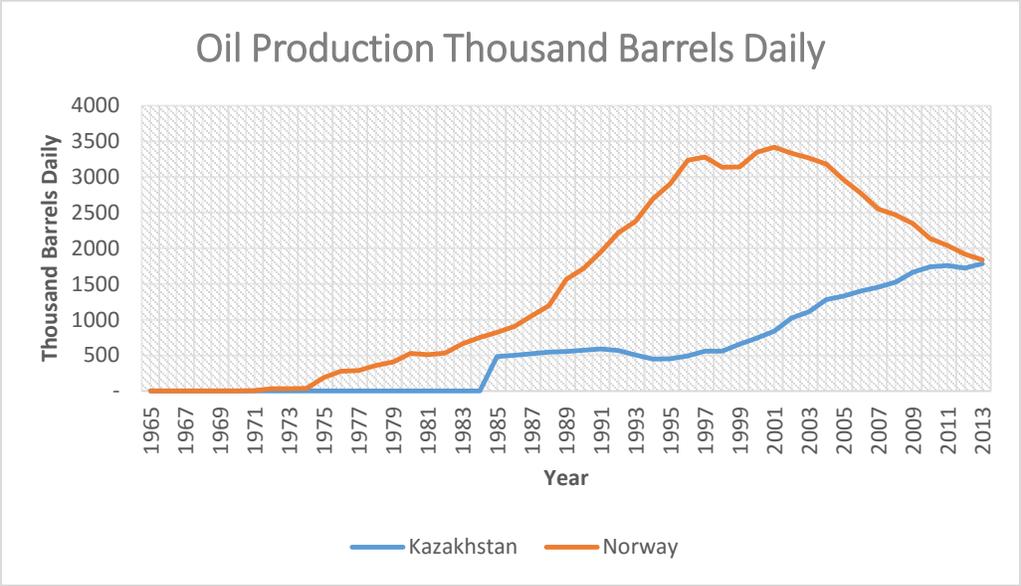


Figure 1, BP, 2014

Interestingly, two countries have some similarities in institutional settings related to oil sector. Both countries have national companies, representing state interests in oil industry KazMunayGas (Kazakhstan) and Statoil (Norway). Both companies control significant shares of

domestic hydrocarbons reserves, and both KMG and Statoil successfully expanded overseas (the KMG, 2015, Statoil, 2015). Moreover, Kazakhstan and Norway have well-established Sovereign Wealth Funds to stabilize and save oil revenues (the National Fund of the Republic of Kazakhstan and the Government Pension Fund of Norway). Both National Funds are limiting the flow of oil revenues into the budget, and still they are well-integrated into national budgets.

Aim of the Research

The aim of this thesis is to critically assess the hypothesis that there are preconditions related to institutions, determining the presence or absence of the Resource Curse in natural resource abundant countries as stated by the Resource Curse theory. There are several different theoretical models and I will look at three major ones (the Dutch Disease, Rent-seeking and institutions model) using the comparison of two case studies Kazakhstan and Norway.

Research Question:

To achieve the research aims, and test the hypothesis, the following research question with sub questions were formulated.

Can the Resource Curse theory explain cases of Kazakhstan and Norway, whatever they avoided the Curse or not.

- a) What is the role of oil in economies of Kazakhstan and Norway?
- b) What is the level of rent-seeking in Kazakhstan and Norway?
- c) What is the quality of oil related institutional frameworks in two countries?

Limitations

This study is not capable to cover all existing Resource Curse models, and thus the study is limited to three general models: the Dutch Disease, Rent-seeking and Institutional models. These three models is a general and simplified summary of existing Resource Curse theory.

Other limitations are related to the data quality and its comparability. The study includes data on rent-seeking, which is often based on estimates, and thus it might be not very accurate.

Moreover, since the study employs a comparative approach, involving two different countries, sometimes the data is coming from different sources, and then it is important to examine how comparable the data is.

2. Methods

The choice of the research strategy, design and method was determined by the research question. To achieve the research aims and answer the research question, the comparative design will be used. The comparative design involves studying two contrasting cases employing identical research methods. The comparative design can provide better understanding by analyzing the phenomenon in relation to two different cases. The major argument in favor of comparative study is that it improves theory building. It is easier to establish the circumstances in which a theory will or not hold by comparing two seemingly contrasting cases. Additionally, new concepts or theories may emerge from the comparison itself (Eisenhardt, 1989; Yin, 2003 in Bryman, 2008, p.60; Bryman, 2008, p.58-60). The comparative design will assist to achieve the primary aim of this study to assess the Resource Curse theory.

Since the aim of this study is a critical assessment of existing theories, this paper does focus mainly on theories supported by empirical data from two cases. Choosing relevant cases was one of the challenges of this comparative study. Norway is chosen as a classical case, which avoided the Resource Curse, while Kazakhstan is quite uncommon case, it is unknown whatever the country avoided the Curse or not. This choice of cases will help to impartially identify theory shortcomings. To make a comparison quantitative indicators will be used, since it is easier to operate and compare them. However, sometimes quantitative indicators cannot give the full understanding of the case, thus some specific qualitative data will be incorporated. All data for this study was collected either by official agencies (the WB, IMF and national statistical committee) or other researchers (Cohen, Satpayev & Umbetaliyeva, and Engen et al.). This data and its analysis have numerous advantages such as high quality, saved time and resources, and opportunity to analyze the data over different time periods.

3. Background

If we briefly review the development of oil industries in Kazakhstan and Norway, the more distinct structural differences can be seen.

Until the oil and gas were discovered and extracted in early 1970s, Norway was economically lacking behind its neighbors Sweden and Denmark. The started oil production along with the

exploration of new fields turned Norway into the large oil and gas producer, and allowed the country to catch-up with Scandinavian counterparts (Engen et al., 2012, p. 260).

Comparing to many other resource-abundant countries, at the time of oil exploration, Norwegian economy was well organized, the main sources of revenues were exports of wood, pulp, paper, fish, timber, iron and shipping services. Moreover, already at this time Norway was a country with a well-established democracy, efficient bureaucracy and well-educated population. Thus multinational oil companies, which were known for taking the rule wherever they operated, faced strong trade unions, environmental movements, community organizations and active civil society. All these lead the oil industry to a trajectory different from many other resource-abundant countries (Engen et al., 2012, p. 260).

With the collapse of the USSR, Kazakhstan became an independent state in 1991. Hydrocarbon deposits were discovered during the Soviet time but these large deposits were practically explored only in the mid-1990s after the independence (Cohen, 2008, p.11). For instance, large oil deposits of Tengiz field were confirmed by Soviet geologists in 1970-1980s but the proper oil extraction did not take place until early 1990s (Cohen, 2008, p. 116). This delay can be explained by the fact that Caspian fields require offshore drilling, which is technically challenging. After the failure of the USSR to develop required technologies on its own, North Caspian fields became a subject of discussions and agreements between the USSR and Chevron in 1988.

With the liquidation of the Soviet institutions, Kazakhstan became responsible for the development of an emerging oil and gas industry. Newly independent Kazakhstan cancelled all previous agreements between Kremlin and Chevron, and started to build up new institutional framework. The government set up new institutions such as the National Oil Company Kazakhstanmunaigaz, the Ministry of Energy and Fuel Resources, the Ministry of Geology and Protection of Mineral Resources. The new structure of oil industry was quite chaotic, and the jurisdiction of these bodies often overlapped, which lead to the political struggle and competition. Consequently, in Kazakhstan multinational oil companies faced institutional structure very different from Norwegian one. .

4. Theoretical Framework

The Resource curse concept was introduced by Richard Auty in his book “Sustaining Growth in Mineral economies” (1993). The Resource Curse refers to the phenomenon of worse economic performance in resource-abundant countries comparing to resource-poor countries (Auty, 1993, p.1). It can be seen that the definition of the Resource Curse is quite loose, and this causes loopholes in the whole theory of the Resource Curse. There is no neither universally accepted Resource Curse theory nor explanation of this phenomenon. After the extensive literature review, three main Resource Curse models were identified: the Dutch Disease, Rent-seeking and Institutions models. The majority of the relevant research is based on these three models or their modified versions. The models will be analyzed in chronological order, to see the development of the Resource Curse theory.

The Dutch Disease model

Firstly, the Dutch Disease model will be reviewed. In 1995 Sachs & Warner statistically confirmed the negative correlation between the resource abundance and economic growth, and basing on these results they developed a theoretical model of the Resource Curse. Now the Dutch Disease model is considered the original model of the Resource Curse theory. The Dutch Disease is an economic term, referring to a coexistence of booming sector and lagging sub-sectors of traded goods in the economy. Booming sector pressures the lagging one by pulling the resources from the later one, and causing the rise of relative price of non-traded goods. (Corden & Neary, 1982, p.825). This crowding-out logic is a basis of Sachs & Warner’s model.

Natural resources production naturally crowds-out growth-generating sectors of the economy. There is a debate about what exactly drives economic growth, the Dutch Disease model (Sachs & Warner, 1995, 1999 in Sachs & Warner, 2001) defines growth-generating sector as manufacturing. In the Dutch disease model the economy has three sectors: a tradable natural resources sector, a tradable manufacturing sector and a non-traded sector. Only manufacturing and non-traded sectors use capital and labor. In resource abundant economies, tradable production is allocated within the natural resources sector, and capital and labor are used in non-traded sector. As a result, with natural resources boom, the manufacturing sector tends to squeeze, while non-traded sector expands. Increased revenues lead to excess demand for non-traded goods and increased non-traded prices. Non-traded goods are used as inputs in

manufacturing, thus higher prices for inputs in combination with fixed international prices lead to lower profits in manufacturing sector. Consequently, the decline in manufacturing undermines economic growth. Moreover, Sachs & Warner found out the correlation between resource abundance and higher price level of non-tradable sectors, and came to conclusion that resource abundant countries have higher price levels. Manufacturing sector using expensive domestic inputs, and selling outputs in international markets, is losing its competitiveness. As the result, manufacturing sectors fail to develop, while non-tradable sectors continue to expand (Sachs & Warner, 1997, p.6, 23). Finally, natural resources abundant countries often fail to pursue export-led growth because of high-price level and lack of exports promotion.

The problem with the Dutch Disease model is that it suggests unconditional negative correlation between natural resources abundancy and economic performance. Thus the Dutch Disease model fails to explain cases such as Norway, Botswana, Australia and others, which managed to escape from the Resource Curse. This suggests that there are some important pre-conditions, which are not included into the Dutch Disease model. These important pre-conditions might include either the quality of institutions, the structure of economy or something else.

The Rent-seeking model

Comparing to the Dutch Disease model, rent-seeking model emphasizes the role of power groups and institutional frameworks. Lane & Tornell (1999) claim that economies experience lower economic growth because of distortionary redistributive activities (rent-seeking) rather than from shrinking manufacturing sector as the Dutch Disease model assumes. In rent-seeking model the natural resources sector is the one which is squeezed because of harmful rent-seeking activities, and there is no positive wealth shocks. Consequently the explanation part is also quite different from the Dutch Disease model, Lane & Tornell (1999, p. 41) explain the phenomenon of the Resource Curse by the distributive struggle in resource abundant countries, as power groups try to appropriate the rents generated by natural resources. The key to prevent or minimize negative effects of rent-seeking are institutions or coordinated actions of power groups. Power groups can be defined as local governments receiving transfers from the center, strong unions seeking patronage and conglomerates obtaining kickbacks.

Comparing to the Dutch Disease model, the economy sectors are divided very vaguely. In rent-seeking model the economy has two sectors: a formal efficient sector (in this case natural

resources sector) and informal less efficient one. The taxes levied from the formal sector are the source of fiscal transfers to powerful groups. To protect their profits from taxation, powerful groups allocate their profit in the shadow sector, which has lower rate of return. The official sector has high returns, and countries with powerful groups respond to increased revenues by high fiscal spending and slower economic growth.

Lane & Tornell (1999, p.34) explain increased fiscal spending and worse economic performance by “Voracity effect”. The Voracity effect can be defined as a more-than-proportional rise in discretionary redistribution (government spending) in response to the increased returns of official sector. The Voracity effect generates a negative relationship between increased revenues and economic growth. The mechanism of the national government as a recipient of natural resources revenues and budget processes are “convenient” for power groups to appropriate revenues by the means of government transfers. Thus, the revenues are often wasted without any gain in welfare or growth. The low economic performance indicates that public capital expenditures are not used efficiently, and appropriated revenues were consumed, invested in informal sector or abroad (Lane & Tornell, 1999, p.40).

The explanation of the Resource Curse by rent-seeking makes sense. However, the problem is that the rent-seeking model depends on the context (institutions). Institutions are determining will the economy and oil sector, particularly, be affected by rent-seeking activities. Thus, the quality of institutions is the determining factor for the Resource Curse rather than rent-seeking.

The institutions model

The following institutions model combines both institutions and rent-seeking in the analysis. Mehlum et al. (2006) developed institutions model, which focuses on the role of rent-seeking and institutions in resource abundant countries. Comparing to Lane & Tornell’s (1999) rent-seeking model, Mehlum et al. consider that some forms of rent-seeking might be less harmful than others. Moreover, institutions model analytically connects institutions with rent-seeking making the model more developed. Still in institutions model, institutions are the decisive factor of how natural resources abundance affects economic growth (Mehlum et al., 2006, p.3). Mehlum et al. write that natural resources abundance puts institutions to some kind of test, and thus Resource Curse appears only in countries with inferior institutional arrangements. The examples supporting institutions model are natural resources lead economic growth winners Botswana and

Norway, which have good institutions and low level of corruption. While countries with inferior institutions such as Nigeria, Venezuela, Mexico and Congo have worse economic performance comparing to Botswana and Norway. The mix of weak institutions and natural resource abundance causes the Resource Curse.

The main finding of the study by Mehlum et al (2006, 2006, p.7) is that natural resources abundance does hinder economic growth only in countries with grabber friendly institutions, while countries with producer friendly institutions are not affected by Resource Curse. Thus, institutions model rejects the Dutch Disease model's unconditional negative correlation between the resource abundance and economic growth. To fully understand the role of institutions Mehlum et al. (2006, p.6) incorporate rent-seeking and focus on the tension between special forms of rent-seeking and production. All forms of rent-seeking can harm the economy but some forms can be more or less harmful than others. In the economy with producer friendly institutions rent-seeking and production are complementing activities, since institutional settings such as rule of law, low level of corruption, efficient bureaucracy and low risks of the government repudiating contracts imply that efficient rent-seeking is open for producers only. In competition for natural resources rents, producers still have legal and institutional limits in lobbying for lucrative contracts, subsidies and public support. On the other hand, grabber friendly institutions provoke direct wealth grabbing: corruption, political rent appropriation, shady dealings, expropriation, extortions and others. In this situation, it is disadvantageous to be a producer, and thus production and rent-seeking are competing activities.

Natural resources rich economies constitute both growth winners and losers. According to institutions model, difference in institutions quality is the main reason of diverging economic performance among resource abundant countries. However, many resource-abundant countries have centralized power and weak institutions, and still there is a big variation of how natural resources wealth is managed even among the countries with grabber friendly institutions. Consequently, the lack of good institutions only does not explain the variance in economic performance and growth in resource-abundant countries (Kendall-Taylor, 2011, p.345).

In sum, the theoretical framework of the Resource Curse is quite inconsistent. The vague definition and absence of universally accepted explanation only weaken the whole theoretical framework of the Resource Curse. The analytical review of three major theoretical models

identified even more shortcomings of the theory as a whole, and shortcomings of each model specifically.

The Dutch Disease model suggests that there is unconditional negative correlation between natural resources abundance and economic growth. As a result the Dutch Disease model fails to explain cases such as Norway, Botswana, Australia and others, which escaped from the Resource Curse.

The rent-seeking model assumes that institutions may decrease or even prevent rent-seeking, harming the economy, but the model fails to incorporate institutions into the analysis. Thus it is unclear whatever the rent-seeking or the quality of institutions determine the economic performance of resource abundant countries. On the other hand, institutions model ignores the big variance in economic performance among countries with bad institutions. Comparing to the Dutch Disease model both the rent-seeking and institutions models do reject the idea of unconditional negative correlation between natural resources abundance and economic growth.

5. Previous Studies

The literature comparing Kazakhstan and Norway's oil sectors and resource dependency is scarce. One of few examples of academic comparison between Kazakhstan and Norway is Mathias Lucke' (2010) article "Stabilization and Savings Funds to Manage Natural Resource Revenues: Kazakhstan and Azerbaijan vs. Norway". The study gives an overview of petroleum reserves, resource rents costs, macroeconomic importance of oil sector, and oil production data between three countries. After that National funds' role is explained, and the detailed overview of each fund is given, Lucke (2010) sets up Norwegian oil fund as a benchmark. Norwegian oil revenues are managed very efficiently and transparently, while Kazakhstan oil fund lacks both transparency and efficiency partly because of strengthened presidential control over the oil sector.

As it was mentioned earlier, there is very little written about Kazakhstan. Still, following two studies give a good overview of Kazakhstan's oil sector.

Wojciech Ostrowski (2010) analyzes how Kazakhstan's political regime sustains itself by the means of oil sector in his book "Politics and Oil in Kazakhstan". To do so Ostrowski reviews the government, local and foreign companies involved into oil production both directly and indirectly during the time period from 1991 until the mid-2000s. To collect the data about these

companies Ostrowski (2010) conducted interviews with companies' workers and oil-sector related officials. Finally, Ostrwoski comes to conclusion that comparing to Norway, where the government facilitates the cooperation between local and foreign companies, Kazakhstan's oil industry develops apart from the local economy because of political interests. Thus Kazakhstan risks to follow the path of petro-states rather than Norway's path.

Yessengali Oskembayev, Mesut Yilmaz and Kanat Abdulla (2013) investigate effects of energy and agricultural resources abundance on economic growth through institutional quality in their article "Resource concentration, institutional quality and the natural resource curse". Using data from 14 regions in Kazakhstan, they claim that the type of natural resources does not have significant role in economic performance but rather an excess production, which breeds the rent-seeking, which in its turn negatively affects economic growth. The resource abundance does not influence the economic growth directly i.e. the resource curse theory might not hold. The effects of natural resources on economic performance depend on the quality of institutions.

On the other hand, Norway is a classical case in the Resource Curse literature, and thus it was a challenge to identify the most relevant ones.

Steinar Holden's article "Avoiding the Resource Curse the case of Norway" (2013) discusses the effects of petroleum sector on Norwegian Economy and reviewing main features of petroleum management. To analyze the presence of the Dutch Disease and Resource Curse Holden (2013) starts with examining the development of Norwegian oil sector and related government policies. The author checks economic indicators such as GDP per capita and manufacturing sector's wages. Holden (2013) concludes that Norway does not experience neither the Dutch Disease nor the Resource Curse due to high quality of institutions.

Ole Engen, Oluf Langhelle and Reidar Bratvold (2012) analyze why Norway avoided the Dutch Disease and the Resource Curse, and discuss the present challenges of Norwegian oil industry in a chapter "Is Norway Really Norway?" Engen et al. (2012) explain Norway's success by developed democratic framework within which the oil industry took off. Norway managed to develop the petroleum-industrial complex. This complex shows how economic and political interests create power groups, capable of influencing government policies. However, the petroleum-industrial complex did not lead to weakening institutions, since it was developed within the "Nordic model" (the development framework of postwar Nordic countries). The

Nordic model consists from institutions organizing negotiations, distributing wealth and resolving conflicts. The Nordic model stabilized oil-related political and social issues, and allowed Norwegian oil sector to avoid controversies for many years. However, recently there is a rising conflict between the petroleum-industrial complex and environmentalists.

To conclude, it is not clear does the literature in general confirm the Resource Curse theory or not. From the literature reviewed on Kazakhstan, it is still uncertain does the country experience the Resource Curse or not. The authors came to the general conclusions that Kazakhstan has quite weak institutional framework, and thus the country risks to face the Resource Curse in the future. On the other hand, the literature on Norway share the idea that the country successfully avoided the Resource Curse because of high quality of institutions. To conclude this chapter, it seems that Kazakhstani and Norwegian oil industries are following different development trajectories. Let's turn to two cases, and look at importance of oil sector, its impacts economies and roles of institutions and rent-seeking.

6. Empirical Findings

To answer the research question and test the hypothesis, the importance of oil and its impact on the economy, and institutions quality and rent-seeking will be discussed in this chapter.

Importance of oil for Kazakhstan and Norway

Firstly, the dependence of Kazakhstan and Norway from oil should be identified. To do so, contribution of natural resources to GDP and the size of natural resources rents indicators will be employed.

Figure 2 shows the contribution of natural resources to GDP in Kazakhstan and Norway. These contributions are calculated as a percentage of GDP from natural resources rents. It can be seen that in overall, the share of natural resource rents, especially oil, is very high in Kazakhstan. At the same time Kazakhstan has a large variety of natural resources, while the main source of

natural resources rents for Norway are oil, gas, and forest (0.1%).

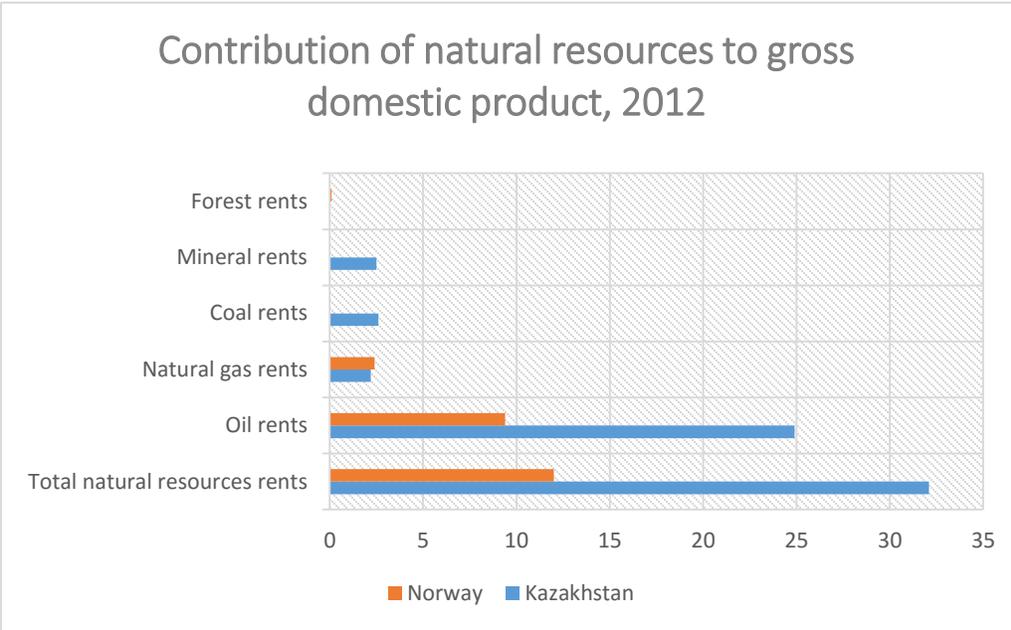


Figure 2, the WB, 2015

The following graph (Figure 3) gives information on the size of natural resources rents relating to GDP over time period from 1970 to 2012. In Kazakhstan natural resources’ rents as percentage of GDP have always been higher than in Norway, since Kazakhstan’s independence in 1991. However, one should keep in mind the significant difference in GDP between two countries, Norwegian GDP is more than two times bigger that Kazakhstan’s one. Thus both monetary contribution and monetary size of rents will be significantly higher for Norway. The increasing natural rents as well as increasing contribution of natural resources to GDP shows the rising dependency of Kazakhstan and Norway from oil.

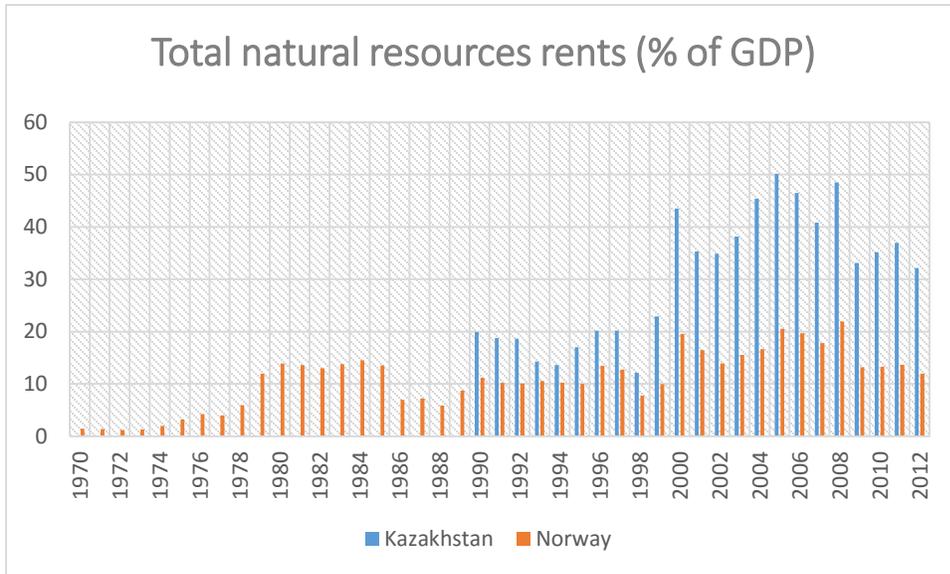


Figure 3, the WB, 2015

Impact of oil production on economies

All three models agree that countries experiencing the Resource Curse have worse economic performance. According to the Resource Curse theory, resource abundant countries should have lower economic growth than resource-poor countries. Therefore, the following graph (figure 4) shows economic growth for eleven countries for the time period between 1961 and 2013. The graph includes data on Kazakhstan and Norway, and their resource abundant and resource poor counterparts. The choice of countries was determined by both economic and historical factors. The data for former Soviet Union countries is available only from late 1980s, while for Scandinavian countries the data is available for the whole period. In average it can be seen that there is no dramatic difference neither between Norway and its Scandinavian counterparts, nor between Kazakhstan and its former Soviet Union counterparts. Consequently, at least for this cases resource abundancy does no cause the difference in economic performance, which contradicts the Resource Curse theory.

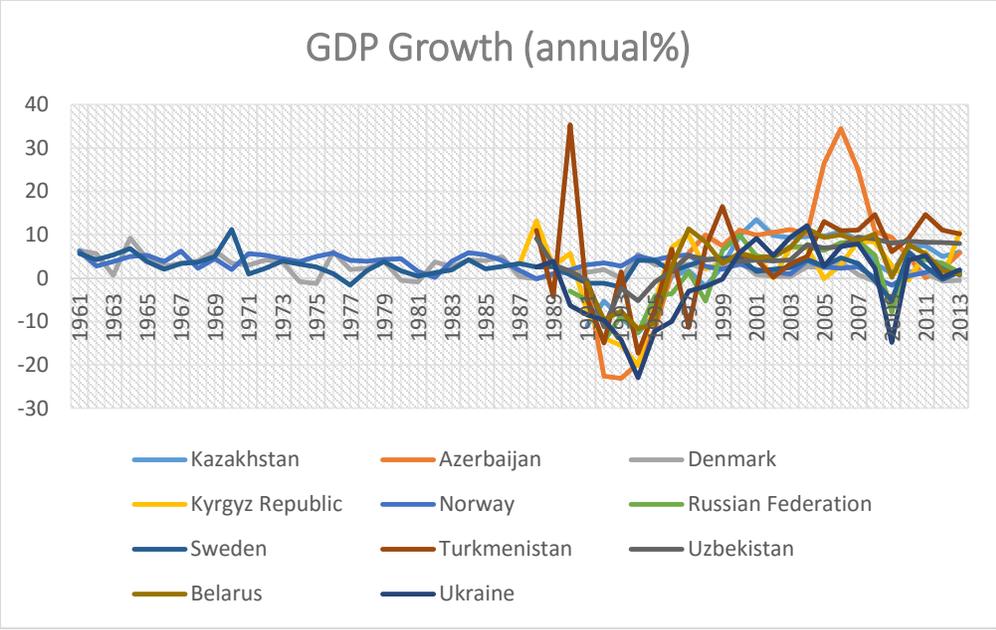


Figure 4, the WB, 2015

To continue with the analysis, the GDP structure will be examined. Figure 5 shows the GDP structure in Kazakhstan and Norway in 2000 and 2012. It can be seen that in both countries the share of industries increased over time, while manufacturing decreased. According to the Resource Curse theory, the decreasing share of manufacturing can be one of the signs of the “Resource Curse”. Moreover, the manufacturing share decreased quite significantly in both countries, which might mean that the manufacturing sector is actually crowded out by natural resources sector. At this point it is very interesting that the share of manufacturing is higher in Kazakhstan than Norway. The following figure (Figure 6) represents the structure of merchandise exports of Kazakhstan and Norway. Surprisingly, the structure of exports is quite similar in both cases. The share of fuels exports is quite high in both countries, while other sectors goods have less significant shares. The decreasing share of manufacturing and fuels dominance in exports may suggest the idea that both countries might be experiencing a potential Resource Curse.

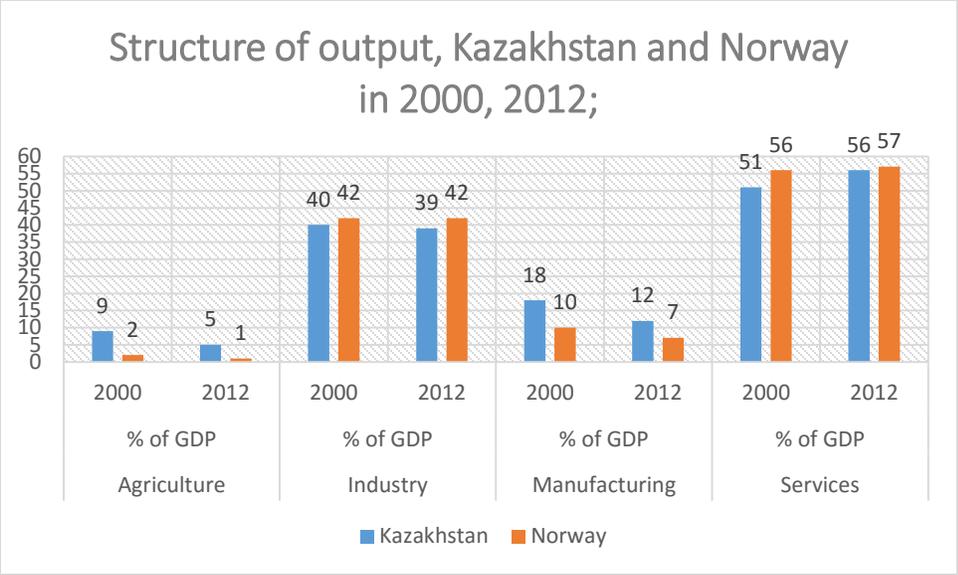


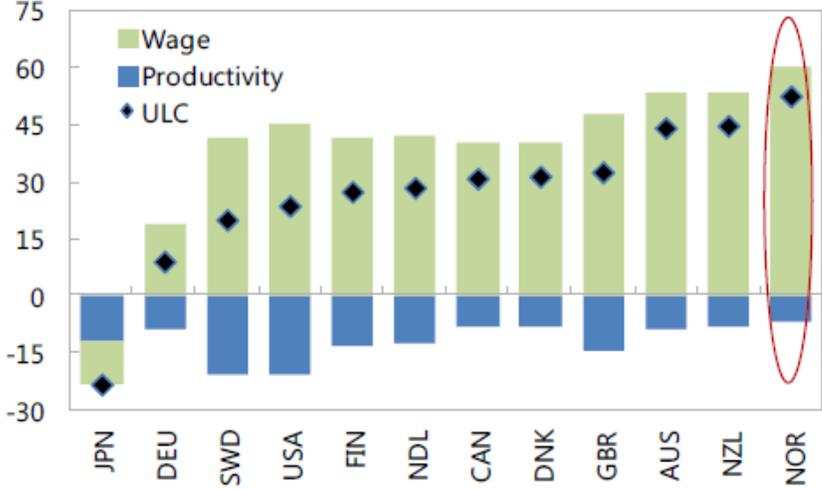
Figure 5, the WB, 2015



Figure 6, the WB, 2015

The declining share of manufacturing and non-oil exports suggests weakening competitiveness of non-oil sectors, and the erosion of competitiveness of the economy as a whole. There is no comprehensive measure of economic competitiveness but the Unit Labor Costs can reflect the cost of competitiveness. Unit labor costs (ULC) can be defined as “the average cost of labor per unit of output and calculated as the ratio of total labor costs to real output” (OECD, 2015). The ULC is a link between the cost of labor and productivity in generating output. In the case if the rise of the ULC is higher than the rise of productivity, the overall competitiveness of the economy will decrease. In the case of oil-producing countries, higher labor costs negatively affect non-oil sectors of the economy: high wages of oil sector are pushing up wages in other sectors, thus undermining the competitiveness of non-oil sectors (the IMF, 2013). On the following graphs, it can be seen that the ULC in Norway are significantly higher than in other European countries. At the same time productivity rise is slower than the rise of labor costs. Consequently, the non-oil sectors of Norway are becoming less competitive.

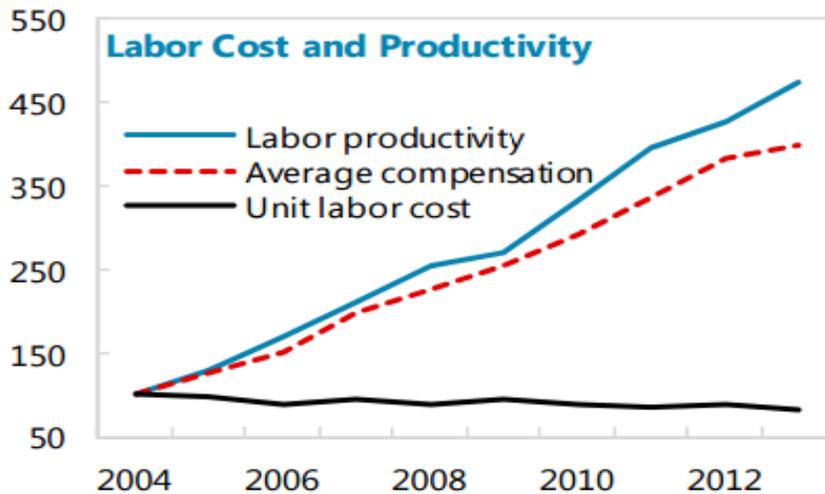
Figure 1.15. Contributions to Unit Labor Cost Changes, 2000-2012 1/
(Cumulative percent change)



Sources: AMECO and IMF staff calculations.
1/ Negative sign for productivity means growth, not decline

Figure 7, the IMF, 2013

The following graph shows that in Kazakhstan the rise of Unit Labor Cost is actually lower than the rise of labor productivity. According to IMF report (2014), Kazakhstan is actually gaining competitiveness, which suggests that country still might pursue exports-lead growth.



Source: IMF staff calculations.

Figure 8, the IMF, 2014

According to the Resource Curse theory, the resource abundant countries tend to have high price level in general. As it was discussed earlier high labor costs without increased productivity lead to lower competitiveness, and it seems to be a case for many resource abundant countries. Often natural resources-related sectors have higher wages than other sectors, and this might rise wages in the whole economy. Theory does not assume that only higher wages crowd out manufacturing but still higher wages of oil-sector might lead to lower innovations and entrepreneurship in non-oil sectors. Entrepreneurs and innovators are encouraged to shift to oil sectors due to higher returns, and thus the manufacturing experiences lower productivity and innovations (Sachs & Warner, 2001). The following graphs are giving information on average monthly earning by economic activities in Kazakhstan and Norway. In Kazakhstan employees of mining sector have significantly higher wages than their counterparts in other sectors. However, high wages of the mining sector has not lead to increased wages in other sectors.

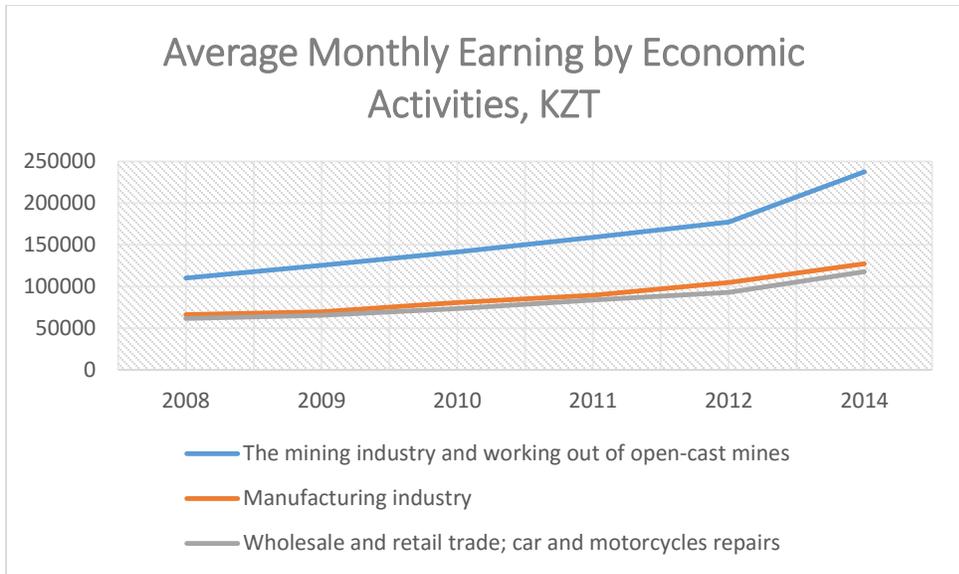


Figure 9, Ministry of National Economy of the Republic of Kazakhstan, Committee on Statistics, 2014

The figure 10 shows the changes in monthly earnings by sector for Norway, and it can be seen that wages in non-oil sectors are also increasing, especially in retail and wholesale trade. This can lead to the conclusion that the oil sector is pushing up wages in other sectors as well.

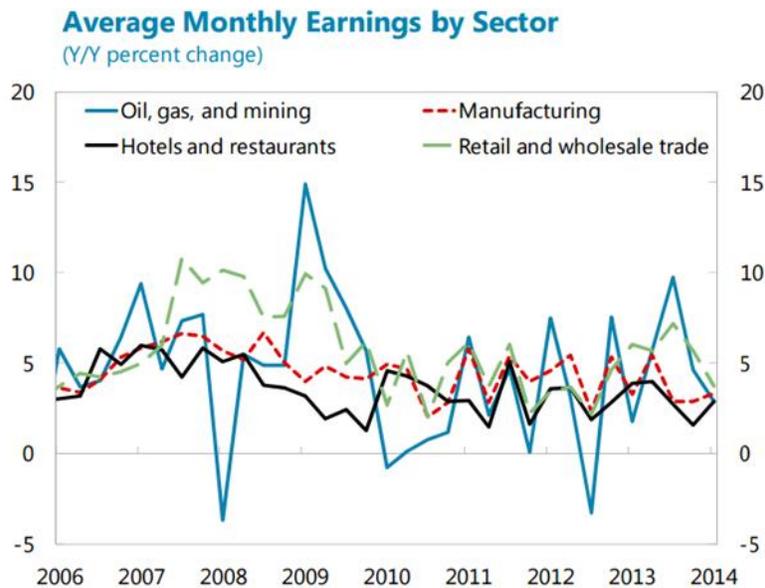


Figure 10, the IMF, 2014

Finally, after reviewing the importance of oil sector and its impact on the economy, it might be concluded that oil sectors are dominant in both Kazakhstan and Norway. The petroleum sector has large shares in countries' outputs and exports, and the sector's revenues contribute

significant share of countries' GDP. It can be seen that the oil sector negatively affected Norwegian economy's competitiveness by rising wages in non-oil sectors, while Kazakhstan's economy is not affected by the oil sector in the same way. Kazakhstan actually managed to gain competitiveness by keeping low wages and increasing productivity. However, the economic growth rates of both Kazakhstan and Norway are not very different from each other, and they are not very different from their counterparts neither. In the end, the results are contradicting each other, and it is still not clear are the countries experiencing the Resource Curse or not. To find out the clear explanation, and clarify these contradictions, one should try to refer to theoretical models. The following section will apply institutions and rent-seeking models to the cases of Kazakhstan and Norway, potentially these models can explain the empirical findings presented earlier. The Dutch Disease model would not be included, since the model is lacking explanation of the Resource Curse phenomenon (see theoretical part).

Institutions and rent-seeking

To analyze the institutions quality, two indexes will be used: the Worldwide Governance Indicators (WGI) Project and Revenue Governance Index (RGI). The WGI is one of the most commonly used institutional quality indexes. The WGI is produced by the World Bank affiliated institutions, and the research is financed by one of the World Bank research programs. The WGI is a dataset combining the views of enterprise, citizen and expert survey respondents on the quality of governance. The survey data is produced by think-tanks, survey institutes, non-governmental organizations, private sector firms, and international organizations. The WGI Project includes six indicators of governance: Voice and Accountability, Rule of Law, Political Stability and Absence of Violence, Regulatory Quality, and Control of Corruption. The indicators are presented in a form of percentile ranking. In this percentile ranking 0 corresponds to the lowest rank, while 100 corresponds to the highest (the WGI, 2015).

Figure 11 shows the WGI indicators for Kazakhstan and Norway in 2013. Overall Norway is placed among the countries with the highest scores range of 90-100, while Kazakhstan is ranked in the second lowest percentile range of 10-25 (WGI, 2013). The difference between two countries is especially large in Voice and Accountability and Control of Corruption indicators.

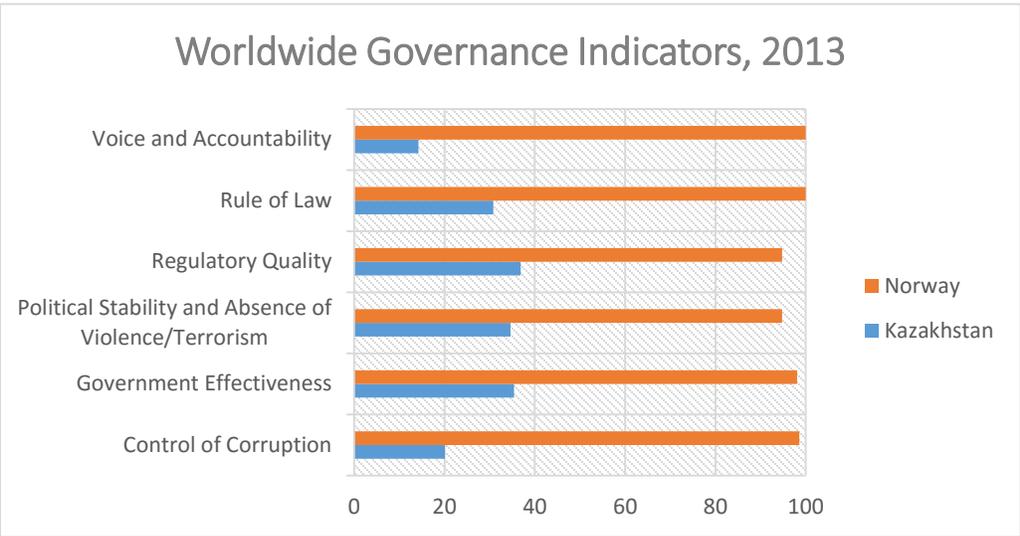


Figure 11, the WB, 2015

The second index RGI is produced by an independent non-governmental organization Natural Resource Governance Institute, which promotes effective, transparent and accountable management of natural resources. The RGI measures the quality of governance in the oil, gas and mining sectors in 58 countries. The RGI is based on expert survey, which is quite similar to the WGI index. The RGI includes four main indicators: Legal Setting, Safeguards and Quality Controls, Reporting Practices, and Enabling Practices. Additionally, the index provides information on special mechanisms to manage natural resources - state-owned companies, subnational revenue transfers and natural resource funds. For total scoring (where the Reporting Practices account for 40%, and other indicators account for 20% each) Norway is ranked as number one, while Kazakhstan is ranked nineteenth. As in the Worldwide Governance Indicators Project, in this index Kazakhstan has the lowest score in the indicators related to the government accountability (the NRG, 2015).

Rank	Country	Resource measured	Composite	Institutional and legal setting	Reporting practices	Safeguards and quality controls	Enabling Environment
1	Norway	Hydrocarbons	98	100	97	98	98
19	Kazakhstan	Hydrocarbons	57	62	58	76	32

Table 1, the NRG, 2013

After reviewing the quantitative data on institutional quality, it might be concluded that the quality of institutions in two countries is very different. However, one should be aware of the statistical data limitations. It is quite hard to quantify the quality of institutions, thus some additional evidence is required. From the previous studies, it was found that Kazakhstan's oil sector was involved into multiple controversies, the most well-known were the Kazakhgate Corruption Scandal and Zhanaozen riots. The Kazakhgate Corruption Scandal was centered on the bribe payments of \$78 million paid on behalf of multinational oil companies ExxonMobil, ChevronTexaco, ConocoPhillips and British Petroleum to Kazakhstan's top officials in 1990s to secure lucrative oil contracts. The case originated as a corruption investigation aiming at the former prime minister, and it was initiated by Kazakhstan officials. However, the investigation changed the trajectory once the FBI and Swiss authorities got involved. The joint investigation uncovered a scheme of bank accounts linked to Kazakhstan's senior officials. The government kept a distance from both the trial against the American citizen, who facilitated oil contracts and from the uncovered bank accounts. Later, the government had to admit the existence of bank accounts and transfer money for the charity (Cohen, 2008, p.59).

Zhanaozen riots refer to the labor conflicts in three oil companies (national KazMunaiGaz, and two joint ventures with CNPC and ENI) happened in Zhanaozen town (Western Kazakhstan) in 2011. Western Kazakhstan is well-known for high price level, high unemployment rate and underdeveloped business sector. The region is dependent from the oil producing sector, which does not provide many employment opportunities for local people. Moreover, workers have bad living and working conditions, many local households lack basic services. Zhanaozen, where the main protests took place, experienced significant population increase during the oil boom, thus the population consisted from foreign workers and domestic labor migrants. The disproportional remuneration between the local and foreign workers caused tensions. The conflict between local workers and companies started in May, and escalated in December. The companies refused to recognize unofficial labor unions, while the workers ignored the official pro-government labor union. Companies and local authorities kept a hard line, and responded to protests by dismissing workers. On Independence Day (December 16th) the police tried to clear the square from the tent city set up by dismissed workers, this provoked the protesters. As a result of the clash between protesters and the police, at least 16 people were killed and more than 100 injured. Witnesses reported that the police was shooting unarmed protestors but the government shielded the

security forces by claiming that they had to defend themselves. The unrest continued for another couple days, with the government imposing the state of emergency and curfew, and limiting internet and phone communication in Zhanaozen. The lack of strong independent institutionalized labor unions pushed people towards informal unions and protest actions. Zhanozen riots did not lead to any serious institutional reforms except some political reshuffling (Satpayev & Umbetaliyeva, 2015). At first this conflict can be viewed as a regular labor conflict but actually it might be viewed as conflict over rents between capital and labor. The oil-companies, shielded by the government, claimed that wages were already high enough, ignoring the fact of the region's high price level. The companies determined to increase the profits, kept the wages low. On the other hand the government did not ensure fair distribution of oil revenues between the regions, and oil-producing regions' population was excluded from rising economic prosperity, concentrated in Astana and Almaty (current and former capitals).

On the other hand, Norwegian oil sector has not been involved in any controversy except some political clashes between the oil sector and environmentalists. For many decades there was a general agreement between political parties regarding the development of oil sector. However, recently there is a debate regarding the domestic use of natural gas, exploration of new fields in Lofoten areas and the Barents Sea, and the climate change. Currently this debate is won by oil industry, since the industry has a significant power in Norwegian politics. Thus the industry has a power to resist any fundamental changes in the economy and fossil fuels consumption. In the future Norway might develop in the direction of a petro-state, which prioritizes oil production and fossils consumption over the environmental issues. However, despite of the fact that the oil industry has a vast political power, oil related politics are still institutionalized and the part of democratic political system of Norway (Engen et al., 2012).

The qualitative information seems to confirm the institutional quality indexes: Norway has much better institutional settings than Kazakhstan. If the institutions model applied to these two cases, then Norwegian institutions can be considered producer friendly, since they prevent direct wealth grabbing and facilitate oil production. On the contrary, Kazakhstan institutions can be regarded as grabber friendly, since the institutions provoke corruption and hinder the production. Then following institutions model's logic, Norway with its good institutions should not experience the Resource Curse, while Kazakhstan with its inferior institutions should experience it.

If one apply the rent-seeking model, Kazakhstan does not have neither institutions, capable to prevent rent-seeking, nor power groups coordinating their activities. Thus country should have unreasonably high fiscal spending, to satisfy power groups with their share of appropriated revenues. However, from the graph below (figure 12) it can be seen that Kazakhstan actually follows quite prudent fiscal policy with low government expenditures level. Moreover, it can be seen that Kazakhstan’s spending level is quite stable over the last decade, comparing to other natural resources lead economies. On the contrary, Norway spends quite a lot but high government expenditures can be explained by the generous welfare state.

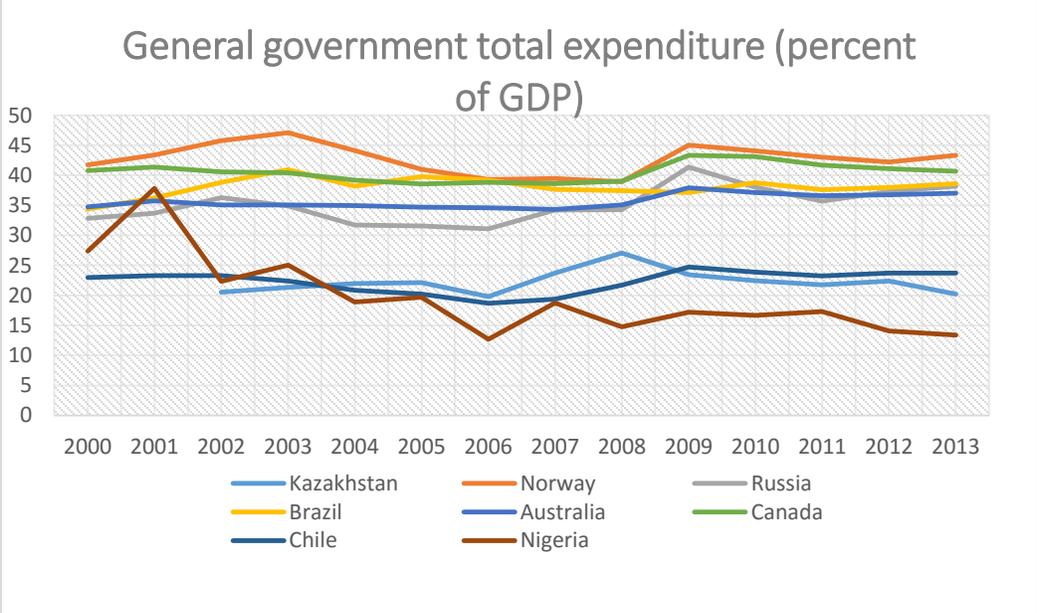


Figure 12, the IMF, 2015

To sum up this chapter, Kazakhstan and Norway have very different quality of oil-related institutions. As both quantitative and qualitative data prove Kazakhstan is vulnerable to rent-seeking activities, while Norwegian institutions prevent harmful rent-seeking. Despite this difference, the economic effects of oil production are quite similar for both countries. Rent-seeking and institutions model fail to explain similar economic effects of oil sector on economies of Kazakhstan and Norway. Finally, the empirical part shows that the Resource Curse theory cannot give clear explanation to similar economic effect of petroleum sector on economies of Kazakhstan and Norway. Moreover, presented theoretical models implied that the effects should be different due to institutional quality but it does not stand anymore.

7. Conclusion

The study tested the hypothesis “there are institutions related preconditions determining the presence or absence of the Resource Curse in natural resource abundant countries.”, and came to the conclusion that the hypothesis does not stand, since Kazakhstan and Norway have very different quality of institutions but still the economic impacts of oil sector on economies are quite similar. Thus the institutional preconditions identified by the theory do not affect the way how the oil production was expected to affect the economy.

The study answered the formulated research question “Can the Resource Curse theory explain cases of Kazakhstan and Norway, whatever they avoided the Curse or not”.

a) What is the role of oil in economies of Kazakhstan and Norway?

The quantitative data shows that the oil sectors are dominating over other sectors in both Kazakhstan and Norway. The hydrocarbons revenues constitute significant shares of the countries' GDP. As a result of rising oil sector, the manufacturing sector is being crowded out. Interestingly, the rising oil sector negatively affected only Norwegian economic competitiveness, while Kazakhstan actually increased its competitiveness.

b) What is the level of rent-seeking in Kazakhstan and Norway?

The qualitative data shows that in the past Kazakhstan had multiple cases of harmful rent-seeking in the oil sector. At the same time the quantitative data, represented by the government spending, shows that the rent-seeking is supposedly decreasing, since the government spending has been quite low and stable for the last decade. On the other hand, the qualitative data did not reveal any harmful rent-seeking in Norway, except some political tensions between the oil sector and environmentalists. The quantitative data on government spending shows that Norway has very high level of government expenditures caused by the generous welfare system.

c) What is the quality of oil related institutional frameworks in two countries?

The employed by the study two indexes identified that Kazakhstan and Norway have a big difference in the quality of institutions. Moreover, the qualitative data on rent-seeking confirmed that Kazakhstan have worse institutions comparing to Norway. Consequently, Norwegian

institutions can be considered good and producer-friendly, while Kazakhstan one are bad and grabber-friendly.

After answering the sub questions, one can go back to the main research question. As it was mentioned before, the empirical data reveals that the hydrocarbons have quite similar effects on economies of Kazakhstan and Norway even if there is a big difference in the institutions quality. None of the reviewed theoretical models was capable to provide coherent explanation to the similar economic performance of these two seemingly different cases. Finally, the Resource Curse theory cannot fully explain the similarities between two seemingly different cases Kazakhstan and Norway, and this might suggest that the theory needs to be more developed.

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