Zarina Niyazova

Fiscal Management of Oil Revenues: Challenges and Issues
The Case Study of Kazakhstan

Bakalářská práce

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Anotace
Předložená bakalářská práce přibližuje problémy a výzvy spojené s rozpočtovým řízením příjmů z exportu ropy. Na příkladě postsovětského Kazachstánu zkoumá příjmy z exportu ropy, mechanismy jejich výběru, jakož i jejich význam pro politický, hospodářský a sociální rozvoj státu.

Annotation
This bachelor thesis discusses challenges and issues associated with fiscal management of oil revenues. In order to analyze these challenges, it is crucial to define what oil revenues are, how are they collected, and what is their significance for country's political, economic, and social development on the example of Kazakhstan.

Klíčová slova
Kazachstán, rozpočtové řízení, ropa, ropné příjmy, ropné fondy

Keywords
Kazakhstan, fiscal management, oil, oil revenues, oil funds
**Prohlášení**

1. Prohlašuji, že jsem předkládanou práci zpracovala samostatně a použila jen uvedené prameny a literaturu.

2. Souhlasím s tím, aby práce byla zpřístupněna veřejností pro účely výzkumu a studia.

V Praze dne 18.05.2011

Zarina Niyazova

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Abbreviations and Acronyms

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<th>Abbreviation</th>
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<tr>
<td>CIS</td>
<td>Commonwealth of Independent States</td>
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<td>EITI</td>
<td>Extractive Industries Transparency Initiative</td>
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<td>EPT</td>
<td>Excess Profit Tax Regime</td>
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<td>ERR</td>
<td>Exchange Rate Regime</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>FSU</td>
<td>Former Soviet Union</td>
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<td>IOC</td>
<td>International Oil Company</td>
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<td>JV</td>
<td>Joint Venture</td>
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<td>KMG</td>
<td>KazMunaiGaz</td>
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<td>MSR</td>
<td>Ministry of State Revenues</td>
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<td>NBK</td>
<td>National Bank of Kazakhstan</td>
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<td>NOC</td>
<td>National Oil Company</td>
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<td>OBI</td>
<td>Open Budget Initiative</td>
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<td>PDVSA</td>
<td>Petroleos de Venezuela S.A.</td>
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<td>PSA</td>
<td>Production Sharing Agreement</td>
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<td>RER</td>
<td>Real Exchange Rate</td>
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<td>RRT</td>
<td>Resource Rent Tax</td>
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<td>SOE</td>
<td>State-owned Enterprise</td>
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<td>USD</td>
<td>United States Dollar</td>
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<td>VAT</td>
<td>Value-added Tax</td>
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<td>World Bank</td>
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1. Introduction

The experience of the last century has shown that resource abundance has controversial effects on national economies. While in some countries the resource abundance contributes to the economic growth and sustainable development, in others the resource discovery causes degradation, corruption, and economic downtimes. There are many different economic and political schools seeking to explain the phenomenon of this “resource curse” and identify its causes. Some schools of thoughts identify rent-seeking as a cause of resource curse, while others blame price volatility or phenomenon known as Dutch disease that leads to deindustrialization and economic slowdown.

This thesis deals with the most striking and debatable of resources: oil. The primary aim of the thesis is to identify importance of oil revenues for economic development, provide a description and analysis of fiscal management of oil revenues, and examine specific challenges and issues posed by oil wealth to the governments and national economies. The author's primary motivation for the choice of the thesis “Fiscal Management of Oil Revenues: Challenges and Issues. The Case Study of Kazakhstan” is predicated by the importance of the issue for economic development and existence of deficiencies in political and economic research in the field. Oil rents were chosen as a primary subject of interest based on the significant role of the commodity in national and world economy that undermines the very existence of today’s world that other natural resources, such as minerals, metals etc., do not have.

The thesis is structured into five chapters. After this opening Chapter 1, Chapter 2 introduces what oil revenues are, which mechanisms are used to collect them, and what is their influence on the overall economy. Subsequent Chapter 3 deals with the fragmented aspects of fiscal management of oil revenues. First, it identifies key actors that play role in the revenue management. Second, it presents individual instruments of revenue management, such as oil funds and the mechanism of their operation. These two Chapters form the first theoretical part of the thesis. The primary aim of this theoretical part is to introduce legal and economic aspects of fiscal management that are necessary for its deeper understanding. Finally, Chapter 4 forms
second part of the thesis and is devoted to the application of the theoretical knowledge of the previous two Chapters on the case study of Kazakhstan.

The first part (Chapter 2 and 3) of the thesis introduces theoretical framework for fiscal revenue management. It commences with highlighting the role of oil revenues in the economy and state and continues with detailed analysis of oil revenue management actors, mechanisms, and tools. This part of the thesis aims to provide comprehensive and detailed analysis of operational, structural, and logistical aspects of resource revenue management through examination of the actors and instruments involved in it. Chapters 2 and 3 aim to familiarize reader with those aspects of revenue management that are crucial for understanding of economic and political effects on country’s development and the Chapters do not aim to provide exhausting technical summary of all aspects of revenue management. Furthermore, as the word “fiscal” indicates, it doesn't devote almost any attention to the management of oil revenues in the private sector and at international oil companies. It is strictly limited to an analysis of fiscal oil revenues, hence oil revenues collected and managed by the government or one of its agencies. The thesis discusses international oil companies only to that extent to which they influence government and fiscal management of oil revenues.

The second part of the thesis (Chapter 4) is devoted to the case study of Kazakhstan’s oil revenue management. This Chapter builds on the expertise and information provided in the previous Chapters 2 and 3 and applies it on the particular case study of Kazakhstan’s economy since post-privatization period in 1997 to present. The time framework is set since 1997 because privatization greatly transformed the structure of oil industry and commenced a new period for Kazakhstan’s economy. The Chapter examines actors and instruments participating in the oil revenue management in the country and shows how country-specific social, political, and economic circumstances influence decision-making process in the fiscal management. Firstly, in Kazakhstan the development of oil industry took place simultaneously with process of state-building and economic transition from Soviet command model to free market economy. Secondly, the Kazakhstan's government inherited a complex of Soviet institutional structures,
along with sensitive ethno-national situation, where almost half of population were of European origin and formed most of the country's intelligentsia. These factors contributed to the unique formation of fiscal management of oil revenues.

Various primary and secondary resources have been used for the completion of the thesis. Primary resources were used to introduce reliable data, such as statistics and fiscal analysis issued by International Energy Agency, Kazakhstan's national oil company KazMunaiGaz, World Bank, and International Monetary Fund. For the secondary sources, other authors with vast experience in the field were chosen. These include Rolando Ossowski, Charles McPherson, and Martha Brill Olcott, to name just the most important ones. Majority of secondary publications are published in English. Publications related to fiscal management of oil revenues virtually do not exist in Czech language, and existing publications in Russian language mostly didn't fulfill the author's quality criteria. Nevertheless, some of the authors from Kazakhstan who publish their work in English and currently work at international research centers, such as Yelena Kalyuzhikova, were studied and quoted for the purpose of this thesis. Author's key guide to economic analysis of fiscal management was International Monetary Fund's publication “Fiscal Policy Formulation and Implementation in Oil Producing Countries” edited by Jeffrey Davis, Rolando Ossowski and Annalisa Fedelino, while other operational aspects of revenue management owe much to David Hofman's doctoral thesis “Oil and State-building in Post Soviet Azerbaijan and Kazakhstan.” Additionally, the thesis is completed by the methodology of a case study, in consistency with empirical analysis. Finally, to a smaller extend quantitative analysis is presented.
2. Oil Revenues

2.1 Role of Oil Revenues in Economic Development

Natural resource abundance has controversial effects on national economy. A common sense would lead to an assumption that a discovery of natural resources and associated capital influx would facilitate one country's economic growth and prosperity. However, last forty years of experience have shown otherwise. Numerous studies have revealed that resource-abundant economies are prone to become dependent on resource revenues and consequently tend to have slower growth rate than countries at a similar level of development that are not natural resource abundant. Many publications have addressed this phenomenon over the last years. However, there is no general consensus on what causes it. Whether it is a consequence of Dutch disease, macroeconomic volatility, loose macroeconomic policy management and rent-seeking, or of all the factors combined, depends on the particular case and point of view.

There are three primary schools of thoughts offering different explanation to the causes of this phenomenon. First, the rent-seeking school of thoughts explains the slow growth pace of natural resource based economies by rent-seeking behavior. This concept was introduced by Professor of Economics and Law Gordon Tullock in his presentation of 1967 about the idea that rent-seeking could lead to social costs. Briefly, this concept can be characterized as a situation when an actor, be it a state, company, organization, or an individual, uses its power to obtain financial gain by manipulation and power abuse without reciprocating any benefits to the society. The emergence of rent-seeking is associated with common pool resources. Common pool problem is a situation where costs are shared between many agents, while benefits are gained by only a few. In result, when applied on government as an actor in common pool problem, it can lead to overspending and distorted allocation of resources. In oil producing states individual entrepreneurs and companies become less entrepreneurial and engage in unproductive rent-seeking to appropriate the existing oil wealth, instead of endeavoring maximization of profit and wealth. Hence, in times when saving resources is best policy, actors such as government or

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companies still prefer continuous spending assuming there is uncertainty over future. Such uncertainty arises from ill-defined property rights, common pool problem, corruption, or instability of legal system, among others. For instance, corporate lobbying for quota or tariff measurements is a type of rent-seeking behavior. This activity doesn't create more assets and doesn't benefit the society; it simply redistributes the existing financial resources from taxpayers to a small interest group.

Second school of thoughts sees volatility as the key factor responsible for the negative effect of the oil wealth on economy. The oil income is highly volatile because the price elasticity of supply and demand is inelastic. This means that the quantity of oil supplied and consumed cannot be adjusted according to the price changes in the short-run economy. Additionally, thanks to the elasticity, a minor change in quantity of oil extracted can have a huge economic impact. Hence, it is not surprising that such volatility has detrimental effects on sustainable economic growth and raises political, economic, and social instability. Nevertheless, despite the obvious welfare losses stemming from volatility, the volatility itself cannot be blamed for the overall massive economic decline exhibited in oil abundant countries.

Third popular explanation of unfortunate oil abundance effects is the Dutch disease theory. The term was first coined in the Netherlands in the 1960s, where the discovery of oil and gas deposits in the North Sea led to shrinkage of tradeable sector. Dutch Disease theory exploits the link between manufacturing and natural resources capital inflows. An increase in the oil prices attracts more investment and concentrates the capital in this particular sector of economy. Hence, the oil sector attracts more labor force and contributes to the appreciation of the local currency. As a result of the appreciation of the exchange rate, the local manufactured goods become less competitive on the international market (since they're more expensive to produce), causing a large decline in the manufacturing sector. Therefore, the increased demand caused by

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revenue windfalls shifts the economy's productive resources from tradeable to non-tradeable sector. Nevertheless, although this approach to the problem is very appealing, it doesn't explain in general why would a resource-abundant country grow at a slower pace than countries with no resource abundance starting at a similar level of development. It only states that the boom in resource revenues is associated with a decline in manufacturing, not a decline in overall economic growth.

There is an alternative approach to explain what undermines economic troubles associated with resource abundance presented by Ricardo Hausmann and Roberto Rigobon. Their economic model suggests that it is the interaction between specialization and financial market imperfections that is responsible for the detrimental effect of oil wealth on the national economy. Besides these explanations, there are other less complex theories or factors identified as detrimental to economic development of oil-rich countries; however, the purpose of this section (2.1) is to lay out the basic framework for assessing the role of oil revenues in economic development.

Regardless of which theory one supports, it is evident that proper fiscal management of oil revenues is a key to sustainable economic growth. Hence, it is important to understand what oil revenues are and how they are managed.

2.2 Sources of Oil Revenues

Oil revenue is a financial income of a company, state or other organization that stems from exploitation, production, and export of oil. This paper examines primarily the oil revenues collected in public sector by a government or one of its institutions. There are three basic mechanisms for collection of resource revenues. First is an excess profit tax regime (EPT). Under EPT the oil company is liable to pay bonuses, royalties and other types of taxes and fees

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in return for the exploration and ownership rights over the resources. In practice, it means that the government agrees to succession of resource ownership and in return it taxes the owner (foreign company) to full extent. Second type of collection mechanism is production sharing agreement (PSA). Under this arrangement companies play a role of a contractor hired to lead the oil development. The contractor carries all risks while profits are shared. The last type is joint venture (JV). With JV arrangement the risks and profits are shared between the state and the foreign company. The differences between these types of arrangements are of a conceptual nature and basically reflect the level of control given to an international oil company over the resources and the extent of state involvement. Although the mechanisms of revenue collection differ strongly, there is no universal reason to prefer one to the other. For instance, the particular goals set in PSA can also be achieved by direct taxation and vice versa. However, specific circumstances can lead to a preference of one or the other. Hence, the primary task of this section (2.2) is to provide an overview of the most common types of sources of oil revenues and mechanisms under which they are collected. The upcoming sections (2.2.1 to 2.2.6) characterize basic sources of oil revenues, mechanisms of their collection and the pros and cons.

2.2.1 Excess Profit Tax Regime

(i) Royalties

Royalty is a payment usually made by an international company to the government immediately after the production commences. Hence, for the government it is an attractive revenue collection tool. The term itself dates back to the history of England and an associated idea of a royal “Crown” that owned the below ground assets on its territory. Anyone participating in exploitation of the wealth in the ground was obliged to pay a royalty to the government. Nowadays, royalties typically have a form of specific levies, based on the volume of oil extracted, or of ad valorem levies, based on the value of oil extracted. The implementation is

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easy to administer. However, in circumstances where the marginal cost of oil production rises, the investors might be discouraged from investing if royalties are too high. This issue has been tackled by countries such as Chile or Norway where the rate of royalty depends on the level of production, or by other countries such as Peru or Kazakhstan where royalty rate depends on other measures, such as nominal return.\(^8\)

(ii) Income Tax

Income tax is a payment levied on an income of individuals, corporations or other legal entities. Like royalties, income taxes have various deviations depending on particular jurisdiction. In principle, it is very similar to the other forms of taxation of business profit, such as branch profit tax. In case of oil companies, corporate income tax tends to be higher than tax levied on companies in the other sectors. There are various shortcomings in this form of oil revenue, such as the occurrence of “earning stripping.” Earning stripping refers to a process by which an enterprise reduces its overall tax liability by shifting income to a foreign tax jurisdiction with lower tax duties. It's a complicated issue that includes extending one's debt to another affiliate. Subsequently, it results in debt accumulation at a jurisdiction with high taxation while allowing a company to deduce interest payments from the income that underlies taxation.\(^9\) Countries tend to place a limit on the use of debt financing to limit this phenomenon and avoid decreased tax income.

Additionally, when designing an income tax, it is important to take into account the extent of “ring-fencing.” Ring-fencing refers to what Sunley calls a “limitation on consolidation of income and deductions for tax purposes across different activities, or different projects, undertaken by the same taxpayer.”\(^10\) In practice, it's used to separate a branch company from its

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parent company in order to decrease risks associated with financial instability. Hence, firm may form a new subsidiary to protect, in other words, ring-fence, particular assets from creditors and other tax authorities.\textsuperscript{11} As Sunley et al. state, ring-fencing matters for two reasons. First, it may postpone government tax revenue, because an enterprise that is involved in a series of projects is capable of deducting exploration or development costs from every new project, against the earnings that are already generating taxable earnings. And second, as the exploitation of oil fields goes on, absence of ring-fencing can lead to a preferential treatment of incumbent firms against the new entrants with no income against which to deduce exploration or development of costs.\textsuperscript{12}

(iii) Resource Rent Tax

Resource Rent Tax (RRT) was first introduced in 1987 by Australia to apply on several new offshore projects.\textsuperscript{13} It's a tax levied on the net cash flow of oil (or other natural resource) exploitation projects. It requires a definition of an adequate threshold rate for income return on a particular project, and the rate aids determining the deductible liability for RRT. The projects that are under RRT framework do not pay any tax until the original investment had been recovered with interest equal to the threshold rate.\textsuperscript{14} This form of taxation is an attempt to make the taxation less distortive and more stable for potential investors. While investors are better off, the government can be left behind. Hence, this form of taxation is often combined with loyalties or other fees to ensure government's profit with less profitable projects. It is not as straightforward as other forms of taxes or royalties, and it raises various controversial issues when being designed and implemented. As Sunley et al. point out, for RRT to be efficient it has to be properly designed and each of contract area needs to be ring-fenced to avoid costs incurred in one contract to be used to offset the revenues in another contract area. While RRT is very


\textsuperscript{12} Emil M. Sunley; Thomas Baunsgaard; Dominique Simard. “\textit{Revenue from the Oil and Gas Sector: Issues and Country Experience}”, in Fiscal Policy Formulation and Implementation in Oil-Producing Countries, Davis, Jeffrey; Ossowski, Rolando; Fedelino, Annalisa. (Eds.), (Washington, D.C., International Monetary Fund, 2003): p. 159.


appealing in theory, it has not been used that much in practice. The reason behind could be the difficulties of designing such tax, particularly the choice of hurdle or tax rate. Primary reason is that if the hurdle rate is too high, there is a possibility that the resource rent tax will never apply; and if it's set too low, the tax may be discouraging for investors.\textsuperscript{15}

(iv) Indirect Taxes and Payments

Alongside direct sources of oil revenues, such as income taxes and royalties, there are also indirect forms of revenue collection applicable to oil exploitation, production, and export. First is value-added tax (VAT). VAT is an indirect consumption tax assessed depending on the value added to a product at each separate moment of production and distribution. The tax is levied on the end consumer.\textsuperscript{16} Most common international practice levies the VAT based on the final destination principle. Therefore, imports are taxed and exports are zero-rated.\textsuperscript{17} Second example is export duty. Export duty is a type of tariff that aims to increase governmental revenues and collect the windfall gains that cause price volatility. Alongside taxing measures, there are various other fees, licenses and similar payments that can be classified as a source of oil revenue.

2.2.2 Production Sharing Agreement

Production Sharing Agreement (PSA) is a very common type of contracts for oil exploitation and production. Under this arrangement, the state remains the official owner of the natural resources, and the international oil company (IOC) is hired as a contractor that financially and technically assists the development and exploitation of the oil deposit. In this case, the state is usually represented either by a ministerial body or by an NOC. Both parties (IOC and the government) agree to specific revenue sharing terms and conditions. Usually, the first revenues from exploitation are to cover the costs endured by IOC, and once the costs are fully covered, the revenues that represent the actual profit are shared between the government and IOC.

\textsuperscript{15} Emil M. Sunley; Thomas Baunsgaard; Dominique Simard. “Revenue from the Oil and Gas Sector: Issues and Country Experience”, in Fiscal Policy Formulation and Implementation in Oil-Porducting Countries, Davis, Jeffrey; Ossowski, Rolando; Fedelino, Annalisa. (Eds.), (Washington, D.C., International Monetary Fund, 2003): p. 160.


\textsuperscript{17} There are a couple of exceptions such as CIS countries and European Union's fiscal stance.
Occasionally, there are additional conditions to the agreement, such as an obligation of IOC to buy 40% of equipment, machinery and similar necessities from local producers.\(^\text{18}\)

As Kirsten Bindemann points out, PSA differs from other types of contracts in two aspects. First, the IOC carries all the exploration risks. Hence, if no oil is discovered, there is no mechanism that compensates the company for exploration costs. Second, as mentioned above, the government owns both exploited resources and installations.\(^\text{19}\) In countries with a cleptocratic government this could pose a challenge for IOC because of the privileged position of the government that might engage into informal or semi-formal form of bribery.

### 2.2.3 Joint Venture

JV is a type of legal partnership where, unlike with PSA, both parties actively participate in the exploration and contribute to it with their assets and also share the risks. It is a preferential form of contract, specifically when one wants to expand a business, develop a new product or penetrate a new market overseas. A recent survey by the World Bank shows that 34 out of 49 (roughly 70%) of oil producing developing countries had adopted JV in one form or the other in their upstream activities.\(^\text{20}\) As Kirsten Bidemann states, it is one way for an enterprise to prevent the state from implementing policies that are detrimental to enterprise's interests, particularly because the interest of state in form of NOC becomes closely associated with that of IOC.\(^\text{21}\)

Among important advantages of a JV for the domestic country is a spill-over effect of transferring know-how from IOC to NOC. Specific conditions and terms of revenue share vary vastly depending on the particular agreement. Wojciech Ostrowski maintains that JVs, if successful, can be much more profitable option for both government and IOC in the long run than other profit sharing arrangements.\(^\text{22}\)

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3. Management of Oil Revenues

3.1 Overview

Management of oil revenues consists of three stages. First is collection of oil revenues described in detail in the previous Chapter. Second is performance of fiscal policy by the government and its bodies. This stage is crucial for country's economic performance as it determines what portion of oil revenues should be spent, saved, and sterilized. Finally, third is redistribution of oil revenues that is closely linked to the performance of the fiscal policy. This Chapter explains by whom and how is fiscal management conducted. First part of the Chapter identifies key actors of fiscal management, analyzes their position and describes their role and influence over fiscal management. Second part of the Chapter lays down the possible fiscal policies and available instruments for fiscal management.

3.2 Oil Revenue Management: Actors

There are three primary actors conducting oil revenue management: government (either at national or subnational level), national oil companies, and international oil companies. All actors are closely intertwined and their roles can occasionally overlap.

3.2.1 Government: Central versus Regional

As the term “natural resource” indicates, oil is a part of nature, and as such belongs to a particular territory that is under the jurisdiction of a particular state. This fact itself denotes the importance of a state in exploration and production of oil. State with its government is officially an actor that sets the “rules of the game” and influences the country's economy through fiscal policy. In case of oil revenues the state rules through established governmental agencies, such as ministries and NOCs. However, although government is the official principal and a primary shareholder of NOCs, their relationship is rather complicated (this issue is examined in detail in section 3.2.2).

Philippe Le Billon came up with an analysis that connects together the type of natural resource discovered in a country, its location, and the likelihood of consequent political or social
conflicts. Le Billon divides resources into two categories: point and diffuse. Point resources are concentrated in a small territory and include resources that can be most commonly exploited by capital-intensive extractive industries. In contrast, diffuse resources are spread over a large area and their collection and exploitation requires a lot of work force; therefore it's a rather labor-intensive good. Based on that, oil qualifies as a point resource. Furthermore, Le Billon examines the effect of proximity of a resource (in our case, oil field) to a central state authority. He comes to the conclusion that when the resource is point and proximate to the capital (that is usually the location of a state authority), then potential conflict of interests in power is likely to result in coup d'etat or foreign intervention. On the contrary, when resources are distant, the conflict is likely to result in a secession of the territory. Hence, oil revenues windfall can be a source of a great political imbalance.\textsuperscript{23} In this manner, the location of an oil field and its proximity to the central authority can trigger political or social instability. Therefore, the issue of who should manage oil revenues, the central or regional government, is tremendously important, as it can either smooth or catalyze existing regional tensions.

There is a controversy about which responsibilities should be under national control, and which should fall under subnational jurisdiction. Charles E. McLure considers five points that play key role when comparing subnational and national revenue management potential. First is the destination of royalties from subnational ownership of resources. In a scenario when ownership control falls under the regional jurisdiction, there is no tendency to tax oil revenues as they are already in subnational ownership. Additionally, the regional government might also receive oil revenues from one of the four ways described. Second issue is subnational legislation and tax implementation. In various countries, such as US and Canada, subnational governments have either exclusive or concurrent rights to legislate and collect taxes on natural resources. These rights can be limited and regulated by national laws. For instance, there can be limits on the types of taxes or tax rates that can be levied by the regional government. In practice, this can create overlaps and contradictions in tax bases. In countries where conformity is required it can

raise legal issues. Third issue is related to subnational surcharges and national taxes. Occasionally the conformity between regional and central governments can be highly comprehensive. This results in the creation of subnational surcharge on the national tax. Subnational government can collect these surcharges themselves or a national government can collect these surcharges for them. Fourth influential factor is tax sharing. In this context tax sharing refers to the practice of returning revenues from specific taxes to regional governments on a derivation basis, meaning, to the jurisdictions where the oil revenues originate. This concept can be viewed as a surcharge system with an important deviation when subnational government has neither fiscal autonomy nor power to influence revenue management. The last issue concerns revenue sharing. In this scheme the revenues are shared with regional jurisdiction on the basis of pre-agreed formula, rather than through channeling to a jurisdiction of origin as was suggested in frameworks above. Revenue sharing is on way to offset vertical fiscal imbalance. Alternatively, the center and regions can share the revenues in a way that offsets horizontal fiscal disparities created by a geographical concentration of oil.24

The above paragraph has shown that the government as an actor doesn't have to be a homogeneous unit, but can be internally segmented on central and regional players. Nevertheless, the real role of the government in oil revenue management can further vary depending whether it is a unitary or federal state, the extent to which the country is dependent on the oil revenues, political regime etc.

### 3.2.2 National Oil Companies

The origins of NOC as an institution date back to the 1920s, when NOCs such as Yacimientos Petrolíferos Fiscales (Argentina) and Petroleos Mexicanos (Mexico) were founded.25 The worldwide expansion of NOCs in the 1970s was triggered by a worldwide urge for nationalism, independence and tendency for a state intervention. As Charles McPherson explains: “NOCs were expected to operate 'upstream,' that is, in oil exploration and production, as well as

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'downstream,' that is, in crude oil refining, product importing, and marketing.\(^{26}\) Nowadays, their importance is vital, as in 2008 they controlled about 78% of world reserves with limited equity access and 10% with equity access.\(^{27}\) In general, the role of NOCs has transformed over the years. Various events, such as oil price volatility present in the 1980s, the collapse of the Communism and associated privatization have substantially contributed to the transformation of NOCs' role. Nevertheless, NOCs remain one of the key actors at the world energy market, as 25 out of 50 world's top companies are NOCs.\(^{28}\) Contributing to the importance of NOCs the fact that they possess know-how and expertise over the resources within the territory of the respective country. Therefore NOCs stand in a privileged position and possess a competitive advantage in this information asymmetry.

NOCs promote national development that arises when the linkages between oil sector and the rest of the economy are created. According to Paul Stevens, there are two primary categories of linkages: financial and production linkages. Financial linkages imply consumption and fiscal linkages. Consumption linkage refers to the way in which consumers spend the income generated by the sector, while fiscal linkage refers to NOC's ability to generate rent by petroleum production and consequent maximum rent capture for national development. On the other hand, production linkages concern forward and backward linkage types. Forward linkages represent the oil sector supply input to the rest of the economy, and backward linkages represent the oil sector draws on inputs from the rest of the economy.\(^{29}\) In other words, the key raison d'être for NOCs is to ensure “fair” redistribution of oil revenues (that IOCs cannot guarantee), regulate activities relating to the exploitation of natural resources, and tax private firms participating in exploitation.


More specifically, NOCs are responsible for things like job creation, development of local industrial capacities, social infrastructure, regional development, and state borrowing. In most countries, these tasks are considered responsibilities of the government. However, in states where NOCs exist, the responsibilities have been channeled to them. Primary reason for this is the belief that the vast financial resources that NOCs control ensures their capability to complete these tasks successfully. Nevertheless, in reality the burden of these noncommercial objectives drains the cash flow needed for reinvestment and distracts managerial attention from its commercial and business functions and objectives.³⁰

Consequently, it is not surprising that the assessment of NOCs efficiency with regard to economic rationale shows rather disappointing results. For instance, a management audit of Pertamina Company, the Indonesian NOC, revealed losses of over USD 2 bil. per year, an amount representing approximately 10% of Indonesia's annual national budget.³¹ To understand why this is, we have to look at the basic framework under which state owned enterprises (SOEs) operate. SOEs face different set of goals and challenges than corporations.³² The state ownership indicates that the key company's objective is not only maximization of profit, but also fulfillment of a given political and social agenda. Hence, the market efficiency of the NOCs can be compromised by non-economic objectives. The extent to which this is true varies from company to company. Furthermore, SOEs by their nature are protected from the bankruptcy, knowing that in times of financial turbulence they can always be bailed out by the state. While this can act as an insurance of permanent stability, it is more likely to pose a key disincentive for the company to increase efficiency, innovate and have a good management of resources. Additionally, because the SOEs are managed by the politicians currently in the office, depending on the political system, they also might be prone to engage in rent-seeking before their mandate is over. Nevertheless, some NOCs are listed on stock exchanges. Operation of

³² Corporation is legal entity that is chartered by a state and is given legal rights. It is characterized by a limited liability of its owners, the issuance of shares of easily transferable stocks, and existence as a going concern.
these NOCs will not differ much from the operation of IOCs, as they are required to provide auditor accounts and other operation documents. This fact increases their transparency and is conducive to their economic overall performance.

The relationship between the government and the NOC is not always simple. Although the NOCs are officially under the supervision of the government, sometimes, the individual managers of NOCs might use their position to create informal and formal networks to support their own objectives which can be different from those of the state. Wojciech Ostrowski shows that the web of these allies is built through long-term exclusive contracts awarded to various subcontracting companies that have close links to key members of government. NOCs bosses invest a lot of effort and resources into a creation of this patronage network. Their political power can be demonstrated by the efforts of non-democratic states that try to enforce changes in the existing power structure between NOC and the government. For instance, Hugo Chaves in Venezuela, after coming to power at the end of the 1990s, sought to bring the NOC Petroleos de Venezuela S.A. (PDVSA) that acted as an independent enterprise under his personal control. The key dispute was related to the funds PDVSA used to invest abroad which, according to the new government, would have been better spent for social needs in the home country. PDVSA in response organized in 2002 nationwide general strike that was initiated by PDVSA allies and a few opposition parties as well as business groups and the Confederation of Trade Unions. The dispute continued and brought mixed results. Nevertheless it was a perfect example of how NOCs can create their own state within the state.


3.2.3 International Oil Companies

Unlike NOCs, where the owner is the government, the owners of IOCs are shareholders. Nevertheless, the distinction between NOC and IOC can sometimes be troublesome, as NOCs, such as BP, Total, and ENI, have over years been privatized or substantially privatized, and hence behave like private firms. Others, like Petrobras and StatoilHydro, though partly privatized, continue to behave like state-controlled firms.\(^{35}\)

Amy Myers Jaffe and Ronald Soligo offer an interesting view on IOCs role in their paper The International Oil Companies:

“Like so much of the modern economy, the oil industry functions on the basis of a nexus of contracts with many subcontractors. Each firm is highly specialized in what it does. Increasingly, the IOCs have become more like general contractors, coordinating the operation of a number of suppliers who themselves are the ones who undertake seismic work, analyze data, provide drilling rigs and crews and a host of oil field services. The larger IOCs also serve the function of bankers, providing the vast amount of financial resources required to mount greenfield projects in increasingly unfavorable and difficult environments. They also provide the management, organizational skills, and oversight that these large projects require.”\(^{36}\)

The role of IOC should be maximizing profit of shareholders. They can be involved in upstream, midstream and downstream businesses. However, as illustrated by Peter Hartley, this is a simplification that might not be always true. In practice, corporations are owned by shareholders (principals) and managed by managers (agents). Agents are likely to be interested in a different set of goals than their principals. For instance, it is likely that managers would prefer to commit to an action that would enrich their individual wealth rather than maximizing firm's market value (in other words, shareholder's wealth).\(^{37}\) The two can but don't have to be positively correlated. Often the agent decides to involve in self-enriching activities at the


expense of the principal. For this reason, corporations, unlike NOCs, have established several control mechanisms to address this issue.

3.3 Oil Revenue Management: Instruments

The second Chapter shows that there are various economic challenges associated with oil revenue windfall. First, there is an issue of the appreciation of real exchange rate and the so called Dutch disease effect. Second is increased corruption and rent-seeking. And third is a weak fiscal discipline when it comes to public spending. Although there is a general consensus that revenue windfall was rather a “curse” than a “blessing” for the majority of resource-abundant countries, this curse is not inevitable. Various measures can be implemented to strengthen fiscal discipline and avoid the above mentioned detrimental effects. Alongside economic challenges there are various social challenges, among them: should the government support economic stability by saving the revenues, or should the government use the revenues to solve current social tensions?; how much of the revenues should be spent now, and how much should be saved for future generations?; and should inhabitants of the oil-rich regions receive more money through public spending than those in oil-poor regions? Lastly, there are political issues that are strongly tightened to the social and economic challenges, including corruption, bad governance, and fair redistribution questions.

Although there is no universal formula for addressing these issues successfully, there are some measures that aid sustainable development in oil-rich countries. Among the most pragmatic instruments used are oil funds. Oil fund is usually a state-owned investment fund that comprises of financial assets (stocks, bonds etc.). Funds can be virtual or real. As the name suggests, virtual fund is a part of a regular country's budget and doesn't require an establishment of a separate legal basis. Money can be saved in and spend out following usual country's fiscal routine. A real fund, for its part, is a separated entity that has its own management and audit and requires a specific legal approval for its foundation and operation. The establishment of such fund depends on country's legal system; it can be done either through a constitutional amendment or by a creation of a law or regulation. Same results can be achieved by the two
funds. The preference of one or the other depends on an overall transparency. This section (3.3) examines primarily the real funds, as their role and performance is well traceable.

Oil funds are best created after the discovery of the oil but before the first revenues are being received. The initial round of exploration of oil revenues catalyzes internal discussions about the size and impact of the revenues. This in turn leads to dilemmas regarding spending levels and recipients, what makes it a naturally perfect time for the government to make decisions regarding the level of spending, saving, or sterilization the revenues. In the next three sections all three types of funds (stabilization, saving, and financial funds) will be described and analyzed in detail.

Oil funds, if managed properly, can be a powerful fiscal tool to avoid detrimental effects associated with “resource curse.” Nevertheless, there are alternative ways to address these social and economic hurdles. Steven Barnett and Rolando Ossowski have come to the conclusion that stabilizing, saving for future, or investing abroad to sterilize large foreign exchange inflows can be also achieved by implementation of a wise and sound fiscal policy in the context of the nation’s overall budget strategy. For instance, the creation of a policy framework or binding agenda for medium term objectives would set rules for spending the revenues and suit the goal.

3.3.1 Stabilization Fund

Stabilization funds aim at minimizing the negative effects of the price volatility and stabilize the economy. Furthermore, they foster good fiscal discipline and greater transparency. The fund is designed to accumulate resources when the resource price or revenue is high, and to pay out when the revenue is low. The determination of low and high revenue income is usually set according to pre-agreed benchmark. Therefore, primary objective of the fund is to smooth the

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39 Ibidem, p. 5-8.
cycles of revenue volatility and income fluctuations. In this way the stabilization fund brings the economy back to its equilibrium by manipulating the monetary flows.

The issue of determining the portion of money that should be injected in the economy during the downturn, and determining whether the downturn is temporary, long-term or permanent is creating various obstacles to effective operation of such funds. Furthermore, the stabilization fund doesn't affect the most controversial issue in revenue management: spending. Moreover, stabilization funds don't possess the ability to reduce revenue uncertainty and detrimental effects of volatility on its own.\textsuperscript{42}

3.3.2 Saving Fund

Saving funds primarily address the issue of inter- and intra-generational equity and exhaustibility of natural resources, volatility, and involves precautionary principle. Various stimuli suggest that saving revenues and using them to purchasing financial assets or reducing public debt is a framework that ensures sustainable economic development.

First is the issue of exhaustibility and inter- and intra-generational equity. If the government aims to achieve equal revenue redistribution for present and future generations, the revenues themselves should generate future earnings streams. Saving substantial part of excessive oil revenues in the fund that is based abroad is financially profitable from the long-term perspective as it is the investment abroad that allows the fund to receive the benefits and maximize savings. Second is the issue of revenue volatility and associated instability. Due to the price inelasticity of oil, the income from oil rents is highly volatile. Hence, if government is engaged in long-term projects that require extensive spending, there is constant uncertainty whether the project will be accomplished. Hence, having back-up savings that can smooth abrupt cuts in the budget is a good choice. Another reason to save oil rent income is the fact that at the moment of the resource discovery the country might lack sufficient opportunities for domestic investments or consumption expenditures that would benefit it to the same extent as financial investments. As

such, when the level of domestic spending is too high in comparison to the current production capacities, it leads to an increase in prices of non-tradeable goods.\textsuperscript{43} Hence, restricting public spending that might lead to inefficient allocation of resources and waste is a convenient option until the absorption capacity of the country increases. Lastly, application of precautionary principle is an important impetus to follow saving strategy. Due to revenue volatility and exhaustibility of oil, it is good to have back-up savings for the case of emergency or severe drops in production of oil (and associated decrease in oil revenues).

Nevertheless, as Steven Barnett et al. argue, like stabilization fund, saving fund is subjected to conceptual issues. In this regard the authors point to the fact that saving fund wouldn't have to lead to higher savings in the absence of liquidity constrains. The reason is that if the government can borrow to finance its transfers to the fund, the usefulness of placing floors on how much to fund should save on a gross basis would be limited because the net indebtedness would thus not be constrained.\textsuperscript{44} Another issue with saving fund arises when fund is managed completely separately from the rest of the state budget. The lack of such synchronization can lead to overall economic inefficiencies and loopholes in the country's fiscal policy.

3.3.3 Financing Fund

Financing fund is the least known type of fund. Its aim is to finance and support overall balance of the state budget. The role model for this type of funds can be Norwegian State Petroleum Fund (also known as Government Pension Fund).\textsuperscript{45} In practice it means that whenever the budget exhibits financial surplus the latter is saved in the fund, and vice versa, when budget is in deficit, it receives a financial injection from the fund. However, such funds do not encourage good fiscal discipline, as the flows in and out of the fund depend on the level of revenues rents


\textsuperscript{44} Jeffrey Davis et al. “Stabilization and Savings Funds for Nonrenewable Resources: Experience and Fiscal Policy Implications” in Fiscal Policy Formulation and Implementation in Oil-Producing Countries, Davis, Jeffrey; Ossowski, Rolando; Fedelino, Annalisa. (Eds.), (Washington, D.C., International Monetary Fund, 2003): p. 286-288.

collected.\textsuperscript{46} Hence, government can perceive the fund as an insurance for unfavorable times, lacking motivation to engage in better fiscal management.

\textsuperscript{46} Jeffrey Davis et al. “Stabilization and Savings Funds for Nonrenewable Resources: Experience and Fiscal Policy Implications” in Fiscal Policy Formulation and Implementation in Oil-Producing Countries, Davis, Jeffrey; Ossowski, Rolando; Fedelino, Annalisa. (Eds.), (Washington, D.C., International Monetary Fund, 2003): p. 286.
4. The Case Study of Kazakhstan

4.1 Overview

While previous Chapters focused on the theory of fiscal management of oil revenues in general with no geographical or chronological limitations, this case study applies the general theory of oil revenue management on the Republic of Kazakhstan in post-privatization period since 1997. Kazakhstan presents a specific example of a resource-abundant country due to its geopolitical, economic and historical specifics. Kazakhstan's oil industry commenced its development simultaneously with the process of state-building and transition from centrally planned to market-based economy. The interplay of these three processes is both unique and crucial determinant for understanding of Kazakhstan's industrial structure and development. In the second half of the 1990s the government was confronted with two enormous challenges of transforming country's economy to a free market economy, and managing an oil boom. The challenge was even more difficult taking into account that the government had no statecraft, administrative or any other institutional experience apart from the Soviet one. Furthermore, most of the highly skilled citizens, such as engineers, economists and doctors that were needed for the state-building, were of Russian origin. This wouldn't be an issue under normal circumstances; however, due to the process of “Kazakhization” that commenced in the 1990s and the transitional chaos of the 1990s, most of these people representing the nation's intelligentsia left the country. Hence, one more challenge came up for the new-born state, namely creating or finding adequate human resources for the country's development.

Kazakhstan is a country with a great economic potential. The population figure is comparable with that of the Netherlands, despite the fact that geographically it is the ninth largest country in the world. Kazakhstan's oil industry was largely underdeveloped under the Soviets, and the main large-scale development emerged after independence in the 1990s. Most of country's oil reserves are located in the western regions, on or off the shore of the Caspian Sea. According to Energy Information Administration data, the five largest onshore oil fields, Tengiz, Karachaganak, Aktobe, Mangistau and Uzen, account for about 50% of Kazakhstan’s overall
proven oil reserves estimated at 30 billion barrels, making it the second biggest oil producer in the CIS and tenth in the world. At the same time, Kazakhstan's two largest offshore fields, Kashagan and Kurmangazy, are estimated to contain about 14 billion barrels. All these fields combined produced about 1.54 million barrels per day as of 2009. For country's downstream needs, there are three major oil refineries in Kazakhstan: Pavlodar, Atyrau and Shymkent. According to EIA predictions full development of existing oil fields in Kazakhstan could make it one of the world’s top five energy producers. As of 2005, oil revenues make up for more than 30% of Kazakhstan's GDP and keep increasing. Additionally, oil exports account for about 60% of Kazakhstan’s total exports. Nevertheless, we have to keep in mind that these data can be slightly distorted due to the lack of transparency in Kazakhstan's energy sector and the potential manipulation with the statistics by government officials. Aside hydrocarbon wealth, there are enormous deposits of minerals, such as zinc, copper, uranium, chromium, and lead.

The chaos of the 1990s supported the emergence of informal political structures that persist till today and influence most decisions being taken in the Kazakhstan's energy sector through its informal links and pressure instruments.Privatization was more a battlefield over usurpation of power, with President Nursultan Nazarbayev becoming a winner when he consolidated the power under his and his family's personal control. The real effects of privatization the Kazakh way are best expressed in the country's budget balance, when in spite of an increase in exports from USD 3.2 billion in 1994 to USD 6.9 billion in 1997, the current account balance deteriorated from a surplus of USD 175 million to a deficit of USD 794 million over the same period, alongside with a significant accumulation of both the internal and the external debt. Moreover, in 1997 when the privatization was over and favorable prospects were ahead, Kazakhstan's economy was exposed to a series of external shocks, such as a sharp decline in

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world primary commodity prices, financial turmoil in emerging markets, the Russian financial crisis, and severe droughts in local agriculture.\(^{49}\)

Another aspect affecting economic development in the 1990s was the choice of exchange rate regime (ERR). As demonstrated on the example of the Dutch disease phenomenon, the exchange rate has a tremendous influence on the development of national economy, specifically in resource abundant countries. Kazakhstan's currency, Tenge, was introduced on November 15, 1993. As most of the newly established currencies in the CIS, in the early stages of existence it was exposed to hyperinflation that moderated over the years. The initial nominal exchange rate was set to Tenge 4.75 against the USD. Furthermore, in 1998 the country's GDP declined by 38.4\% in comparison to the level in the 1990.\(^{50}\) The decline was caused mainly by the external shocks described in the previous paragraph, and partially also by changes triggered during the privatization of state enterprises. In the second half of the 1990s National Bank of Kazakhstan (NBK) adopted a tight monetary policy which had rather detrimental effects on the international reserves recording only in between 1997 and 1999 a decline of 40\%, or USD 600 million. It was only after this loss as well as the overall degradation in the country's external competitiveness that Kazakhstan decided to abandon pegged exchange rate regime and adopt a freely floating exchange rate regime. The new foreign exchange regime was designed to sustain and increase country's exports and to prevent NBK from expensive efforts to maintain the foreign exchange rate of Tenge.\(^{51}\) The development of the exchange rate regime underwent several corrections in the 2000s. The increase in extraction of raw materials, primarily oil, led to an increase in exports and associated appreciation of national currency, hence making domestic goods less competitive on the foreign market (the first sign of Dutch disease discussed in Chapter 2). In order to maintain a moderate exchange rate regime, the oil fund for stabilization and saving was subsequently established. This helped sterilize a large part of revenues and consequently


\(^{50}\) Bilyasheva Malika; Bineau Yannick. “Kazakh Real Equilibrium Exchange Rate and Crawling Peg Policy: A Response to Global Instability?” (Faculty of Economics Lillel University, 2010): p. 10.

depreciate the currency to a more acceptable level. Most recently, as a result of 2007 mortgage market crisis that ended in a world financial crisis, the currency appreciated again. Consequently NBK decided to intervene in order to stabilize the currency and supported Tenge to the narrow band of +/-2% for Tenge 120 per USD. Overall, it appears Kazakhstan exhibits signs of Dutch disease and undergoes systemic difficulties typical of other oil rich countries, such as volatility and rent-seeking.

4.2 Oil Revenue Management: Actors in Kazakhstan

From a wider prospective, there appear to be three primary actors in Kazakhstan: IOCs, NOCs, and the government. However, in practice there are only two, namely the IOCs and the NOC fully managed by the government. This is a result of strong consolidation of power over NOC and overall national economy in the hands of President Nazarbayev. This section will be devoted to the operation of the NOC KazMunaiGaz and the government that controls it, excluding operations of IOCs in Kazakhstan that are identical with those described above in Chapter 3.

The Closed Joint-Stock company KazakhstanMunaiGaz was established on February 20, 2002, based on a presidential decree No. 811 through the merger of the National Oil and Gas Company KazakhOil and National Company KazTransGaz. On March 16, 2004, the company was renamed KazMunaiGaz. Formally, the goals of KMG included improvement of financial and economic management of the NOC, creation of a more comprehensive single body responsible for oil wealth management, and improvement of the Kazakhstan's oil sector reputation abroad. KMG is currently the third largest oil producer in Kazakhstan, and has at least a minority stake in virtually all the republic's major oil projects, and a mandatory controlling stake of 50% in all projects initiated in Kazakhstan after 2000. Overall, KMG

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54 Ibidem. p. 15.
became a super-monopoly with an annual turnover of USD 2 billion that has over 34 thousand of employees.\textsuperscript{55}

The outcomes of the assessment of KMG's performance can vary depending on the criteria used. In the assessment of financial income it is indeed successful, as it's the main recipient of direct tax income from JVs, PSAs and all taxes, bonuses, royalties, and fees in Kazakhstan. However, most of this income is thanks to the strategic ability of the government to make use of the world's recent macroeconomic trends. When assessing KMG by the criteria of declared goal fulfillment, the company does indicate positive figures mainly thanks to an enormous influx of foreign direct investment (FDI). However, when KMG is analyzed through the criteria of quality of management or transparency, the results are rather disappointing. KMG serves as a purely political tool to fulfill Kazakhstan's government interests. In this case, the term “government” is not a synonymous for “national”. On contrary, its actions are often in no way dictated by the needs of the Kazakhstan's population, but by the wishes of the republic's political elite ruled by President Nazarbayev. Nevertheless, same as other NOCs, KMG is obliged to fulfill many social services. For instance, the company provides discounts to local elderly, donates to charities and other projects/endeavors promoted by the government.\textsuperscript{56} However, these social projects are very fragmented and are not distributed according to priorities; hence their positive social impact is weakened.

4.3 Oil Revenue Management: Instruments in Kazakhstan

Kazakhstan has two basic options how to manage oil revenues. First, the indirect one, is management through more general and deeper fiscal discipline installments, such as medium-term policies aimed at balancing the budget rules, setting priorities for public spendings, and strengthening managerial qualities of government officials involved in fiscal management. Second is a more direct option of the creation of an oil fund responsible for a good use of oil revenues. The government issues medium-term fiscal frameworks for the revenue management.

Nevertheless, Kazakhstan's primary instrument for oil revenue management is the National Fund of the Republic of Kazakhstan (NFRK) described in detail in the section 4.3.1.

4.3.1 National Fund of the Republic of Kazakhstan

The NFRK was founded on August 23, 2000, by presidential decree No. 402 as a real oil fund accommodating both functions: stabilization and saving. The fund's design was largely inspired by the Norwegian Government Petroleum Fund. NFRK has a Management Council, formed by the president’s appointees. The governing administrative includes Kazakhstan’s President, prime minister, the heads of the two chambers of parliament, the National Bank chairman, and the finance minister. Officially, the fund is managed by the National Bank of Kazakhstan and is overseen by a governing board chaired by President Nazarbayev. In theory, the fund's operations are transparent, and its revenues, expenditures and the independent audit reports are released on a regular basis and made available to public. Furthermore, after consultations with IMF, in 2005 there was a decision to place 75% of all the fund's assets in foreign equities, with the remaining 25% contributing to the stabilization of government revenues. About 60% of its assets are saved in the US, and the remaining 40% is in European countries and Japan. Kazakhstan managed to save about 15% of its GDP in 2006 in the fund that equals most of its official cumulative budget surpluses, and even managed to pay back most of the external debts. The fund's accumulated capital stems from taxation (e.g. VAT and corporate tax), royalties, bonuses, and a share of revenues from the republic's PSAs and JVs.

As indicated above, the fund has two primary objectives. First is to improve Kazakhstan's economic performance by insulating it from the revenue volatility; and second is to ensure inter-

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generational equity. Moreover, there was a supplementary rationale for the creation of the fund that stems from a possible social and political pressure on government to spend the money on momentary needs and wishes. Prior to the establishment of the fund, large amounts of oil revenues were saved in off-shore bank accounts that were reportedly overseen by the Parliament and the Chamber of Accounts.\textsuperscript{62} However, such secretive revenue management was unsatisfactory and didn't comply with international standards. Thus, the creation of NFRK was a substantial step to increasing transparency in the revenue management.\textsuperscript{63}

In 2004 the fund has undergone improvements in rule-based operations. Fiscal payments from identified companies in the oil sector are subject to transfer to the NFRK. Previously, the rules for placing resources in the NFRK allowed the government to spend the assets in the fund in unfavorable economic times when prices were to fall below the reference level. Now it is conditioned by certain criteria, alongside annual limitations on expenditures. Another pragmatic implication that posed a problem with the previous model of functioning was a lack of rigorous definition of oil revenue and oil company. This flexibility left a loophole for various financial manipulations. Moreover, the fund used to save excess revenues also from non-petroleum sectors, such as metallurgy or mineral extraction industry. However, according to new rules all the revenues from central government will flow in the fund via state budget with no exception and the fund will not have other financial assets except those collected from hydrocarbons. Also, the fund was directly integrated in the state budget, so it could be in synch with the republic's overall fiscal policy. Several of these changes were enforced in 2006. Among them were the mid-term strategy with a formalized method for the balanced budged, expressed in the formula as follows:\textsuperscript{64}

\[ E = G(NO) + G(O) + D \]

\textsuperscript{63} Note, that although the transparency was increased it doesn't mean that the revenue management is now fully transparent.  
\textsuperscript{64} Yelena Kalyuzhnova. Economics of the Caspian Oil and Gas Wealth: Companies, Governments, Policies, (Hampshire, Palgrave Macmillan, Centre for Euro-Asian Studies, 208): p. 57.
where:

E stands for national budget expenditures,

G(NO) stands for non-oil sector,

G(O) stands for guaranteed transfer from the fund to the budget, based on the average volume of expenditures for budgetary development programs for a certain period of time, and

D stands for net public borrowing, for which the annual average value limit for a five-year period is set at the level of 1% of GDP for the respective year.

And

$$GO = A + bNFRK(t-1)e$$

where:

A stands for constant approved by law and set in Kazakhstan Tenge,

b stands for coefficient equal to the average level of investment income for a certain period,

NFRK(t-1) stands for assets of the NFRK as of the beginning of a financial year, and

e stands for the rate of Tenge against the reference currency of the fund.

Peter Lohmus and Anna Ter-Martirosyan argue that in the early stages of the functioning of the fund the “A” term, that represents a constant amount derived from optimal non-oil deficit in the short run, is expected to dominate the budget. In the long run, as the overall fiscal balance of the fund expands, this would result in a steady reduction of the non-oil sector deficit in relation to country's GDP. According to these authors, Kazakhstan can sustain non-oil deficits of over 6% in the short-run without reducing the value of oil wealth. The new rules should aid the design and enforcement of the republic's new medium-term budget strategy. Overall, after new changes were implemented, the design of the fund is consistent with international recommendations for effective macroeconomic management of oil revenues. As such, it is

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integrated in Kazakhstan's fiscal policy and is consistent with the country's overall macroeconomic objectives; it is a subject to annual external audit with its outcomes published in the annual Central Bank Balance Sheet, and subject to sound asset management rules.\textsuperscript{66}

In general, the assessment of any fund's performance is a vital indicator for future efficiency improvements. However, before discussing the funds efficiency and impact on Kazakhstan's economy, it is necessary to realize two things: fund is not a universal panacea and it cannot replace wise fiscal policy, although it can improve its functioning or supplement it in various areas. When looking at the achievements of Kazakhstan's economy and NFRK from a historical perspective, they're indeed laudable. Nevertheless, in a larger context there are still many insufficiencies. The fund has been criticized for the excessive control by the republic's President, rigidity of the rules for accumulation, lack of full public disclosure of its performance, and an insufficient of integration with the overall fiscal policy. More specifically, in 2003 IMF produced an assessment of Kazakhstan's fiscal policy against the standard IMF's Code of Good Practices on Fiscal Transparency. The report concluded that Kazakhstan had tremendously increased the transparency in many areas of the republic's fiscal policy; however the NFRK's transparency was still under question. The same assessment produced a few years later in 2007 concluded that NFRK achieved a progress in the areas of increasing transparency and removing managerial discrepancies. In particular, the report phrased the first audited report issued the same year under the Extractive Industries Transparency Initiative (EITI) and achievements in the coverage of public debt. However, International Budget Survey assessed Kazakhstan's budget in the Open Budget Index (OBI) is only 35% open, what equals to a classification of a minimally open budget. The OBI is based on the production of eight main policy documents: the Pre-Budget Statement, the Executive's Budget Proposal, the Citizens' Budget, the Enacted Budget, In-Year Reports, the Mid-Year Review, the Year-End Report, and the Audit Report. In Kazakhstan, only five out of these eight documents are being published. The government doesn't publish pre-budget statements, citizens' and mid-year review.

Furthermore, some of the five published documents fail to contain sufficient information to develop a comprehensive picture about the NFRK or budget in general. Finally, the OBI highlighted that in spite of existence of an adequate mechanism for national audit, it has only certain level of independence from the government as the audit body can be easily dismissed by the executive and is given only a limited autonomy in operational issues.\textsuperscript{67}

For the future considerations, there are three primary economic challenges for the fund: the appreciation of real exchange rate; fiscal and budget discipline; and economic stability. Current fund's performance in some of these areas can't yet be assessed objectively; others have already been partially addressed. Furthermore, there are social and political challenges, such as achievement of inter- and intra-generational equity and information availability to public. According to various surveys that are available, Kazakhstan's population is not well aware about the existence of the fund. A nationwide survey conducted in 2006 showed that 45% of respondents had no idea about the fund's existence.\textsuperscript{68} Hence, the lack of public pressure from both the citizens and the media doesn't encourage the fund to act transparently and in the interest of the country's majority. Additionally, there are inter-disciplinary challenges, such formulating more coherent agenda of the fund's goals, improvement of management, and efficiency.

4.4 Oil Revenue Management: Challenges and Issues in Kazakhstan

Kazakhstan faces set of challenges and issues when it comes to fiscal management of oil revenues. This section will highlight most crucial and controversial ones in place. The nature of such challenges can be categorized as either economic or political. Often, the two types of issues can overlap, as the line between economy and politics is thin. First part identifies economic challenges that include: overall fiscal policy; diversification; and tax regime improvement. Second part discusses the political challenges that include: political economy and regional


equity. These are not the only challenges facing the fiscal management in Kazakhstan today however; they're the most distinctive ones.

4.4.1 Economic Challenges

(i) Fiscal Policy

Country's long-term prosperity is largely determined by the ability to create effective fiscal policy. Most of the basic principles for good fiscal management of oil revenues are similar to those for good budget management in general. Maintaining a “healthy” fiscal policy and a budget discipline can be challenging in an oil-based economy that still undergoes transition from centrally-planned to market economy, has highly corrupt and non-transparent governance, and has sensitive geopolitical and social situation. Same as in most of the oil-rich countries, in Kazakhstan there is a conflict between maintaining a competitive exchange rate and leading an expansionary fiscal policy. There is no precise economic model that would calculate the equilibrium of the spending versus saving, as there are various social and political influences that impede exact calculations. Such balance between spending and saving is subjected to specific circumstances. As described in the previous Chapter, detrimental actions, such as temptation to engage into spending to satisfy current country's needs alongside with rent-seeking, appear when there is no effective fiscal policy in force.

First aspect of fiscal policy is the ability to create a realistic and well balanced budget. Kazakhstan's budget is a primary recipient of the oil revenues, either in form of tax and royalties, or in form of dividends from equity shares from PSAs. The state's budget faces two primary challenges: to maintain fiscal discipline and effective spending.

David I. Hoffman argues there are two distinctive tendencies in formation of the state budget in Kazakhstan: “...the rise in the quality and policy capacity of state cadres, and the growing emphasis within Kazakhstan's elite politics on redeploys resources regionally across the country's ethnically heterogeneous landscape.” Hoffman points out that both of these factors

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are the result of a unique configuration of elite ruling cliques in Kazakhstan's politics. The budget is overseen by a governmental body called Republic's Budget Committee that possesses real power over the budget formation and complies with international standards. The budget has undergone tremendous changes and improvements over the twenty years of its existence. Nevertheless it still suffers from a lack of effective treasury framework and tools for imposition of fiscal discipline.\(^7\)

Additionally, several considerations have been identified as crucial for effective fiscal policy by the Country's Economic Memorandum issued in 2005 by the World Bank (WB). First is maintaining positive saving by the state budget. The Kazakhstan's budget remains in surplus since 2001; hence this issue is successfully resolved. Second is an issue of net saving. Despite the fact that the budget is in surplus, the public sector as a whole might not be. Taking into account that Development Bank, Mortgage Corporation, and various SOEs have increased borrowing, the overall public sector could be running in deficits. Third is the quality of public spending and associated link between spending and revenue fall. This issue is crucial for long-term economic development. Finally, an importance of setting priority areas is a function of the quality of spending. There has to be coherent strategy at a national level that prevents spending from getting chaotic and not distributed according to priorities.\(^7\)

(ii) Economic Diversification

Assuming that Dutch disease is a real danger for Kazakhstan’s economy, there is a need to diversify the economy in order to avoid its detrimental effects. As examined in the Chapter 2., the disease appears when oil prices are high and more investments are poured in the oil sector. This attracts more labor to the sector, which in turn increases the production output of the oil industry. The financial profit from high productivity of the oil industry, stemming from export sales of crude oil, taxes applicable to subsurface users, taxation of business profits, indirect taxation, and other forms of taxes, lead to a dramatic increase of revenues from the oil and gas


sector.\textsuperscript{72} The revenues cause the appreciation of national currency which increases the exchange rate. This results in a loss of competitiveness of the country’s manufactured goods, leading to a decrease in exports and increase in imports in non-oil sectors. The damage of the economic growth caused by fading non-oil manufacturing is a symptom of long-term Dutch disease. Nevertheless, in the short-run, even under maintenance of non-oil related manufacturing, economic fluctuations might remain strong due to fluctuations in the price of oil, simply because of swings in oil-related activities.\textsuperscript{73} The most direct way to address this issue is to diversify country's economy.

In Kazakhstan the overall bad governance of oil revenues is aggravated OR exaggerated by ill-defined property rights, missing or malfunctioning markets, and loose legal system. In this layout the dependency on oil as a prime income source for the republic’s budget can lead to a scenario where the natural resources begin to run out, or if there is a downturn in prices, the lack of diversification would cause severe budget deficits. There are several steps taken towards an achievement of diversification in Kazakhstan, among others the establishment of the Kazyna Sustainable Development Fund in 2008. Kazyna is an umbrella organization that promotes sustainable development in Kazakhstan and allocates funding for innovative projects in various sectors.\textsuperscript{74} Nevertheless, since entrepreneurship is strongly hampered by ineffective administration and various direct and indirect barriers for the development of small and medium enterprises (SMEs), oil and gas sector is still the primary source of finances for state budget.

(iii) Tax Regime

In general the oil revenue windfalls cause the government to be more reluctant towards taxing its citizens. The reluctance is based on the fact that government has more freedom in managing the oil rents without taking into account the needs of the citizens, who in return have low

\textsuperscript{72} Boris Najman; Richard Pomfret; Gael Raballand; Sourdin, Patricia. “How are Oil Revenues redistributed in an Oil Economy? The case of Kazakhstan” School of Economics Working Paper 2005-18, University of Adelaide, School of Economics (19 June 2005): p. 5.


expectations from government's accountability as they're paying no taxes. In Kazakhstan this occurrence is combined with a weak and corrupt institutional framework carried over from the former Soviet Union as well as still incubating modern economic structure. Therefore, it is not surprising that no matter if calculated as a percentage of GDP or by the share of planned taxes actually remitted to the budget, Kazakhstan's overall tax collection mechanism is feeble. Improving tax regime would have positive results not only for the fiscal management of oil revenues in the country, but also for the overall national fiscal policy and the national economy.

David I. Hoffman identifies three key issues to be considered when assessing the effectiveness of the tax regime. As a first he mentions the quality of tax administration. There is a distinctive disorganization and a lack of effective communication between the capital and the regional administrative bodies that are responsible for particular aspects of a tax collection process. The 1995 to 1998 reform created the Ministry of State Revenues (MSR) and hence united the three previous organs responsible for the tax collection: Tax Committee, Tax Police, and Custom Committee. The MSR is fully responsible for administering the taxes prescribed by the Ministry of Finance. However, Kazakhstan's tax administering bodies are still lagging far behind OECD standards in terms of managerial qualities, transparency, and efficiency.

Second are transparency, universality and enforceability of the tax regime. In general the optimal tax level must represent equilibrium between the desire to maximize governmental revenues and the taxpayers’ willingness to pay. The occurrence of tax avoidance and chronic wage arrears are common in Kazakhstan. Furthermore, there is a complex system of accumulative and constantly increasing penalties for not evading taxes that acts as a discouragement for the tax payers. In such circumstances a taxpayer who was indebted by for instance 2000 Tenge to the government, would have to pay five to ten times more as a penalty. In this scenario, most of tax payers give up trying to pay tax debts considering it less profitable than continuing avoiding them. Since there is no functioning mechanism of enforceability, citizens fall into a vicious circle of tax debts. Furthermore, general corruption, various tax amnesties issued and lack of effective cooperation between central and regional tax offices pose
a serious obstacle to the universality of taxing regime. Lastly, as for transparency, Kazakhstan hasn't reached the necessary level of good governance and development to assure transparency of operations related to tax collection.

Third factor in effective tax regime determination is a progress in developing extractive capacity at a “planning level”. The taxes are playing a useful role as an information channel for the state. Hence, a properly formulated tax regime would serve not only as a mechanism to extract resources but also as a useful feedback mechanism for the governmental planning agencies (in other words, agencies that are themselves capable of interpreting the information contained therein). Such data represent a valuable asset in most of the developed countries, where they're used for statistical, political and various other purposes.75

In general, the Kazakhstan's new Tax Code is considered to be one of the best in the FSU. However, there isn't much of a competition within the countries of former USSR. Hence, there is still a lot of room to improve left. Alongside addressing the three Hoffman's effective tax regime determinants analyzed above, there is also an issue of de-politicizing the tax regime that should be addressed.

4.4.2 Political Challenges

(i) Political Economy

Many political decisions need to be enforced to yield economic benefits and remove obstacles to sustainable growth. The political decisions aimed at boosting economy should address two primary goals: slowing the appreciation of national currency and boosting the competitiveness of the country’s manufacturing sector. Sterilization of the oil revenues to avoid spending effect, waste of oil rents, and corruption, is the way to achieve these goals. The easiest way to sterilize money is to create an external fund where extra revenues are accumulated and saved for future generations and for possible investments in non-oil sector. In the case of Kazakhstan it would be the National Fund established in 2001 following the Norwegian Government Petroleum Fund

However, in the case of developing countries, sterilization can be politically challenging, mainly due to public pressure to spend the resources for poverty reduction while at the same time ignoring the long-term implications. Educational media campaign explaining in greater detail the aims and functioning of the Fund and its benefits can remove the pressures and contribute to the long-term growth. Along with that, the government should increase savings and decrease the national debt. The accumulated government savings can be used for the initial development of non-oil economy in the future.

In general, government should play a role of supervisor in the economy, but not an ultimate leader or director. Government should strive to remove political and legal barriers to economic growth (such as boost SMEs, reduce excessive bureaucracy, strengthen the tax regime), but it shouldn't dictate the directions of business development. This pattern is unfeasible in Kazakhstan's conditions where president is in control of most of the aspects of the economy and any “free market” exists only to the extent to which it is favorable to the ruling elite.

(ii) Regional Equity

Any kinds of natural resources are inherently connected to the geographic area where they are situated (in contrast to products of human activity, such as manufacturing goods, which are more flexible when it comes to the location of their formation). The location of natural resources can have remarkable impact on the country’s political and social development.

Although Kazakhstan is a unitary state with fourteen regions headed by governors (akims) appointed by the president, the vast size of the country and distance of certain regions from the center allows some akims to possess a high level of freedom when making political decisions. In the oil sector this is exhibited in a control of subregional authorities over the licenses and local taxes. The foreign oil companies are required to communicate with central government only, and the bonuses, royalties and other payments go to the central budget. However, the FDI flow

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can be split, with some ancillary bonuses staying in the region.\(^77\) As highlighted in the overview, the oil rich regions are located in the western regions of Kazakhstan; e.g. on the opposite side of the country than political centers of Almaty and Astana. According to Le Billon's theory (see Chapter 3.) such preconditions could lead a detachment of the oil-rich regions from the central authority or a quest for larger autonomy. Nevertheless, such tendencies haven't yet been exhibited in a profound manner due to the specific geopolitical and demographic conditions of Kazakhstan. For instance, independence in 1991 triggered the process of national identity formation that was endangered by an inherited demographic situation, when almost half of its population was of non-Kazakh origin. Nevertheless, these geopolitical preconditions could become a focal point in future. Hence, achieving regional equity through effective revenue management (in this case, regional redistribution of oil rents) is of a key political significance.

Redistribution of oil revenues goes through three channels: official public redistribution, unofficial public redistribution, and company redistribution. Official redistribution includes taxes and revenues from oil production shared locally as well as financial transfers from the center. Company redistribution includes direct, indirect and induced revenues that oil companies invest or spend locally. However, since oil industry is capital intensive, not labor intensive, such redistribution has its limitations within the oil industry. Lastly, unofficial redistribution can be either a result of unregistered household activity (increased demand for services in the oil region lead to local household small business boost), or of informal leakage of oil revenues to the economy (bribes, payments used for individual purposes).\(^78\) None of these channels achieved redistribution, which would ensure fair regional economic development. For instance, in spite of its importance for Kazakhstan’s economy, the old oil-producing region Mangghystaou sees almost 40% of its population lie below the poverty line, this figure being the worst among all of Kazakhstan’s regions. Mangghystaou region has even higher poverty headcount than Jambyl region, which records the lowest regional product per capita. Contrary, poverty in Astana and


Almaty represent between 2 to 4.5% of the respective city’s population only. Moreover, there is a discrepancy between urban and rural areas within the oil-producing regions. The main town in Mangghystaou region, the port of Aqtau, has a poverty headcount of 18%, while the regional average reaches 40%.\textsuperscript{79} Deriving from that, a presence of an oil field in a region is no guarantee for a poverty reduction.

\textsuperscript{79} Ibidem. p.12.
5. Conclusion

This study demonstrated the vital importance and influence of oil revenue management on country's economic performance and growth. The study looked at separate elements involved in oil rents management, such as actors (government, institutions, and companies) and instruments (stabilization, saving, or financial funds), and examined their role in overall performance of fiscal management. Moreover, this thesis discusses that oil abundant countries have to pay extensive attention to the correct formulation and implementation of fiscal management to avoid the resource curse. The phenomenon of resource curse can be widely found around the world in countries that are abundant with natural resources, however its discovery and development does not lead to improved economic conditions, but paradoxically, to overall depleted economic, political, and social conditions. There are three primary schools of thoughts that explain the occurrence of the phenomenon. First one identifies rent-seeking as a key to depleted economic conditions. The concept of rent-seeking lies in behaviour of actors, such as companies or individuals, that use its power to obtain financial profit through manipulation and power abuse without reciprocating any benefits back to the society, focusing on possession of existing wealth rather than in wealth maximization. Second school blames price volatility for resource curse that is predetermined by the low elasticity of supply and demand of oil. Finally, third school explores the phenomenon of Dutch disease as an explanation behind economic downfall associated with natural resource discovery. However, since resource curse appears in numerous countries that have different legal, political, economic, and social circumstances, it is impossible to find one universal interpretation of its occurrence and causes. Hence, countries affected by resource curse should be studied individually and country-specific socio-economic circumstances have to be taken into account.

Various instruments were designed to address the issues associated with oil windfalls and avoid resource curse. The instruments can be categorized in two groups. First group is represented by oil funds that focus on oil revenue stabilization, saving, general financing, or on a combination of some or all of these elements. Although oil fund establishment is frequently used to balance the national economy, it is not inevitable. Similar macroeconomic effects can be achieved by an
implementation of sound fiscal policy and wise governance that form second group of fiscal instruments. Implementation of such fiscal policy and a practice of good governance can be accomplished by central or regional governmental authorities, or by one of its bodies, such as an NOC. In general, fiscal management of an oil boom is a complex matter that requires a lot of experience in statecraft and macroeconomic policy management.

To demonstrate how country-specific circumstances can influence formation and performance of oil revenue management the case study of Kazakhstan was presented in Chapter 4. In Kazakhstan, the already difficult task of revenue management is further complicated by other factors. First, oil boom management took place simultaneously with a process of state-building and transition from Soviet command model to free market economy. Second, there were other demographic, political, and historical issues complicating the task.

The challenges facing Kazakhstan’s economy today have either political or economic nature. On one hand challenges of economic nature include a need for vast improvement of tax regime, strengthening of the country’s overall fiscal policy, and progress in achieving economic diversification. On the other hand, political challenges aim at overall support of Kazakhstan’s political economy, achievement of inter- and intra-generational equity, and design of efficient regional revenue distribution pattern that would ensure that no political or social conflicts arise based on the struggle over oil rents. Overall, Kazakhstan presents a specific and unique example of a resource abundant country that despite many challenges and issues managed to achieve tremendous progress in fiscal management since the end of privatization in 1997 till present; however there are still many loopholes and a lot of room to improve.
Bibliography


Bilyasheva Malika; Bineau Yannick. “Kazakh Real Equilibrium Exchange Rate and Crowling Peg Policy: A Response to Global Instability?” (Faculty of Economics Lillel University, 2010).


Brauer, Birgit, “Kazakhstan's Economic Challenges: How to Manage the Oil Boom?”, Transition Studies Review 14/1; 188-194 (Springer-Verlag 2007).


Davis, Jeffrey; Ossowski, Rolando; Fedelino, Annalisa. (Eds.).Fiscal Policy Formulation and Implementation in Oil Producing Countries. (Washington, D.C., International Monetary Fund, 2003).


Kalyuzhnova, Yelena, Economics of the Caspian Oil and Gas Wealth: Companies, Governments, Policies (Hampshire, Palgrave Macmillan, Centre for Euro-Asian Studies, 2008).


Ostrowski, Wojciech, Politics and Oil in Kazakhstan (Routledge, Taylor & Francis Group, 2009).


Other Sources:


