FISCAL DIMENSION OF OIL SECTORS IN THE POST-SOVIET CASPIAN COUNTRIES: A NEW INSTITUTIONALIST APPROACH

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ABSTRACT

FISCAL DIMENSION OF OIL SECTORS
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A NEW INSTITUTIONALIST APPROACH

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The oil sector has a risky nature. Today, the main investors are increasingly more National Oil Companies; but captivation of private investors, either foreign or domestic, has playing a vital role. Investors evaluate their upstream projects' profitability based not only on neoclassic macroeconomic analysis; but also the country's institutional development.

The Post-Soviet oil producing Caspian countries, which were kept closed under the Soviet rule for 69 years, have been living a transition period. After the dissolution in 1991, all of them had the challenge to build their own institutional structures. Economic dependency type of system, established by the Soviet Union, was the hardest challenge these newly formed oil-abundant countries have faced. Although these countries have the same legacy of central planning and Soviet governance in their oil sectors, the fiscal regimes and property rights have been diversified during the last two decades. Although the resource curse literature accept the deteriorating side of the oil wealth on economic development of these countries; New Institutional Economics literature takes the institutions in the center of its analysis.

The thesis examines the development of the two main formal institutions in Post-Soviet Caspian countries; the property rights and the fiscal regimes, within a New Institutional Economics framework. After an introductory chapter, second chapter describes the theory of NIE approach in general and towards the Post-Soviet transition economies. From the third chapter to the sixth chapter the formal institutions of the Post-Soviet Caspian countries are analysed one-by-one. Finally, in the concluding chapter, the comparative findings are presented.

Key words: New Insitutional Economics, Oil, Russia, Kazakhstan, Azerbaijan

ÖZ

SOVYET SONRASI HAZAR ÜLKELERİNİN PETROL SEKTÖRLERİNİN MALİ ANALİZİ: YENİ KURUMSALCI YAKLAŞIM

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Aralık 2014, 94 sayfa

Petrol sektörü riskli bir yapıya sahiptir. Bugün sektördeki ana yatırımcılar her ne kadar milli petrol şirketleri olsa da, yerli ya da yabancı özel yatırımın da sektöre çekilmesi çok büyük önem arz etmektedir. Yatırımcılar arama projelerinin karlılığını, sadece neoklasik makroekonomik analizlerle değil, aynı zamanda o ülkenin kurumsal gelişimini inceleyerek değerlendirirler.

Altmış dokuz yıl Sovyetler Birliği yönetimi altında kapalı kalmış olan Sovyet sonrası petrol üreten Hazar ülkeleri, bir geçiş dönemi yaşamaktadırlar. Birliğin 1991 yılında dağılmasından sonra, bu ülkeler kendi kurumsal yapılarını inşa etme zorluğu ile karşı karşıya kalmışlardır. Sovyetler Birliğince ekonomik bağımlılık esasında kurulmuş olan sistemin değiştirilmesi, bu yeni kurulmış petrol zengini ülkelerin yaşadığı en büyük zorluk olmuştur. Petrol sektöründe aynı Sovyet merkezi planlama sistemi ve yönetim modeli miras kalmış olmasına rağmen, bu ülkeler son yirmi yılda mali rejimleri ve mülkiyet hakları bakımından oldukça farklılaşmıştır. Kaynak laneti literatürü, petrol zenginliğinin ülkelerin ekonomik gelişimini azalttığını kabul edip, analizlerine kurumları dahil etmese de, Yeni Kurumsal İktisat ("YKI") literatürü kurumları analizinin merkezine oturtmuştur.

Bu tezde Sovyetler Birliği sonrası Hazar ülkelerinin petrol sektöründeki gelişimleri, iki ana formel kurum olan mülkiyet hakları ve mali rejimleri ekseninde ve Yeni Kurumsal Ekonomi yaklaşımı çerçevesinde değerlendirilmektedir. Genel bir giriş bölümünden sonra, ikinci bölümde YKİ teorisinin genel yaklaşımları ve Sovyet sonrası geçiş ekonomileri özelindeki yaklaşımlar incelenmektedir. Üçüncü bölümden altıncı bölüme, bu ülkelerin kurumsal gelişimi tek tek değerlendirilmektedir. Sonuç bölümünde, tezin bulguları karşılaştırmalı olarak sunulmaktadır.

Anahtar Kelimeler: Yeni Kurumsal İktisat, Petrol, Rusya, Kazakistan, Azerbaycan.

To My Beloved Husband, Children, Parents and Friends

To My Company TPAO

To All Children

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Bcma	Billion cubic meters per annum
Bbl	Barrel
Bbl/d	Barrel per day
BP	British Petroleum
IEA	International Energy Agency
EIA	Energy Information Agency
E&P	Exploration and Production Sector
FDI	Foreign Direct Investment
IOC	International Oil Company (Major Companies)
JV	Joint Venture
NIE	New Institutional Economics
NOC	National Oil Company
PSA	Production Sharing Agreements
PSC	Production Sharing Contracts
RSC	Risk Service Contract
TC	Transaction Costs
Tcm	trillion cubic meter
VIC	Vertically Integrated Companies
USGS	United States Geological Survey

INTRODUCTION

"If the misery of the poor be caused not by the laws of nature, but by our institutions, great is our sin."

Charles Darwin

The sustainable economic development is closely linked to the well-functioning qualified institutions. The institutions in the oil sector is especially important, because of the nature of this sector, which requires huge amount of investments, human resources and technical knowledge for a long period of time. In the literature, the role of the oil wealth in the economic development is arguable. Having oil resources initially evaluated positively for the well-being of an economy; on the contrary after 1970s, the word "oil" had become a synonym of "curse". The resource curse literature has been rich to produce many different articles; not focusing on formal institutions, but taking the macroeconomic figures in the center of their analysis. However, new approaches emerged as New Institutional Economics ("NIE").

After the dissolution of Soviet Union, many oil-rich countries around the Caspian Sea were established as independent republics and many scholars got excited to analyse the new region. Since the independent oil-rich Caspian countries had the common Soviet institutional and economic structure, the analysis focusing on whether there have been continuities or not, created a topic of curiosity. My thesis aims to analyse the institutional development in the Post-Soviet Caspian countries comparatively and tries to explain how the institutional environment affect the sectoral investments and the oil output of each country. For this purpose, property rights ("ownership structure" interchangeably) and fiscal regime are taken as the two main formal institutions within a NIE framework.

The requisite for the analysis is to understand the characteristics of oil industry and current sectoral developments as well. The first characteristic of the oil industry is the level of uncertainty it posseses, because of the risky upstream segment. The upstream oil business, which is also known as the exploration and production (E&P) sector; contains activities like exploration, recovery and production of crude oil and/or natural gas. White and Angulo explains oil industry as "the industry characterised by two factors since its inception: an extraordinary high degree of risk and a constant hunger for capital"[1]. In Figure 1, the risk and return levels of the whole oil value-chain is indicated. Although the risk level is high, there is a chance to get higher returns from such investment. An upstream oil company, in line with its long-term vision and risk appetite, would set its strategic goals, define the area of growth and after performing feasibility studies not only in technical but also in political and economic terms, capture the right projects.

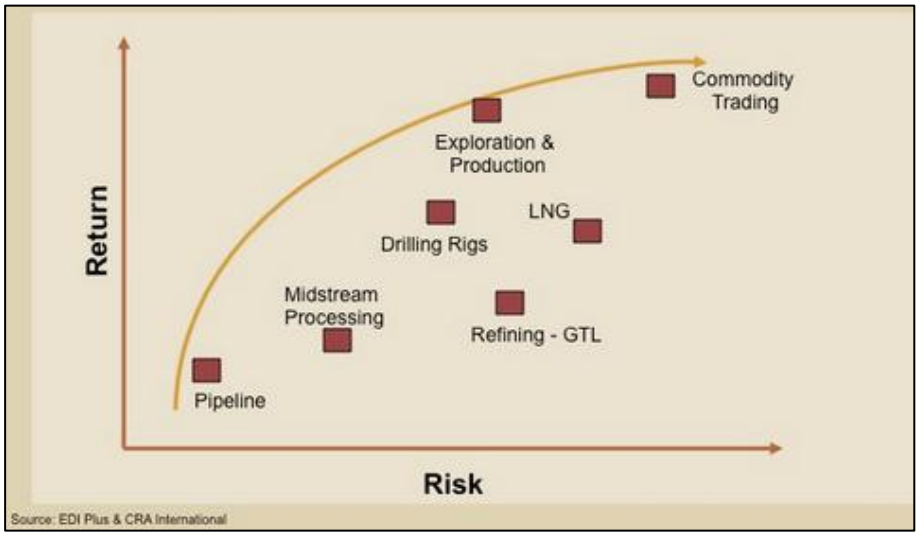

Figure 1. Illustrative Risk-Return Investment Profile

Source: EKT Interactive. (2014) "Managing Risk in Oil and Gas". Accessed on 20 June 2014. <http://www.ektinteractive.com/introduction-oil-gas/business-processes-risk-management/>.

[1] Norman A. White and Albert W. Angulo et. al. (1978) *Financing the International Petroleum Industry*. Chatham: Graham & Trotman Ltd. p.16.

The second characteristic of the oil sector is its being project-based, phased business model. The very first phase of exploring oil is to gain access to the hydrocarbon reserves, which could be either by bidding in an open licensing round, or by direct negotiations with the host country national oil companies ("NOCs") or by mergers and acquisitions.[2] Bain and Company 2012 report underlines that "in 1970s the NOCs controlled less than 10 percent of the world's oil and gas reserves; today, they control more than 90 percent".[3] During these forty years, while NOC's not only increased their bargaining power and core competencies; but also their abilities; while international oil companies ("IOCs") had faced with challenges. Moreover in the report of Bain, it says that "since 2006 oil production by the supermajors has decreased by 2 percent".[4]

The second phase of oil business is exploration, meaning field works, gravity-magnetic surveys, shooting 2-dimensional and 3-dimensional seismic lines, interpretation of these lines and drilling an exploration well which hopefully brings oil or gas. The third phase is appraisal; meaning to make further analysis for reservoir optimisation, carrying out appraisal drillings and gathering more data for feasibility study.

[2] Jahn, F., Cook, M., & Graham, M. (2008) *Hydrocarbon Exploration & Production*. 2nd Edition. Oxford: Elsevier B.V. p.1.

[3] Bain & Company (2012) "National oil companies reshape the playing field". Accessed on 2 April 2014. < http://www.bain.com/publications/articles/national-oil-companies-reshape-the-playing-field.aspx >. p.1.

[4] Bain & Company, *(2012) "National oil companies reshape the playing field".* Accessed on 2 April 2014. <http://www.bain.com/publications/articles/national-oil-companies-reshape-the-playing-field.aspx>. p.2.

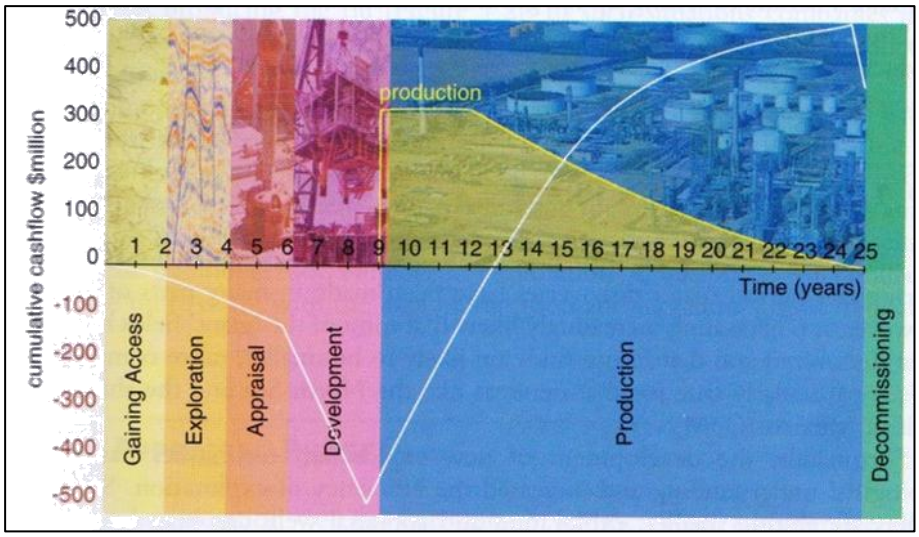

Figure 2.The field life cycle and typical cumulative cash flows

Source: Jahn, F., Cook, M., and Graham, M, (2008) *Hydrocarbon Exploration & Production*. 2nd Edition. Oxford: Elsevier B.V.p.1.

The fourth phase is development, it is not generally enough to find oil but its commerciality or profitability is another process of evaluation. If the commerciality is declared, development phase begins with the approval of field development plan. Development covers the project planning, procurement of the materials of construction, drilling more wells, building facilities for processing, storage and trasportation. The bulk amount of costs in the project (maximum cash out) is incurred in the development phase (See Figure 2). After the development phase comes the production phase, which is mainly an operating phase and begins with the first oil produced from the wellhead. The last phase is decommissioning defined generally as removing the equipments in the oil well site. If the production continues in this phase, the investors lose money; because of the income's not covering the royalty, payable to host country governments, plus operational expenses.

Another major chracteristic of an oil project is its being a long-term project; it takes at least three years to explore, five to seven years to develop and twenty years to produce oil from a field. In such a long business life cycle, there are many external factors affecting the investments. First of them is the global oil prices. The volatility of the oil prices historically is presented in Figure 3 from IHS Energy database. Increasing oil prices create uncertainty not only on the current/future production

costs; but also on the current/future sales prices. The general oil price level in 1991s was averagely 20$/bbl, however it has been increased nearly five times in 2008s. In such a volatile price environment, with huge investments and challenging operations, the possibility of financial loss make oil companies jointly invest.

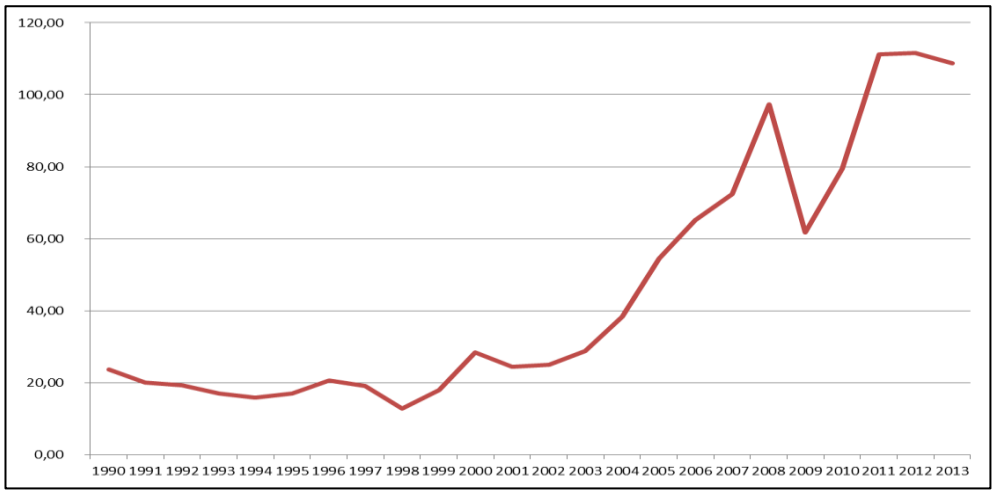

Figure 3. Brent Oil Prices (Nominal $/bbl) FOB North Sea.

Source: IHS Energy. "Outlook for Global Oil Prices and Refining Margins, June 2014".(2014). Accessed on 20 June 2014, <http://www.ihs.com/index.aspx>.

Second external factor affecting the oil investments is the changes of host countries' political- fiscal regimes. This risk is trying to be handled mainly through agreements ("contracts" interchangeably) which have been, as a whole, forming the host countries' fiscal regime. From the host countries perspective, each government decides, as Bindemann states, the general ownership structure of their natural resources; "whether resources can be privately owned or whether they are state property and if they remain state-owned... the development can be conducted by a state company or it can be contracted to a private firm".[5] The authorities in the host countries, prefer to incur such losses to foreign companies where Stevens defines a foreign company as "a company which is incorporated outside the host country and is owned and controlled by an owner or owners who are not nationals of the host

[5] Kristen Bindemann, (October 1999) "Production-Sharing Agreements: An Economic Analysis". *Oxford Institute for Energy Studies*. WPM 25. Accessed on 4 August 2014.<http://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/WPM25-ProductionSharingAgreementsAnEconomicAnalysis-KBindemann-1999.pdf>. p.5.

country".[6] There are many different forms of contracts in the E&P sector but the most common four forms are: production sharing agreements ("PSAs"), concession contracts ("Royalty/Tax"), risk service contracts ("RSCs") and joint ventures ("JVs").[7] If we analyse them briefly, starting from PSAs, Bindemann defines PSA as;

> Under a PSA the state as the owner of mineral resources engages a foreign oil company (FOC) as a contractor to provide technical and financial services for exploration and development operations. The state is traditionally represented by the government or one of its agencies such as the national oil company.[8]

He also states the role of NOC as one of the contractor, which is also a representative of government in these contracts. Under PSAs, the contractor take the risks of the initial phases until a commercial discovery. If there is no discovery, the contractor bears all the costs related to the contract area. If there is a discovery, with the begining of the production phase, contractor began to get its costs back from the oil revenues. Another important feature of PSA is that it provides investors with protection against changes in domestic legal and fiscal legislations.

The second and the oldest form of oil contracts are concession agreements (this agreements are adopted under Royalty- Tax Fiscal System). IOCs act concession agreements with the landowners who have the title of all resources in the host country; where the state has the ownership generally. If an IOC finds oil in the pre-defined area, it owns this oil. The host country acquires only the royalty and taxes from the produced oil. Johnston mentions that there were only royalty payments in simple concession agreements, but once governments had gained more bargaining power, many different forms of taxes have been added over the years.[9]

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[6] Stevens. Dr. P. J. *(1976) Joint Ventures in Middle East Oil 1957-1975*. ix Middle East Economic Consultants. London. p.5.

[7] Marin, D.C. (August 2013) "Inefficiencies and Bargaining in National Oil Companies and International Oil Companies Cooperation". *Oil Gas & Energy Law.* Volume 11. Issue 4.p.3.

[8] Kristen Bindemann, (October 1999)) "Production-Sharing Agreements: An Economic Analysis". *Oxford Institute for Energy Studies*. WPM 25. Accessed on 6 August 2014. "http://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/WPM25-ProductionSharingAgreementsAnEconomicAnalysis-KBindemann-1999.pdf >. p.1.

[9] Daniel Johnston, (1994) *International Petroleum Fiscal Systems and Production Sharing Contracts*. Oklahoma: PennWell Publishing Company. p. 29.

The third form of contracting is the risk service contracts; where the host country is the owner of the resources. An IOC supplies services and know-how to the host country along the whole phases of oil sector and the host country in return agreed on to pay a fixed, pre-determined fee as a share of the profit. This type of contracts are common for the countries who have a developed oil sector with well-analysed, geological data; like Iraq. Ghandi and Lin argue that some countries adopted service contracts because of five reasons; "field ownership rights, produced crude ownership rights, field's operatorship, international oil companies' compensation mechanism and risk aversion of the state-owned oil companies".[10] As fourth type, joint ventures are less commonly used forms of agreements. There can be many different types of joint ventures; the state through its NOC enters into a partnership with many companies. Whatever contract the foreign company signs with the host country, the political risks on the companies always remain. One example is the risk of regime change in a country, like the breakup of Soviet Union.

Other than the external factors affecting the oil investments, the sector itself has been changing. In contrast to the general acception of the peak oil theory of M. King Hubbert[11]; the proved oil reserves[12] globally increased nearly 115 billion bbl up from 2012; to 1.6 trillion bbl as of January 1st of 2013 according to Oil and Gas Journal[13] and it underlines that the global average oil supply ("production" interchangeably) reached at 75.7 million bbl/d in 2012, up 2.9 percent from the average 2011

[10] Abbas Ghandi and C.Y. Cynthia Lin, (2014) Oil and Gas Service Contracts Around the World: A Review. *Energy Strategy Reviews.* 3. p.22.

[11] M. King Hubbert. (1956) "Nuclear Energy and the Fossil Fuels". Publication No. 95. Shell Development Company. Accessed on 25 November 2014. <http://www.hubbertpeak.com/hubbert/1956/1956.pdf>.

[12] There are many methods of resource/ reserve calculations in the oil sector. I assume and use the IEA approach "Resources are those volumes that have yet to be fully characterised, or that present technical difficulties or are costly to extract. Reserves are those volumes that are expected to be produced economically using today's technology; they are often associated with a project that is already well-defined or ongoing." from the book of International Energy Agency (2013) *Resources to Reserves 2013 Oil, Gas and Coal Technologies for the Energy Markets of the Future*. OECD/IEA Publish. p.17.

[13] Oil & Gas Journal (2012) "*Global Oil Production up in 2012 as reserves estimates rise again*" Accessed on 12 March 2012. <http://www.ogj.com/articles/print/vol-110/issue-12/special-report-worldwide-report /global-oil-production-up-in-2012-as.html>.

production volumes. With the discovery of unconventional resources, more volumes of hydrocarbon resources are added up to the global reserve classifications.

According to BP Statistical Review of World Energy 2014 database, the top supplier of oil in the World and in the Caspian was Russian Federation with 10.6 million bbl/d average in 2012.[14] The other Caspian oil suppliers have been Kazakhstan, Azerbaijan and Turkmenistan as shown detailed in Table 1 and Table 2. Although Iran is one of the Caspian countries, in the scope of this thesis it is neglected.

Table 1. Estimated Proved Reserves and Oil Production by Eastern Europe and FSU Countries

	ESTIMATED PROVED RESERVES				OIL PRODUCTION			
	Jan. 1, 2013		Jan. 1, 2012					
COUNTRY	Oil (1,000 bbl)	Gas (bcf)	Oil (1,000 bbl)	Gas (bcf)	Producing oil wells* Dec. 31, 2011	Estimated 2012 (1,000 b/d)	Change from 2011 (%)	Actual 2011 (1,000 b/d)
EASTERN EUROPE and FSU								
Albania	172,400	30	199,140	30	669	17.2	11.7	15.4
Azerbaijan	7,000,000	35,000	7,000,000	30,000	62	861.3	–4.7	903.3
Belarus	198,000	100	198,000	100	—	11.4	–62.1	30.0
Bulgaria	15,000	200	15,000	200	281	1.0	—	1.0
Croatia	71,000	880	71,000	880	690	11.4	–5.2	12.0
Czech Republic	15,000	140	15,000	140	—	2.9	–7.3	3.1
Georgia	35,000	300	35,000	300	283	1.0	—	1.0
Hungary	27,321	286	31,722	283	875	14.1	–0.2	14.1
Kazakhstan	30,000,000	85,000	30,000,000	85,000	1,256	1,559.5	–2.7	1,602.1
Kyrgyzstan	40,000	200	40,000	200	—	1.3	30.0	1.0
Lithuania	12,000	—	12,000	—	—	2.1	5.0	2.0
Poland	156,520	3,249	155,000	3,355	512	13.5	8.0	12.5
Romania	600,000	3,725	600,000	2,225	6,000	83.0	–1.4	84.2
Russia	80,000,000	1,688,228	60,000,000	1,680,000	107,476	10,450.0	1.2	10,330.0
Serbia	77,500	1,700	77,500	1,700	646	15.4	2.7	15.0
Slovakia	9,000	500	9,000	500	—	—	—	—
Tajikistan	12,000	200	12,000	200	—	—	—	—
Turkmenistan	600,000	265,000	600,000	265,000	2,515	215.4	9.5	196.7
Ukraine	395,000	39,000	395,000	39,000	2,494	50.0	3.5	48.3
Uzbekistan	594,000	65,000	594,000	65,000	2,190	70.0	16.7	60.0
Total Eastern Europe and FSU	120,029,741	2,188,738	100,059,362	2,174,113	125,949	13,380.4	0.4	13,331.7

Source: Oil & Gas Journal (2012) "Global Oil Production up in 2012 as reserves estimates rise again" Accessed on 12 March 2012, http://www.ogj.com/articles/print/vol-110/issue-12/special-report-worldwide-report /global-oil-production-up-in-2012-as.html

[14] BP Statistical Review of World Energy 2014. (2014) Accessed on 3 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

Table 2. Oil Production of the Post-Soviet Caspian Countries

Thousand barrels daily	1992	2000	2005	2010	2011	2012	2013
Azerbaijan	227,5	281,2	444,9	1.023,3	918,8	919,0	931
Kazakhstan	568,9	740,2	1.330,2	1.739,8	1.757,8	1.724,4	1785
Russian Federation	7.978,2	6.582,8	9.597,7	10.365,3	10.509,8	10.643,2	10788
Turkmenistan	108,8	144,9	192,8	216,8	216,8	222,2	231

Source: BP Statistical Review of World Energy 2014 Database. Accessed on 3 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

Another sectoral development is the increasing need for investment. Because of the requirement of more sophisticated technologies and higher operational challenges in physically harder lands like offshore sea or Arctic, huge investments are needed for catching up a steady supply to the international oil market. Latest 2014 IEA report underlines that there would be a need of around $11.3 trillion cumulative global E&P investment during 2035 (in year 2012 US Dollar terms) under New Policies Scenario; only developing Russia's hydrocarbon resources successfully would require at least $849 billion.[15] When the other Caspian countries are also taken into account, the importance of a healthy institutional environment for the future oil supply is clear.

After the dissolution of Soviet Union in 1991, Post-Soviet countries had faced with the challenge of building their states. Inherited infrastructure and economically interdependent systems of the Soviet Union had not been easily replaced by the new ones. The transition was hard, because of the ingredients of surviving Soviet permanences in the region. However, some oil producing countries[16] had the chance to export their oil from other routes to the global markets with market oil prices quite fastly. This diversification led the road to a new revenue streams and new investments of projects.

[15] OECD/IEA World Energy Investment Outlook 2014. Accessed on 13 November 2014. <http://www.iea.org/publications/freepublications/publication/WEIO2014.pdf>. p.23- 29.

[16] Not gas-rich states because selling gas is harder in the sector than oil, which requires long term supply contracts and take-or-pay clauses.

Moreover, institutional environment of these countries followed different paths of development, although the inheritances like history, culture and governance from the Soviet times were common. Right after the breakup of Soviet Union, the Caspian oil supply visibly decreased both as total amount and also in terms of percentages; but with the help of oil prices and the re-investments to the projects, the supply percentage increased upto 19 percent in the last four years (See Figure 4).

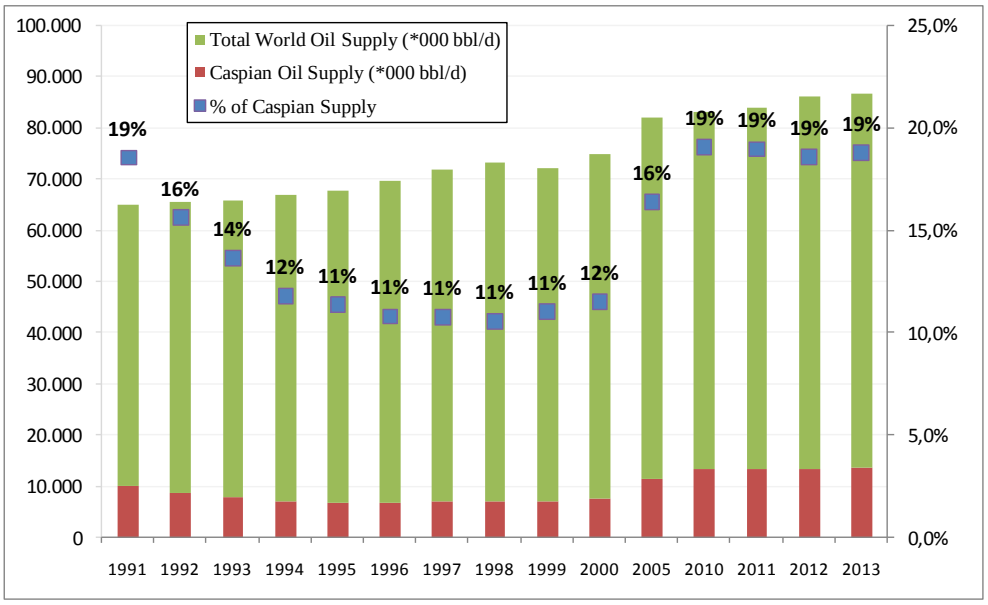

Figure 4. Caspian oil supply share (%)

Source: BP Statistical Review 2014 database and my own calculations. Accessed on 5 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

Table 3. Detailed Data of Caspian Oil Supplier Countries

	AZERBAIJAN	KAZAKHSTAN	RUSSIA	TURKMENISTAN
Liquids Resources (mmbbl)	12.173,30	32.160,51	132.305,53	2.899,28
Gas Resources (bcf)	52.380,12	106.937,42	1.605.673,75	548.999,25
Liquids Production - (mbopd)	861,34	1.588,45	10.445,78	225,62
Gas Production - (mmcfd)	1.615,23	3.799,43	61.507,73	7.219,73
No of Active Companies (#)	9	78	202	4
No. of Development Wells Drilled (#)	10	8	13	19
No. of NFW Discoveries (#)	1	4	6	1
Success Rate (%)	100	26,6666	25	50
Total Active E&P Licences (#)	25	272	3291	11

Source: IHS Energy. (2013) Petroleum Economics and Policy Solutions Database. Accessed on 3 September 2014. < http://www.ihs.com/products/oil-gas/news-analysis/peps. aspx >.

As an example, although Russia is leading the head for oil production growth rates, E&P active licencing, number of companies investing in the country and number of new field discoveries according to IHS Energy Database (See Table 3); these figures could not explain whether the institutional development of Russia is going toward a success or the institutional environment is coherent with its governance structures, or Russia has a successful fiscal regime in its oil sector for investor companies, or Russia would be one of the victims of the resource curse. An article was published in Moscow Times about the resource curse by Robert Skidelsky in 2004 and he said; "The Soviets were basically right in their perception that the path to development lay through manufacturing and not natural resources."[17]

The literature of "Resource Curse" accepts abundant resources as a curse for some resource-rich developing countries. Although there are many different explanations for the curse; the mainly accepted explanation was the "Dutch Disease" where the term was orginated from the Netherlands, after discovering large natural gas deposits in the North Sea in 1960s. The classic paper published by W.M. Corden and J. Peter Neary in 1982 says that a country's real exchange rate was appreciated because of the sharp rise in exports of the natural resources, thus limited capital and labor tend to fly away from country's other sectors like manufacturing; thus this create an inflationary pressure on country's economy.[18]

In contrary to the resource curse approach, Brunnschweiler and Bulte published their article recently in 2007, claiming that the constitutions and institutions are the main determinants of resource dependency and this abundancy is not affecting the growth and institutional quality negatively but rather positively.[19] Chaudhry analyses the oil-abundant Middle Eastern countries' economic development under three different time periods, argues how international environment affecting the domestic

[17] Robert Skidelsky. (2004). "Can Russia Escape the 'Resource Curse'?". The Moscow Times. 08 July.

[18] W.Max Corden and J.Peter Neary. (1982). "Booming sector and de-industrialization in a small open economy". *The Economic Journal*. Vol. 92. No. 368. p.832.

[19] N. Brunnschweiler and H.E. Bulte, (2007). "The Resource Curse Revisited and Revised: A Tale of Paradoxes and Red Herrings". *Center of Economic Research at ETH Zurich Working Paper.* 06/61. p.23.

institutions and present "a framework for examining institutional change in isolation" during the boom and bust periods.[20]

However, Ahrend and Tompson state the weakness of the institutional environment in the Post-Soviet countries as:

> In the years following the collapse of the Soviet Union, the petroleum producers among its successor states adopted a range of different strategies for managing and developing their hydrocarbons sectors. Patterns of ownership and control, as well as tax regimes, and attitudes towards both the extent and the modalities of foreign involvement varied widely. Their common features of the investment environment... include a generally weak institutional framework, pervasive corruption, opaque and often changeable policy-making on the part of the authorities, and relatively high levels of political and economic uncertainty.[21]

They define the weak institutional environment with corruption, frequent changes of the policies and the political uncertainty. Accordingly, Luong and Weinthal mention that "these former Soviet republics inherited universally weak institutions, - most notably fiscal regimes"; thus "the divergent development of fiscal regimes in each of these states from the early 1990s through 2005s" supports their argument saying, "institutions in oil-rich states are not a product of their wealth per se, but rather ownership structure- that is who owns and controls the sector".[22] Luong and Weinthal's main argument was that resource curse is not inevitable; the transition states need to form the right ownership structures and fiscal regimes per se for healthy sectoral development.

For sustainable development of national economies of Post-Soviet oil-rich Caspian countries, the development of the formal institutions in their oil sectors are very important. My thesis argues that New Institutional Economics approach is much more appropriate for explaining the developments in the oil sectors of these countries. Including the introduction and conclusion, my thesis consists of seven

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[20] Kiren Aziz Chaudhry. (1997). *The price of wealth: Economies and institutions in the Middle East*. Ithaca and London. Cornell University Press. p.9.

[21] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers.* No. 484. p.17-18.

[22] Pauline Jones Luong and Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States.* Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.4.

chapters. After the general introduction chapter, the second chapter describes the theory of new institutional economics approach in general and towards the Post-Soviet transition economies. From the third chapter to the sixth chapter the formal institutions of property rights and fiscal regimes of the Post-Soviet Caspian countries are analysed one-by-one, from the richest in oil resources, Russian Federation, Kazakhstan, Azerbaijan and Turkmenistan sequentially. Finally, in the concluding chapter, the comparative findings of the thesis are presented.

CHAPTER 2

NEW INSTITUTIONAL ECONOMICS APPROACH & ITS APPILICATION TO POST-SOVIET CASPIAN OIL SECTOR

In the oil sector "multinational firms compare and evaluate different locations in different countries on the basis of their expected profitability; if a location loses its competitiveness, firms move their operations, together with their capital, technical and organizational knowledge to locations where the conditions for business are more favorable" Mudambi and Navarra state.[23] Based on their view, this competitive advantage, traditionally backing up with macroeconomic conditions[24], is not supported by the institutional structures of the countries in the orthodox methodology and the institutions in this respect were disregarded in the international business literature by some neoclassical economists. [25]

As the eponym of New Institutional Economics ("NIE"), Williamson argues that "neoclassical economics was dismissive of institutions".[26] Çetin says that NIE has emerged as "an interdisciplinary approach which contributes to the economics literature empirically and theoretically"; moreover he underlines that NIE approach has been introducing "a different methodological perspective with a new terminology such as transaction costs, bounded rationality, property rights, incomplete contracts, institutions, and organizations".[27] He also mentions that "by bringing the institutional foundations of economic activity to the center of the positive research, it has become

[23] Ram Mudambi and Pietro Navarra. (2002) "Institutions and internation business: a theoretical overview" *International Business Review*. No 11. p. 635.

[24] Economic conditions like economic growth, income per capita, inflation, balance of payments and other main macroeconomic figures.

[25] Ram Mudambi and Pietro Navarra. (2002) "Institutions and internation business: a theoretical overview" *International Business Review*. No 11. p. 635.

[26] Oliver E. Williamson. (2000) ″The New Institutional Economics: Taking Stock, Looking Ahead″ *Journal of Economic Literature*. 38(3). p. 595.

[27] Tamer Çetin. (2012) "Yeni Kurumsal İktisat". *Sosyoloji Konferansları.* No 45. p.43.

the most dynamic and vital discipline in economics".[28] The orientation of this chapter is, after a biref description of the NIE's main hypotheses and concepts, analysing NIE's application to the Post-Soviet transition economies.

First, we have to indicate what the "traditional" or "old" institutional economics approach is, which focuses on the role of institutions in economic behavior and the evolutionary nature of the economics, appearing at the beginning of the twentiety century with the writings of Thorstein Veblen, Wesley Mitchell and John R. Commons.[29] The institutional economics theory advocates the assumptions of changing preferences, bounded rationality and Darwinism based evolution in economics; stating that the economics has an inseparable nature from political and social formations. Old institutional economics, taking the orthodox economics literature in the center, directly concerned with criticizing it without creating any positive research agenda Çetin argues.[30]

Erdogdu stated that "NIE has emerged as the body of economic thought that considers institutions to be relevant to economic theory...dealing with the nature, origin and evolution of institutions".[31] NIE is an interdisciplinary theory which is analysing the institutions and the interactions between the institutions. Groenewegen, Spithoven and Van der Berg underlines that "NIE accepts neither unbounded rationality, the perfect information environment of neoclassical theory, nor costless transactions".[32]

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[28] Tamer Çetin. (2012) "Yeni Kurumsal İktisat". *Sosyoloji Konferansları.* No 45. p.43.

[29] Institutional economics. (2014, September 15). In Wikipedia, The Free Encyclopedia. Accessed on 4 January 2015.<http://en.wikipedia.org/w/index.php?title=Institutional_economics&oldid =625739316>.

[30] Tamer Çetin. (2012) "Yeni Kurumsal İktisat". *Sosyoloji Konferansları.* No 45. p.48.

[31] Erkan Erdogdu. (2013) "A cross-country analysis of electricity market reforms: Potential contribution of New Institutional Economics*".* Energy Economics. Volume 39. p.240.

[32] Groenewegen, Spithoven and Van der Berg states NIE assumption of "bounded rationality", meaning the capacity of human beings to formulate and solve complex problems in limited sense; so the contracts are incomplete and leave room to uncertainties. Groenewegen, Spithoven and Van der Berg. (2010) *Institutional Economics: An Introduction*. London: Palgrave MacMillan; The term "**bounded rationality**" is firstly defined by Herbert A. Simon. He points out that most people are only partly rational, and are emotional/irrational in the remaining part of their actions. Herbert A. Simon (1957). "A Behavioral Model of Rational Choice", in Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting. New York: Wiley.

The basic beliefs of NIE are explained by Brousseau & Glachant as:

> - Legal, politicial, social and economic institutions…have important effects on economic performance…
> - Theoretical and empirical analysis should be interactive and evolve over time…
> - Interdisciplinary research may make important contributions to understanding the role of institutions and how they affect economic behavior and performance. Contributions from history, law, psychology, anthropology, sociology, religion, and related disciplines may play important role in advancing our understanding of institutions and their effects on the economy...
> - Longer-term dynamic considerations associated with technological change, the diffusion of innovations, and the impacts of institutions on both should play a more central role in economic analysis.
> - Our understanding of institutions should be rich enough to allow us to apply economic theory and empirical knowledge to a wide range of economic, cultural and political settings…
> - Institutional analysis seeks to understand the role of government and political institutions in policy formation, implementation, and economic performance, but it does not itself have a political agenda… [33]

After 1970s critising the old institutational school[34], knowing the strengths and limitations of the neoclassical theories and accepting the basic tools that have been developed by them; the father of NIE, North published articles searching whether the institutions are the gap-fillers in the market or not, in an incomplete world; moreover he analysed the evolution of the institutions.[35] Although there are many different definitions of "institutions", two of them are presented in the scope of this chapter.

The first major definition is of Douglas North, who defines institutions as:

> …the humanly devised constraints that structure political, economic and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights). Throughout history, institutions have been devised by human beings to create order and reduce uncertainty in exchange. Together with the standard constraints of economics they define the choice set and therefore determine transaction and production costs and hence the

[33] Eric Brousseau and Jean-Michel Glachant. (2008) *New Institutional Economics: A Guidebook, / edited by Éric Brousseau and Jean-Michel Glachant.* Cambridge, UK; New York: Cambridge University Press. p.5-6.

[34] "The traditional institutional economics lacked systematic theoretical foundations and comprehensive supporting empirical analysis. Moreover it was often country and case specific and little effort for generalization was made." taken from Eric Brousseau and Jean-Michel Glachant. (2008) *New Institutional Economics: A Guidebook, / edited by Éric Brousseau and Jean-Michel Glachant.* Cambridge, UK; New York: Cambridge University Press. p.6.

[35] D.C. North. (1971) "Institutional change and economic growth". *Journal of Economic History*. Volume 31. p. 118-125.

> profitability and feasibility of engaging in economic activity. They evolve incrementally, connecting the past with the present and the future; history in consequence is largely a story of institutional evolution in which the historical performance of economies can only be understood as a part of a sequential story. Institutions provide the incentive structure of an economy; as that structure evolves, it shapes the direction of economic change towards growth, stagnation, or decline.[36]

Rossiaud and Locatelli mention that this is a broad approach encompassing "both rules governing private transactions as well as legal and regulatory environment".[37] Seperately North defines organizations as:

> It is the interaction between institutions and organizations that shapes the institutional evolution of an economy. If institutions are the rules of the game, organizations and their entrepreneurs are the players. Organizations are made up of groups of individuals bound together by some common purpose to achieve certain objectives.[38]

Many scholars critise North's definitions. Hodgson argues as:

> North has been insufficiently clear. Consequently, many people misinterpret him as suggesting that organizations are not a type of institution. He is also misinterpreted as making a distinction between formal and informal institutions.[39]

Rossiaud and Locatelli present, according to North's perspective, the two main functional roles of institutions;

> i) institutions allow the decreasing of uncertainty which is faced by individuals ...
> ii) property rights structures on assets affect use of resources in some specific and predictable ways.[40]

Groenewegen, Spithoven and Berg underline that "well-defined, structured property rights and well-functioning, objective public courts reduce uncertainties for economic actors and facilitate efficient decision-making."[41] In his framework, North

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[36] D.C. North. (Winter 1991) "Institutions". *The Journal of Economic Perspectives*. Volume 5. No.1. p. 97.

[37] Sylvian Rossiaud and Catherine Locatelli. (September 2010) "Institutional Economics". *POLINARES Working Paper* No.12. p. 4.

[38] D.C. North. (June 1994) "Economic Performance through Time" *American Economic Review*. Volume 84. No. 3. p.361.

[39] Geoffrey M. Hodgson. (March 2006) "What are institutions?" *Journal of Economic Issues*. Vol 40. No.1. p.9.

[40] Sylvian Rossiaud and Catherine Locatelli. (September 2010) "Institutional Economics". *POLINARES Working Paper* No.12. p. 4.

also accepts transaction costs as a critical determinant of economic performance, with the acceptance of individual wealth-maximizing behavior and imperfect informative environment; hence the cost of transacting is determined by institutions.[42]

The second major definition is of Oliver E. Williamson, under the framework of transaction cost economics ("TCE"). He defines institutions as "the governance structures specified by agents for managing their transactions" as presented in the paper of Rossiaud and Locatelli.[43] Although the principal institutions of capitalism was classified as "the market" and "the hierarchy" by Coase[44]; Williamson underlines "the hybrid" forms consisting of composite models of capitalistic coordination combining the market, networks and the State[45] and combining all of them under the umbrella of contractual rule.

Rossiaud and Locatelli states that "these private-order rules and organizations are essential for agents to protect themselves against opportunism of their partner".[46] Willamson as the inventor of the term of "New Institutional Economics", presented multi-level model with four interrelated levels of social or institutional analysis in Figure 5.[47] He defined the soft boundaries of NIE and explains the model as:

> ... The system is fully interconnected… The top level is the social embeddedness level. This is where the norms, customs, mores, traditions, etc. are located.Religion plays a large role at this level…The second level is referred to as the institutional environment. The structures observed here are partly the products of evolutionary processes, but design opportunities are also posed. Going beyond the "informal constraints (sanctions, taboos, customs, traditions, and codes of conduct)" of a Level 1 kind, we now introduce "formal rules (constitutions,

[41] John Groenewegen, Antoon Spithoven and AnnetteVan den Berg. (2010) *Institutional Economics: An Introduction*. London: Palgrave MacMillan. p.62

[42] D.C. North. (Winter 1991) "Institutions". *The Journal of Economic Perspectives*. Volume 5. No.1. p. 98.

[43] Sylvian Rossiaud and Catherine Locatelli. (September 2010) "Institutional Economics". *POLINARES Working Paper* No.12. p. 5.

[44] Ronald Harry Coase. (1988) *The firm, the market and the law*. Chicago: University of Chicago Press. p.5.

[45] Bernard Chavance. (2007) *Institutional Economics*. London: Routledge. (Orginally published in French as *L'economieinstitutionnelle*. 2007. Paris: La Decouverte.) p.46.

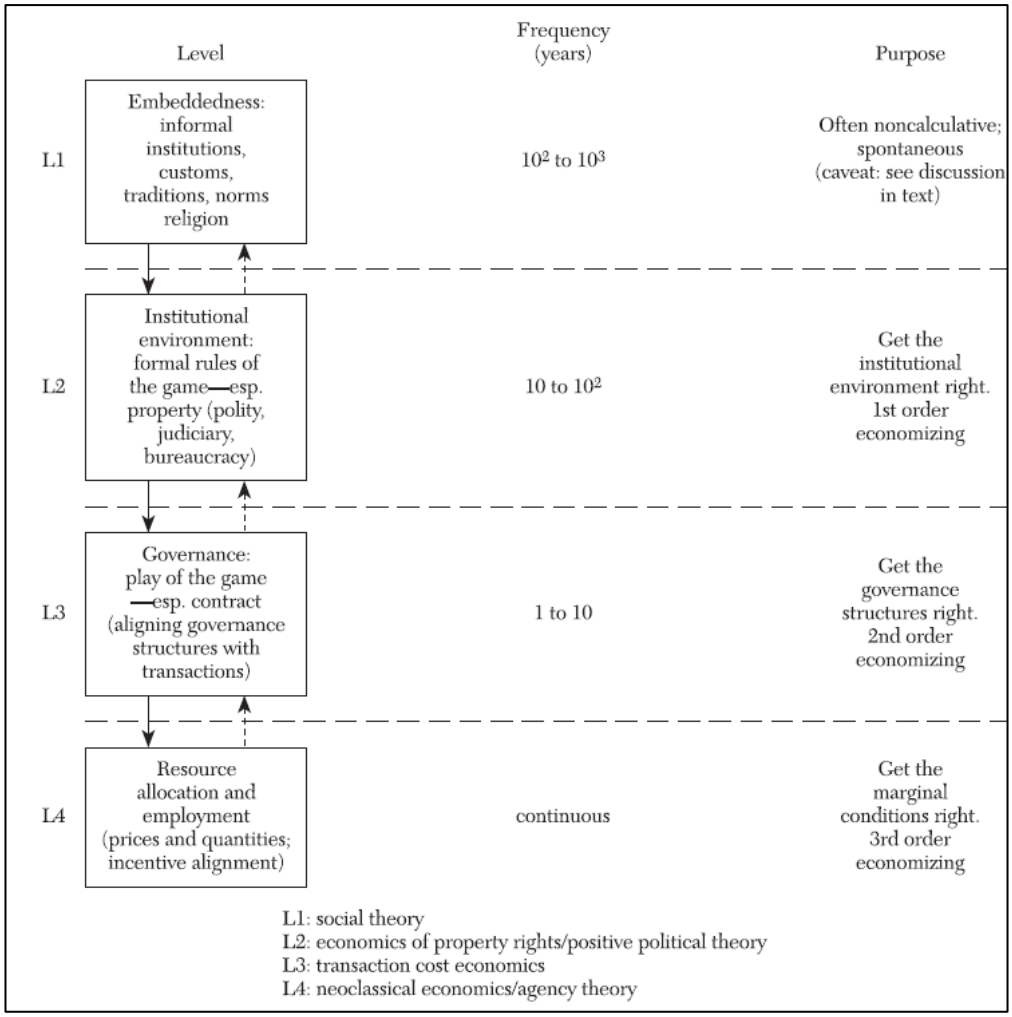
[46] Sylvian Rossiaud and Catherine Locatelli. (September 2010) "Institutional Economics". *POLINARES Working Paper* No.12. p. 5.

[47] John Groenewegen, Antoon Spithoven and AnnetteVan den Berg. (2010) *Institutional Economics: An Introduction*. London: Palgrave MacMillan. p.66

> laws, property rights)" (North1991, p. 97). This opens up the opportunity for first-order economizing: get the formal rules of the game right…The definition and enforcement of property rights and of contract laws are important features (…)
> …the third level, which is where the institutions of governance are located. Although property remains important, a perfectly functioning legal system for defining contract laws and enforcing contracts is not contemplated. Costless court ordering being a fiction, much of the contract management and dispute settlement action is dealt with directly by the parties through private ordering....[48]

The interconnectiveness between the levels of the model is the most important dimension of Williamson's model; where he explains the model with a help of a graphical shema which is presented in Figure 5.

Figure 5. Williamson's NIE Multi-Level Model of Economics of Institutions



Source: Oliver E. Williamson. (2000) "The New Institutional Economics: Taking Stock, Looking Ahead" *Journal of Economic Literature*. 38(3). p. 597.

[48] Oliver E. Williamson. (2000) "The New Institutional Economics: Taking Stock, Looking Ahead" *Journal of Economic Literature*. 38(3). p. 596.

Using this multi-level model of Williamson, Rossiaud and Locatelli argue the institutional complementarity and institutional change, rooted from the continous, ongoing interaction between individuals and entrepreneurs of organizations.[49] [50] They underline the complexity of the process and incremental, path dependant nature of the institutional change. The concept of path dependency was put forward by Brian Arthur at first, North describes the path dependency as "more than the incremental process of institutional evolution in which yesterday's institutional framework provides the opportunity set for today's organizations and individual entrepreneurs (political or economic)" and he states that "the future of a country depending on the inheritances of its old systems but not gurantee the economic development of that country".[51]

Opper states that the standard economic toolkit, not including institutions in the analysis, was not successful to describe the breakup of Soviet Union in 1991.[52] On the contrary, many articles and books have been published about the NIE's application to the transition economies. Roland examines how the transition process changed the economists' scientific though of institutions, from static to dynamic.[53] Since then, the role of institutions in the transition economies' development have been an issue of interest for many theoretical analyses. Transition economies is defined by IMF as "the countries who are in transformation from centrally planned economies into market economies".[54] IMF watches the main economic figures of

[49] Organizations are described in this paper as the players: groups of individuals bound by a common purpose to achieve objectives, including political bodies, economic bodies (firms...), social bodies and educational bodies (schools..)

[50] Sylvian Rossiaud and Catherine Locatelli. (September 2010) "Institutional Economics". *POLINARES Working Paper* No.12. p. 9.

[51] Douglass C. North. (Winter 1991) "Institutions". *The Journal of Economic Perspectives*. Volume 5. No.1. p.109.

[52] Sonja Opper. (2008) *New Institutional Economics and Its Application on Transition and Developing Economies.* a chapter of the book of Brousseau E. and Glachant J.M. Eds. (2008) New Institutional Economics: A Guidebook. London: Cambridge University Press. p. 389.

[53] Gérard Roland. (May 2002) "Ten Years After . . . Transition and Economics". *IMF Staff Papers.* Volume 28. Special Issue. p.31.

[54] IMF has four main group of transition economies, where Commonwealth of Independent States ("CIS") consists of Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan. IMF. (3 November 2000) "*Transition Economies: An IMF Perspective on Progress and Prospects*". IMF Database. Accessed on 8 July 2014. <https://www.imf.org/external/np/exr/ib/2000/110300.htm>.

these transition economies and analyses the level of their economic development; where Peet underlines that after the mid-1970s, IMF adheres to a neo-liberal version of neoclassicism, which generates the same policy package no matter what the context is.[55]

Since the transition was not successfully described by "generic" theories; on the contrary NIE aims to include legal, economic, social, political, instititional dimensions into their analysis, not only using the neo-classical analytical tools, but also using other broad tools.

However, from the mid-1990s the field of work has expanded with the help of new cross-national data sets collected by World Bank that allow tests of hypotheses on comparative economic systems and institutions.[56] The transition economies share broad similarities with other developing economies with respect to the importance of building institutions that can enable economic actors to create private and social wealth Brousseau and Glachant argues.[57] But they state the societies which have no private property and have relied on communal exploitation of resources and collective allocation decisions can not be expected overnight to successfully adopt the basic institutions of capitalism.[58] Accordingly**,** Murrell points out that after the dissolution of Soviet Union, there was no formal institutions of capitalism in the Post-Soviet countries; mammoth institutional destruction of the powerful socialist institutions and construction of the new ones were on the agenda.[59] In line with this, Post- Soviet organisations also had to adapt to this changing institutional environment or the new ones had to be established.

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[55] Richard Peet. (2003) *Unholy Trinity: The IMF, World Bank and WTO.* UK: Zed Books. p.57.

[56] Thorsten Beck, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh. (September 2001) "New tools in comparative political economy: The Database of Political Institutions" 15:1. *World Bank Economic Review*.p.165-176.

[57] Eric Brousseau and Jean-Michel Glachant. (2008) *New Institutional Economics: A Guidebook,* London: Cambridge University Press. p.389.

[58] Eric Brousseau and Jean-Michel Glachant. (2008) *New Institutional Economics: A Guidebook,* London: Cambridge University Press. p.9.

[59] Peter Murrell. (2003) "Institutions and Firms in Transition Economies". *Journal of Economic Literature*. p.1.

Brousseau states the major controversy about institutions as:

> Some scholars defend the idea that rational individuals voluntarily and purposely create institutions, whereas others argue that institutions emerge spontaneously. Still others combine these views by considering how the drivers of institutional evolution depend on the type of institution under scrutiny. For instance, it is often suggested that formal rules are designed whereas informal rules are spontaneous.[60]

Whether the institutions are voluntarily and purposely created or emerged spontaneously; for oil sector there are two main economic institutions, property rights and fiscal regimes. These institutions affect the investment environments, FDIs and the NOCs' structures in their oil sectors as well.

Being one of the most important economic institutions, influencing the economic incentives in a society and allocating the resources in the oil sector, the definition of property rights has been diversified. Common defines the property right in broader terms as "the authority to undertake particular actions related to a specific domain".[61] Alchian defines it more specifically as:

> A property right is the exclusive authority to determine how a resource is used, whether that resource is owned by government or by individuals. Society approves the uses selected by the holder of the property right with governmental administered force and with social ostracism.[62]

[60] Eric Brousseau, Pierre Garrouste and Emmanuel Raynaud. (2011) "Institutional changes: Alternative theories and consequesces for institutional design". *Journal of Economic Behaviour & Organization*. Volume 79. p.3.

[61] John R. Commons. (1968) *Legal Foundations of Capitalism*. Madison: University of Wisconsin Press.

[62] Armen A. Alchian. (2008) "*Property Rights*". The Concise Encyclopedia of Economics. Library of Economics and Liberty. Accessed on 15 September 2014, <http://www.econlib.org/library/Enc/PropertyRights.html>

Demsetz describes the property rights as "the rights arise when it becomes economic for those affected by externalities to internalize benefits and costs" and he distinguishes the idealized forms of ownership as:

> By communal ownership, I shall mean a right which can be exercised by all members of the community. Frequently the rights to till and to hunt the land have been communally owned. The right to walk a city sidewalk is communally owned. Communal ownership means that the community denies to the state or to individual citizens the right to interfere with any person's exercise of communally-owned rights. Private ownership implies that the community recognizes the right of the owner to exclude others from exercising the owner's private rights. State ownership implies that the state may exclude anyone from the use of a right as long as the state follows accepted political procedures for determining who may not use state-owned property.[63]

Dallago and Iwasaki describe the Coase theorem in relation to property rights and they say "if there is a unique socially efficient allocation of resources, that allocation will be reached through the market independently from the initial allocation of property rights provided that rights are properly defined and enforced, actors are free to transact, and there are no transaction costs...taken its unrealistic nature and because there are transaction costs in every market, the initial allocation of property rights are very important for efficient outcome in this respect.[64]

Demsetz underlines the importance of the property rights for calculation of transaction costs in a market and measurement of the externalities; he argues that the communal property creates greater externalities, higher transaction costs and more ineffectiveness in the country's economy. On the contrary, lowering the transaction costs are one of the main aims of a private property owner he says.

[63] Harold Demsetz. (May 1967) "Towards a Theory of Property Rights". *The American Economic Review*. Volume 57. Issue 2. p.352.

[64] Bruno Dallago and Ichiro Iwasaki. (2007) *Corporate Restructuring and Governance in Transition Economies*. Basingstoke: Palgrave Macmillan. p.21.

Likewise, Luong and Weinthal argue that these oil-rich states were "cursed" not by their wealth but rather by the structure of ownership they choose to manage their wealth and the transaction costs created inside the structures.[65] Although the resource curse literature accept the property rights as constant, Luong and Weinthal accept it as variable and state the changing nature of the property rigths in the sector over time. They adopted four type of strategies which are described below as:

> **S1- State ownership with control**: The state must own the rights to develop the majority of petroleum deposits and hold the majority of shares (>50 percent) in the petroleum sector. Foreign involvement is limited either to participating in contracts that restrict their managerial and operational control, such as carried interest or joint ventures (JVs), or to operating as service subcontractors.
> **S2- State ownership without control:** The state must own the rights to develop the majority of petroleum deposits and hold the majority of shares (>50 percent) in the petroleum sector. Foreign investors are allowed to participate through more permissive contracts, such as production- sharing agreements (PSAs), which grant them significant managerial and operational control.
> **P1- Private domestic companies** can own the rights to develop the majority of petroleum deposits and hold the majority of shares (>50 percent) in the petroleum sector.
> **P2- Private foreign companies** can own the rights to develop the majority of petroleum deposits and hold the majority of shares (>50 percent) in the petroleum sector, usually via concessionary contracts. [66]

As discussed in following chapters, each of the Post-Soviet Caspian countries accepted different strategy and adopted different ownership structure. Dallago and Iwasaki state that the boundaries of a firm in an economy are also determined by the ownership structures in a country and it could be changed only by restructuring programs like privitisation. The firms operating in a socialist economy had different governance routines, features and targets than those in a market economy and it can only be changed during the transition process.

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[65] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.6.

[66] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.7.

They describe this as: “Firm boundaries depend on institutions, human actors, policies, and technology, all bound to change during transformation.”[67] In addition to that, Alchian states the need of strong system of property rights in a market economy and moreover, he emphasizes the discussions about the priority of the "property" rights over "human" rights”.[68]

The other important institution, the fiscal regime, differentiated from the macro-economic terms, has specific meaning in my thesis; which is defined by the two authors. As defined briefly by Kasriel & Wood:

> The fiscal share, or “take”, from an upstream petroleum project is one of the key factors determining profitability, from the perspective of both the investors and host country governments involved. This “take” is determined not just by tax rates, but also by a number of other mechanisms which collectively make up a country’s fiscal regime… [69]

As defined more detailed in the article of Dongkun:

> Fiscal terms (regime) usually include terms such as host nation equity and manner, ring-fence of the revenue and cost, pricing mechanisms, cost recovery upper limit, cost recovery order, definition and distribution of profit oil, the proportion of the royalties, corporate income tax ratio, depreciation and depletion, bonus and its recovery, product pricing and sales methods, losses carry-over, rent, duties, pipeline construction and its cost, domestic market obligations, training fees, and other fees.[70]

These two definitions indicate that the fiscal regime in the oil sector depends on many parameters and it does not have only commercial or legal, but technological sphere too. Acemoglu notes that the institutions may affect the economic growth depending on the technological changes.[71]

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[67] Bruno Dallago and Ichiro Iwasaki. (2007) *Corporate Restructuring and Governance in Transition Economies*. Basingstoke: Palgrave Macmillan. p.21-22.

[68] Armen A. Alchian. (2008) "*Property Rights*". The Concise Encyclopedia of Economics. Library of Economics and Liberty. Accessed on 15 September 2014, <http://www.econlib.org/library/Enc/PropertyRights.html>

[69] Kasriel, Ken & Wood, David. (2013) *Upstream petroleum fiscal and valuation modelling in Excel: a worked examples approach*. UK: John Willey&Sons Ltd.

[70] Luo Dongkun and Yan Na. (December 2010) “Assessment of fiscal terms of international petroleum contracts” *Petroleum Exploration and Development* Volume 37. Issue 6. p. 756.

[71] Daron Acemoglu, Simon Johnson and James Robinson. (2004) “Institutions as the Fundamental Cause of Long-run Growth”. *NBER Working Paper Series*. Working Paper 1048.

In the thesis, I aim to analyse the institutional evolution of the Post-Soviet Caspian oil producing countries comparatively, using North's definition and macroeconomic views, Williamson's multi-level model, Luong and Weinthal's classification and accepting the property rights and fiscal regime as the two main formal institutions. I try to present the relationship between the institutional change and the development in their oil sectors, taking the global oil sector's technological dimension constant. These two institutions are mattering for their economic growth but author's question is whether they affect the growth rate in their oil sector.

Cambridge, MA. National Bureau of Economic Research. Accessed on 1 September 2014. <http://www.nber.org/papers/w10481>. p.9.

CHAPTER 3

THE DEVELOPMENT OF INSTITUTIONS IN THE OIL SECTOR OF RUSSIA

This chapter focuses on Russia which was the biggest oil supplier of the Soviet Union. Russia had faced serious organizational crisis specifically in its oil sector during the years of collapse. This massive, centrally planned economy with its coordination and command mechanisms and its formal institutions was abolished; however many informal institutions were survived during this process. The transition had an unstable nature and the new institutions have been started to be built regarding to their dependency paths as North and NIE authors suggested.

After the collapse, the declining figures of the GDP rates, oil supplies and downward figures of the whole economy, made Russia search alternative reform programs for increasing output and efficiency; hence the first reform was targeting the property rights in the oil sector, the locomotive sector of the country's economy. Therefore Kremlin decided to start a program targeting to switch to the private property rights model. Locatelli and Rossiaud mention the two aims of this model: the first aim was to provide an incentive for efficient practices which guarantee the long-term growth and, with more balanced development, secure the reserve replacement; the second aim was to modify the coordination mechanisms in order to stabilize the transactions between the main actors in the oil industry.[72]

Russia launched this privatization programme "through the Law on Underground Resources and the adoption of new Constitution in 1993"[73] and the major players in the oil sector were gradually changed to a vertically integrated companies (VICs).

[72] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p. 5589.

[73] Arina Shulga. (2001) "Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future." *U. Pa. J. Int'l Econ.* L. 22. p.1074.

Luong and Weinthal underline that Russian Federation adopted the P1 (Private Domestic Ownership) type of ownership strategy in the oil sector, soon after its independence.[74] Locatelli and Rossiaud describe the privitisation process as:

> ...in the upstream sector of the oil industry were delegated to varying degrees to private companies. These companies emerged following the different privatization movements of the 1990s, mass privatization using the voucher system in 1992–1993 and the Loans for Shares programme of 1995. Even if one state-controlled company Rosneft remained, it was at the time very small, as were the so-called regional companies. In 2003 Rosneft accounted for less than 5% of Russian oil production.[75]

After the privitisation, it's suprising that Rosneft had only 5 percent of the country's total oil production. Shulga mentions that Russia's 1998 financial crisis had a devastating impact on the Russian economy; thus not only GDP but also the volume of foreign investment fell by half.[76] Although Russia faced financial turbulance hardly, the Russian oil output recovered rapidly. Ahrend and Tompson describe the reasons as;

> The combination of private ownership and low taxation proved extremely effective in generating a rapid recovery of output. Production began to recover, albeit slowly, around the time that the new owners took control of the privatised VICs and began to restructure them. Output growth accelerated sharply after the 1998 financial crisis, as the recovery in oil prices, coupled with the perception that property rights had become sufficiently secure, contributed to a strong recovery in investment, output and exports. Oil-sector investment jumped from roughly 25 percent of industrial investment before the crisis to around 35 percent in 2004.[77]

Shulga mentions that although there was a change in leadership in 1999 (Yeltsin resigned in 1999 and Vladimir Putin was elected as President of Russian Federation in 2000) the reform program was successfully handled by Putin and moreover he emphasized his commitment to improving Russia's investment climate.[78]

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[74] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.18.

[75] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p. 5590.

[76] Arina Shulga. (2001) "Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future." *U. Pa. J. Int'l Econ.* L. 22. p.1072.

[77] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.21.

[78] Arina Shulga. (2001) "Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future." *U. Pa. J. Int'l Econ.* L. 22. p.1072.

Starting from 1999, with the increasing trend of the international oil prices, escalating gain of oil wealth from higher export revenues of oil was realized. Locatelli arguably states that, the new players, set up in the oil sector with the help of state, were formed in order to manage state enterprises of Gazprom and Rosneft."[79] These were the signs of change in ownership structures in Russia. At the end of the process of privitization, most of the state's oil assets transfered to private individual's hand. Ahrend and Tompson describe two types of owners as:

> Some oil companies were privatised into the hands of insider managers who were oil industry professionals (so-called *neftyaniki* or oilmen), while others were acquired by politically well connected financial groups (the so-called *finansisty*), usually after those same groups had secured the allegiance of insider managers within the companies in question. The distinction between the *finansisty* and the *neftyaniki* turns out to have been an important one, as the strategies pursued by the companies in the decade since privatisation have tended to reflect to some extent the different orientations of the two types of owner[80]

Whether these were the different types of owners, Shulga underlines that through privitisation process, the former Soviet oil and gas elites have got the ownership of assets.[81] Hence in 2004, the oil sector was consolidated around VICs and the top four private companies accounted for over 60 percent of output and almost 58 percent of exports.[82]

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[79] Catherine Locatelli. (1995) "The reorganization of the Russian hydrocarbons industry". *Energy Policy.* Volume 23. No. 9. p.812.

[80] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.18.

[81] Arina Shulga. (2001) "Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future." *U. Pa. J. Int'l Econ.* L. 22. p.1075.

[82] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.19.

Table 4. Major Russian Oil Producers, 2004

Company	Output (mt)[1]	Non-CIS exports (mt)[2]	Refining (mt)
Yukos	85.7	31.3	31.9
Lukoil	84.1	29.3	35.5
TNK-BP	70.3	36.3	21.6
Surgutneftegaz	59.6	22.4	15.9
Sibneft	34	13.1	14.3
Tatneft	25.1	9.8	6.7
Slavneft	22	3.9	12.4
Rosneft	21.6	8.2	9.5
Bashneft[3]	12.1	–	18.3
Gazprom	12	0.4	6.4
Others (including JVs)	32.5	51.92	40.8
Total	**485.8**	**206.6**	**195.0**

[1] Includes crude oil and condensate.

[2] Data on exports by company includes only shipments carried by Transneft and exports from proprietary terminals. Rail, river and other bypassing deliveries are included in 'others'.

[3] Data on Ufa-based refineries

Source: InfoTEK, Ministry of Energy and Industry, Renaissance Capital.

Source: Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.19.

Although the privatization in upstream part of the oil sector of Russia was achieved through the VICs; Kremlin kept its power to control these companies on the terms of their transportation capacities and kept Transneft as the monopol company in the midstream part. Because this process of privatization of the property rights in the oil sector was kept closed between the domestic investors and Kremlin; thus foreign oil companies started to seek the ways of entering into this highly profitable strategic sector and forming joint ventures with domestic companies.

Kremlin tried to adopt a formula for keeping the foreign investment in the country especially for the projects requiring high drilling technology and expertise; hence a PSA Law was accepted in 1995.[83]

Ahrend and Tompson states that;

> Although a framework law on PSAs was adopted in 1995, it had little impact owing to the authorities' failure to complete the legal framework needed for PSAs to function effectively. The procedures for negotiating and concluding PSAs were cumbersome in the extreme, the relevant tax code chapter was stalled for years, and much of the legislation that was passed clearly contradicted other legislation…The licence to exploit a field must first be put up at

[83] President Yeltsin signed this law on December 30,1995.

> auction or tendered in some other way on the basis of the normal tax and royalty regime. Only if no bidders are found on such terms will the state consider concluding a PSA. To be sure, it was never intended that PSAs would form the basis for the fiscal regime in the oil sector. They were seen as a transitional arrangement to facilitate investment while the country developed its tax code and regulatory framework.[84]

Moreover, different investment methods in Russia was adopted and formed over time; since the door of project financing method was opened for foreign investors with adoption of the 1995 PSA Law according to Shulga.[85] However, the author argues that the PSA framework, has not been accepted as a common fiscal regime by the Russian authorities, mainly because of the changeability of the main fiscal terms from contract to contract and the hardship to negotiate and control all the contracts.[86]

Since this was the case, Russia has been signed only three PSAs with different group of foreign companies until 2014. Ironically the oil production from these 3 PSAs were increased 12 percent and reached 241 thousand bbl/day in 2014 August, month-on-month basis, from 2013.[87] Russia's total production was nearly 10.8 million bbl/d of oil in 2013 according to BP; since 10 million target was passed in 2010 (See Figure 6 and Table 5)

[84] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.20.

[85] Arina Shulga. (2001) "Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future." *U. Pa. J. Int'l Econ.* L. 22. p.1069.

[86] "Negotiations of the first PSA projects lasted for an average of eight years and three months, despite the highlevel lobbying at the government level. Each project had to obtain on average 1,500 permits in order to start operations." taken from the article of Arina Shulga. (2001) "Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future." *U. Pa. J. Int'l Econ.* L. 22. p.1086.

[87] Reuters. (2 September 2014) *Update 2- Russian Oil Production Rises in August, sanctions yet to bite*. Accessed on 2 September 2014. <http://www.reuters.com/article/2014/09/02/russia-energy-production-idUSL5N0R31QX20140902>.

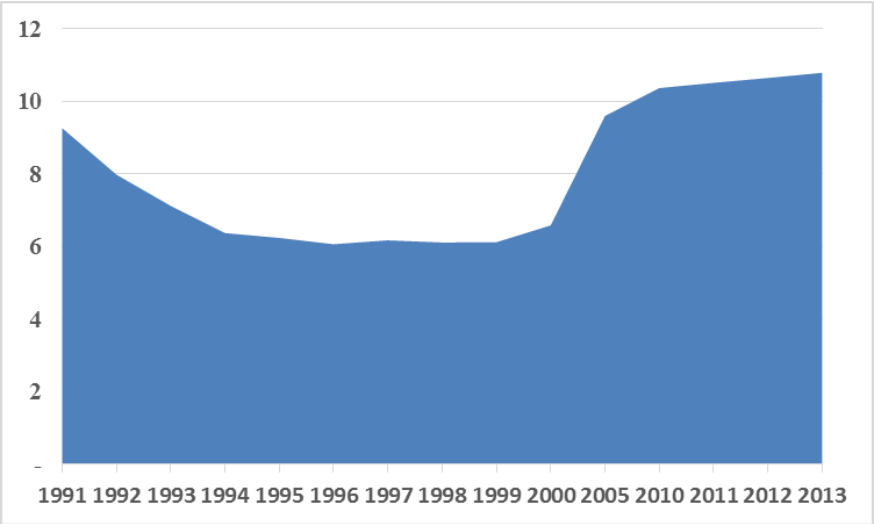

Figure 6. Russian Oil Production (1991-2013) (Bbl/d)

Source: BP Statistical Review of World Energy 2014. Accessed on 3 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

Table 5. PSAs in the Russian Oil Industry

Project	Project operator	Investors	Field/contract territory
Sakhalin I	Exxon Neftegaz Ltd. (Bahamas)	• Exxon Neftegaz Ltd. (Bahamas) (a subsidiary of Exxon Mobil (USA)) - 30% • Consortium SODECO (Japan) - 30% • JSC Rosneft (Russia) acting via its affiliates RN-Astra (Russia) - 8,5% and Sakhalinmorneftegaz-Shelf (Russia) - 11,5% • ONGC Videsh Ltd. (India) - 20%	Chayvo, Odoptu and Arkutun-Dagi fields
Sakhalin II	Sakhalin Energy Investment Company Ltd. (Sakhalin Energy) (Bermuda)	• Gazprom Sakhalin Holdings B.V. (Netherlands) (a subsidiary of JSC Gazprom (Russia)) - 50% + 1 share • Shell Sakhalin Holdings B.V. (Netherlands) (a subsidiary of Royal Dutch Shell plc. (Netherlands/UK)) - 27,5% - 1 share • Mitsui Sakhalin Holdings B.V. (Netherlands) (a subsidiary of Mitsui and Co., Ltd. (Japan)) - 12,5% • Diamond Gas Sakhalin B.V. (Netherlands) (a subsidiary of Mitsubishi Corporation (Japan)) - 10%	Piltun-Astokhskoye and Lunskoye fields
Kharyaga	Total Exploration Production Russie (France)	• Total Exploration Production Russie (France) (a subsidiary of concern Total (France/Finland)) - 40% • Norsk Hydro Sverige A.B. (Sweden) (a subsidiary of Statoil Hydro (Norway)) - 30% • JSC Zarubezhneft (Russia) - 20% • Nenets Oil Company (Russia) - 10%	Kharyaga field (part of Timan-Pechora basin)

Source: The Central Bank of Russia. (October 2011) "Production Sharing Agreements". *24th Meeting of the IMF Committee on Balance of Payments Statistics*. BOPCOM 11/17. p. 6.

Since the oil sector of Russia was liberalized, Locatelli and Rossiaud underline that the reforms of the 1990s did not enable the Russian oil industry to move toward growth patterns that would secure its long-term development and the formal institutions were neither functioning effectively, nor there was a coherent investment environment.[88] They underline the major institutional changes in the oil sector as;

> ...the state's inalienable ownership of the subsoil was ratified by the adoption of the Subsoil Law of 1992. This law and its amendments of 1995 established the conditions of access to hydrocarbon resources, as well as the rights and obligations of the different parties involved, through of a system of exploration and production licences. A principle of joint decisions between federal and regional authorities on allocation of licences was established in the law. The 1995 law on Production Sharing Agreements also introduced... Finally, the 1995 law on the Continental Shelf of the Russian Federation was introduced to regulate offshore activities. Until 2004, E&P licences were managed by the Ministry of Natural Resources. Since 2004, this responsibility has been shared between two agencies under the jurisdiction of the Ministry of Natural Resources, the Federal Agency for Subsoil Use (which organizes calls for tender and bidding procedures) and the Federal Service for Supervision of Nature Use.[89]

Three other major legal changes in the oil sector, positively attracted the foreign investors, were firstly the 1999 Law on Foreign Investment and secondly the Federal Amendment to the Law of Subsoil, signed on 2nd January 2000, and thirdly the 1999 Amendment of the PSA Law, Shulga mentions.[90]

During these institutional changes were happening, Russia has been in the need of finance and technical expertise for new deep sea exploration projects. Thus, Locatelli and Rossiaud say that Russia has been in a deep exploration crisis; where there was a "decline in the renewal rate of reserves and a decline of the contribution of proven & recoverable reserves (ABC reserve category in Soviet system) to the overall total of explored reserves (dropped from 67.8 percent in 1958 to 26.5 percent in 2000)..."[91]

Moreover larger revenues started to come in and circulate in the Russian economy after 2000s and the advisors of Putin started to state the alarm of negative effects of

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[88] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p. 5588.

[89] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p. 5590.

[90] Arina Shulga. (2001) "Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future." *U. Pa. J. Int'l Econ.* L. 22. p.1089.

[91] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p. 5590.

these revenues, Dutch Disease effect, to the overall economy. Hence the Stabilization Fund was established in 2004 as a part of the federal budget to balance the federal budget at the time of when oil price falls below a cut-off price, to absorb the excessive liquidity, to reduce inflationary pressure and to insulate the economy from volatility of raw material export earnings.[92] Gel'man and Marganiya disclosed that the Fund had nearly $160 billion by January 2008, thus the Ministry has not been disclosed any newer data about the Fund.[93] Moreover with the increased oil export wealth of the VICs and the bullish oil price trends, Putin had calculated the overall risks well Gel'man and Marganiya state and he made further institutional changes in property rights after 2000s:

> …under Putin the concept of "equal distancing of the state from oligarchs" was proclaimed. An informal agreement between Putin and major business leaders was reached on the nonencroachment of business into politics and on recognition of the results of privatization by the state. However, for a number of reasons this informal agreement was broken in 2003. On the eve of 2003 parliamentary elections, the Kremlin initiated a "war on oligarchs" which resulted in the Yukos affair. The Kremlin was afraid that business would try to convert its oil revenues into political influence. Yukos, the largest Russian private oil company, seemed to be the most suitable candidate for capture, especially because of the deep involvement of its top managers into political activism. Yukos found itself on the verge of bankrupcy, and was deprived of its most important assets. Furthermore, Gazprom, the major state-owned company in Russia, acquired Sibneft assets in 2005. After this, the trend for the gradual nationalization of the oil industry in Russia became clear. Most of the Russian oil industry came under state ownership. Also, the process of nationalization of the Russian oil industry through major revisions of property rights had a dramatically negative impact for the rule of law like in the cases of Yukos and Russneft, the private oil company acquired in 2007 by entrepreneur Oleg Deripaska, who is close to the Kremlin.[94]

The re-nationalisation trend in the oil sector can be observed from the supply figures, NOCs' production had accounted for 4.3 percent of the total oil production in 2003; were 39.7 percent in 2009.[95] The NOCs of Russian Federation, Rosneft, Gazprom and its subsidiary GazpromNeft appeared as the main players in the oil sector in the last decade (See Table 6). Ahrend and Tompson underline that, the more Russia tried to capture the rents arising from the increasing oil prices; the more damage it has

[92] Ministry of Finance of the Russian Federation. (2014) Stabilization Fund. Accessed on 27 September 2014. <http://www.minfin.ru/en/stabfund/about/>.

[93] Vladimir Gel'man and Otar Marganiya. (2010) "*Resource Curse and Post-Soviet Eurasia: Oil, Gas and Modernization*". USA: Lexington Books. p.66.

[94] Vladimir Gel'man and Otar Marganiya. (2010) "*Resource Curse and Post-Soviet Eurasia: Oil, Gas and Modernization*". USA: Lexington Books. p.65.

[95] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p. 5593.

employed to the industry not only in short but also in the long-term.[96] Luong and Weinthal states that Russia's ownership structure was changed from P1 (Private Domestic Ownership) to S1 (State Ownership with Control) in 2005.[97]

Table 6. Principal Russian Oil Companies in 2009

Principal Russian oil companies in 2009 (according to output).

	Oil companies	Production in mbd
Private companies	Lukoil	1.80
	TNK-BP	1.41
	Surgutneftegaz	1.18
	Slavneft (50 private, 50 public)	0.31
	RussNeft	0.24
State-controlled companies	Rosneft	2.41
	Gazprom	1.05
	Incl. GazpromNeft	0.59
Regional companies	Tatneft	0.52
	Bashneft	0.25
Others (including PSA)		0.79
Total		9.96

Source: "Russian oil production". Argus FSUE, 29 January 2010.

Source: Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p.5593.

The insecure nature of the property rights in Russia, composing not only from the defective yo-yo privatisation program, the weakness of rule of law, but also the uncertainties arising from the licencing regime Ahrend and Tompson conclude.[98] For understanding the last one, the administration of the system of licences were difficult and complex; the revocation process of a licence was legally problematic; moreover, Kremlin has been using the revocation of a licence as a strategic tool to pressure companies.

[96] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.21.

[97] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.18.

[98] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.25.

Additionally in 2007, Russia introduced a new term of "Strategic Field" and defined the 31 fields as strategic oil and gas fields, where foreign companies could invest in minority share but the operations should be performed by domestic companies.[99] This type of unilateral legal, fiscal implementations affecting the property rights in the oil sector, decrease the attractiveness of an investment and enhance the negative concerns of the private foreign investors. Shulga points out the low levels of foreign investment in Russian oil and gas sector because of the irregularity, uncertainty, and speculations around Russia's legal and regulatory system; as a consequence, from independence until 1999 the foreign investment amount was only $35 billion, which was lower than the annual foreign investment in China.[100]

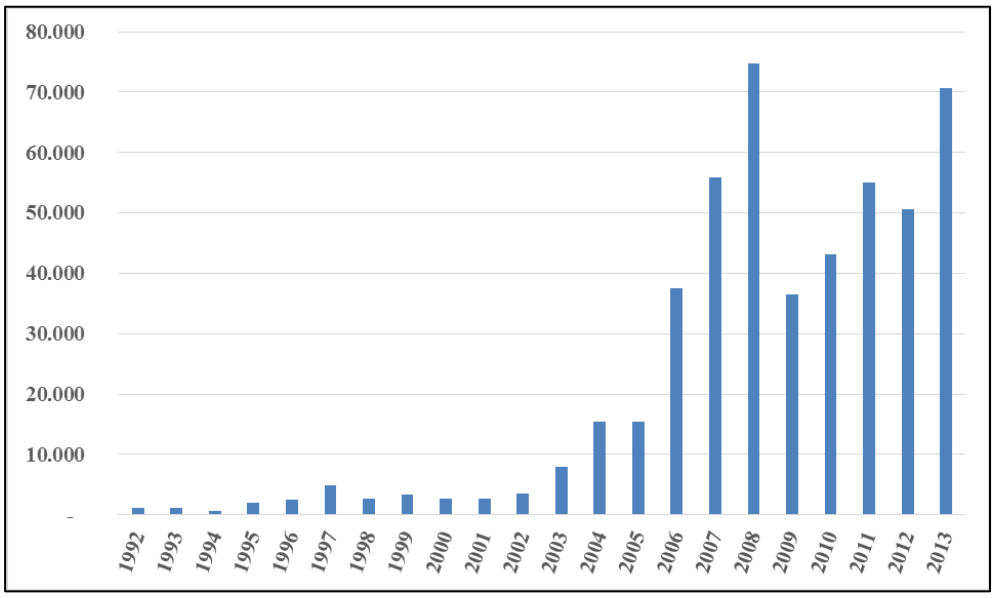

Figure 7. FDI, Net Inflows into Russia (1995- 2013) (In Millions)

Source: World Bank Website, Accessed on 30 September 2014, http://data.worldbank.org/indicator

Arguably, as shown in Figure 7, the foreign direct investment amount was increased significantly after 2000s; total amount exceed $490 billion between 1992 and 2013. In the Russian oil sector, although the PSA regime was introduced, the Royalty-Tax

[99] Strategic Fields are defined as oil fields with proven deposits of over 70 million tonnes of oil, (513 million barrels) taken from the website of Stratoil, accessed on 10 September 2014. <http://stratoil.wikispaces.com/Eastern+Siberia's+Oil+And+Gas+Development>.

[100] Arina Shulga. (2001) "Foreign Investment in Russia's Oil and Gas: Legal Framework and Lessons for the Future." *U. Pa. J. Int'l Econ.* L. 22. p.1068.

fiscal regime has a dominant role and there are two main taxes: the first one is the Minerals Production Tax, adopted in 2002, levied on the physical oil produced. The second is Export Duty, levied on the production exported from Russia. The other taxes that are applicable in Russia under this regime are income tax, value added tax, property tax, withholding tax, land polution tax and unified social tax.[101] Locatelli and Rossiaud state that the current fiscal regime in place is based essentially on revenue and not on profits and it is offering higher incentives to oil companies for producing recoverable oil from existing fields rather than committing themselves to the higher-risk investments.[102] Locatelli underlines the fact as:

> ...most of the fiscal burden is on producers. Because of this simple fact, a large part of the oil industry is unable to achieve sufficient cash flow after tax to finance its investments[103]

Ahrend and Tompson states the current tax system as;

> the Russian tax system, which provides little incentive to undertake exploration or investment in new fields with long payback times. Recent attention has focused on the very high marginal tax rates applied to the sector: the state now collects just close to $0.90 per barrel exported for each one-dollar rise in the international price above $25/bbl. Certainly, this reduces the ability of Russian oil producers to finance investment from retained earnings, but at current oil prices most Russian producers are still generating extremely large profits and there are good reasons for the state to want to capture the bulk of the windfalls arising from exceptionally high prices. ... However, the reliance on profit-insensitive taxes can render production from higher-cost fields unprofitable.[104]

The 2008 global economic crisis was testing the strength of the institutions in Russia; after reaching $147 per bbl oil price, a sharp price decline was realised, in line with the partial devaluation of Ruble, a drop in export revenues had caused budgetary problems; hence the Stabilisation Fund was used to heal the deficits Gel'man and Marganiya note.[105] During I have been writing this thesis, since July 2014, the oil

[101] IHS Energy Peps Database, "Russian Fiscal System", reached on 9 October 2013.

[102] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p. 5592.

[103] Catherine Locatelli. (1995) "The reorganization of the Russian hydrocarbons industry". *Energy Policy.* Volume 23. No. 9. p.818.

[104] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.24.

[105] Vladimir Gel'man and Otar Marganiya. (2010) "*Resource Curse and Post-Soviet Eurasia: Oil, Gas and Modernization*". USA: Lexington Books. p.67.

prices were decreased at 40 percent, which was five years lowest price for crude oil; hitting hard not only the Russian oil exploration projects but also the macroeconomic balance by devaluation of Ruble.[106] If the prices remain in that level for long periods of time, neither fund would be enough to cover such losses. Ahrend and Tompson mention that the perceived insecurity of property rights and the nature of the tax regime served to discourage long-term investments and cause overall instability of the fiscal framework.[107] Another major discouraging factor has been the level of corruption; Transparency Initiatives Corruption Index (2013) shows that in Russia corruption was high and it stood at the 127th place out of 175 countries.[108]

Accordingly the Moscow Times wrote that, every one out of three Russian officials are corrupt.[109] In this chapter the formal institutional development in the oil sector of Russia was presented. Although the formal institutions have been changed so dramatically since 1990s, Locatelli and Rossiaud states that all the investor companies in Russia have been experiencing the informal institutiton of bargaining, which was left over from the planned economy.[110]

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[106] Clifford Krauss, (2014). "Oil Falls to 5-Year Low, and Energy Companies Start to Retrench". The New York Times. 8 December 2014. Accessed on 10 December 2014.<http://www.nytimes.com/2014/12/09/business/energy-environment/oil-falls-to-5-year-low-and-companies-start-to-retrench-.html?_r=0>.

[107] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.22.

[108] Transparency International Website. (2014) Russia Data. Accessed on 3 October 2014. <http://www.transparency.org/cpi2013>.

[109] The Moscow Times. (2014) "Watchdog Says One in Three Russian Officials Is Corrupt", 9 December. Accessed on 3 January 2015. <http://www.themoscowtimes.com/business/article/one-in-3-russian-officials-is-corrupt/513033.html>.

[110] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model". *Energy Policy.* Volume 39. p. 5592.

CHAPTER 4

THE DEVELOPMENT OF INSTITUTIONS IN THE OIL SECTOR OF KAZAKHSTAN

The second biggest oil supplier of the Soviet Union and owner of many other natural resources, Kazakhstan was socially and economically interdependent with the Union. In her book *Kazakhstan: Unfulfilled Promise*, Olcott writes that although the national conciousness had increased during the Gorbachev years and political independence was demanded by some nationalities; Kazakhstan had never asked for independence from Soviet ruling but it was awarded rapidly and unexpectedly during a meeting of Soviet Republic leaders.[111] On 16 December 1991, Kazakhstan became an independent country. The first Secretary of the Communist Party of the Kazakh SSR Nursultan Nazarbayev, was elected as the nation's first president.

Like in other formerly Soviet states the economic breakdown was so severe and the dependence to Russia was so vital that, the Nazarbayev had embraced the oil sector's potential for generating cash. Hence the foreign investors were welcomed and the newly formed Kazakh government adopted new institutions for promoting the foreign capital and expertise in the oil sector. Similarly Ahrend and Tompson note that after independence, opposing to the Russian involvement into the political and economic sphere of the country, Kazakhhstan had welcomed western capital and technology.[112] Luong and Weinthal underline that Kazakhstan adopted P2 (Private Foreign Ownership) type of ownership strategy in the oil sector, soon after its independence.[113]

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[111] Martha Brill Olcott. (2010) *Kazakhstan: Unfulfilled Promise*. Carnegie Endowment for International Peace. Washington DC. p.16.

[112] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.26.

[113] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.18.

The Constitution of Kazakhstan was adopted on 28 January 1993[114] and Article 6 of the Constitution underlines that "...the underground resources shall be owned by the state and the land may also be privately owned on terms, conditions and within the limits established by legislation"[115] in which rights to use the subsoil were allowing the private capital owners but oil and gas properties are the exclusive property of the state.

Luong and Weinthal mention that after independence, initially the Kazakh state retained 90 percent of the main oil production enterprises like Mangistaumunaigas, Aktobemunaigas, Yuzhneftegaz; while remaining 10 percent were distributed to employees.[116] In following years Kazmunaygas sold the brownfields directly to foreign investors. Hence in 1994, Law on Foreign Investment was adopted in which gurantees mechanisms of contractual stability and dispute resolution to foreign companies[117] and a Program for development of extractive industry of Kazakhstan, which aims to increase the refining capacities, cover the domestic needs and enhance the volume of exported oil[118].

Nazarbayev introduced a new *Oil Law* dated 28 June 1995 and the Law *On Subsoil and Subsoil Use* dated 27 January 1996.[119] While the Subsoil Law sets out the basic framework for oil and mining operations in Kazakhstan, the Oil Law addresses only oil operations; they were amended in 1999, 2004, 2007, 2008; but both of them were

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[114] Martha Brill Olcott. (2010) *Kazakhstan: Unfulfilled Promise*. Carnegie Endowment for International Peace. Washington DC. p.96.

[115] Official site of the President of the Republic of Kazakhstan. (2014) Accessed on 18 September 2014. <http://akorda.kz/en/category/konstituciya>.

[116] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.261.

[117] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.263.

[118] Kazmunaygas Corporate Website. (2014) Accessed on 8 September 2014. <http://www.kmg.kz/en/about>.

[119] Baker Mckenzie Law Firm. (2014) "Doing Business in Kazakhstan". Accessed on 4 November 2014. <http://www.bakermckenzie.com>. p.79.

cancelled in connection with the adoption of the new *Subsoil Law* dated 26 June 2010.[120] The amendments in 1999 covered the elimination of the licensing and the acception of direct contracting; 2004 amendments covered the pre-emptive rights of the state for farming-in to projects; 2007 amendment covered the state's right to amend the terms and conditions of the contract, when there is a threat to the national security of the Republic of Kazakhstan: 2008 amendment covered the elimination of PSAs in country's oil sector which was only adopted in 2005.[121] The PSAs signed before the adoption of the amendment was remained in effect. The new *Subsoil Law* increased the priority of Kazakh state and made few changes in the former Kazakh administrative policy; one of the key changes was about the stablisation clause, where it was openly stated that stabilization is not covering changes to tax and customs legislation.[122] Lately the *Tax Code* was introduced in 2009; according to this Code, only PSAs entered before the adoption of the Code and subsoil concessions specially granted by the President had retained their fiscal regimes stable.[123]

A privitisation program was held in 1990s, which was copied from Russian policies, Pomfret notes.[124] Accordingly Luong and Weinthal underline that Kazakhstan transformed its property rights 100 percent from the Soviet type, when it chose to sell off the majority shares in its production, refining and export facilities to foreign investors in 1990s.[125]

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[120] Baker Mckenzie Law Firm. (2014) "Doing Business in Kazakhstan". Accessed on 4 November 2014. <http://www.bakermckenzie.com>. p.79.

[121] Baker Mckenzie Law Firm. (2014) "Doing Business in Kazakhstan". Accessed on 4 November 2014. <http://www.bakermckenzie.com>. p.80.

[122] Victor Mokrousov and Alexandra Neovius. (January 2011) "Kazakhstan's new Subsoil Law". Chadbourne & Parke LLP. Oil & Gas NewsWire. Accessed on 11.December 2014. <http://www.chadbourne.com >. p.14.

[123] Victor Mokrousov and Alexandra Neovius. (January 2011) "Kazakhstan's new Subsoil Law". Chadbourne & Parke LLP. Oil & Gas NewsWire. Accessed on 11.December 2014. <http://www.chadbourne.com >. p.14.

[124] Richard W. T. Pomfret. (2006) *The Central Asian Economies Since Independence.* New Jersey: Princeton University Press. p.40.

[125] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.259.

A national oil company, Kazakhoil was established on 4 March 1997, having the right to represent the interests of the state in all of the oil producing companies in Kazakhstan.[126] But the power of Kazakhoil was reduced gradually after the adoption of Decree 507 on 13 December 2000 and transferred to the reorganized Ministry of Energy and Mineral Resources and in the final stage, wholly cancelled with the adoption of Resolution 38 on 13 January 2001.[127] The Kazakh NOC KazMunayGas was established for the purpose to increase efficient and transparent development of oil and gas sector, to ensure a united state policy and to protect interests of Kazakhstani people, by the presidential Decree on 20 February 2002.[128] Kazmunaigaz was also given the task of overseeing a major licensing round, which began in 2003, involving over 100 blocks in the Kazakh sector of the Caspian shelf Ahrend and Tompson note.[129] This sectoral restructuring was needed because of the widespread corruption in 1990s, during the privatization process and policies towards energy and minerals rights Pomfret states.[130]

Like in Russia and Azerbaijan, Kazakhstan established a National Oil Fund by a Presidential Decree 402 in August 2000, which aims to diminish the country's budgetary dependence on fluctuations of world oil prices and to accumulate savings for the benefit of next generations.[131] It consists of two parts; stabilization and saving. At the end of 2013, it is said to be saved $71 billion in Fund's account.[132] Although Azerbaijan's Fund SOFAZ has a much more transparent management,

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[126] Kazmunaygas Corporate Website, (2014) Accessed on 8 September 2014. <http://www.kmg.kz/en/about/ history/chronology/>.

[127] International Law Office Newsletter date February 12 2001, Accessed on 5 August 2014, <http://www.internationallawoffice.com/newsletters/>.

[128] Kazmunaygas Corporate Website, (2014) Accessed on 8 September 2014. <http://www.kmg.kz/en/about/ history/chronology/>.

[129] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.30.

[130] Richard W. T. Pomfret. (2006) *The Central Asian Economies Since Independence*. New Jersey: Princeton University Press. p.6.

[131] The Sovereign Wealth Fund Institute. (2014) "Kazakhstan National Oil Fund". Accessed on 10 December 2014. <http://www.swfinstitute.org/swfs/kazakhstan-national-fund/>.

[132] Reuters. (14 February 2014) *Update 2- Kazakhstan's leader orders raid on oil fund to support growth*. Accessed on 29 September 2014, <http://www.reuters.com/article/2014/02/14/kazakhstan-president-fund>.

Kazakhstan redistribute the funds between the regions in the country, taking the poverty diversity into account and institutionalize limits on expenditures Luong and Weinthal say.[133]

Kazakhstan, with the help of increased foreign investment, oil production and increased oil prices after 1999, has been kept at least 9 percent GDP growth rate according to the World Bank databank.[134] Hence, Ahrend and Tompson states the extreme success of Kazakh approach toward attracting the foreign capital and getting the highest FDI per capita figures; accordingly, during 2001-05, net FDI inflows averaged around 10 percent of GDP, as compared with levels of 1.5- 2.5 percent in Russia.[135] From 1992 until 2013, Kazakhstan received $119 billion total FDI by the help of giant oil projects (See Figure 8).[136]

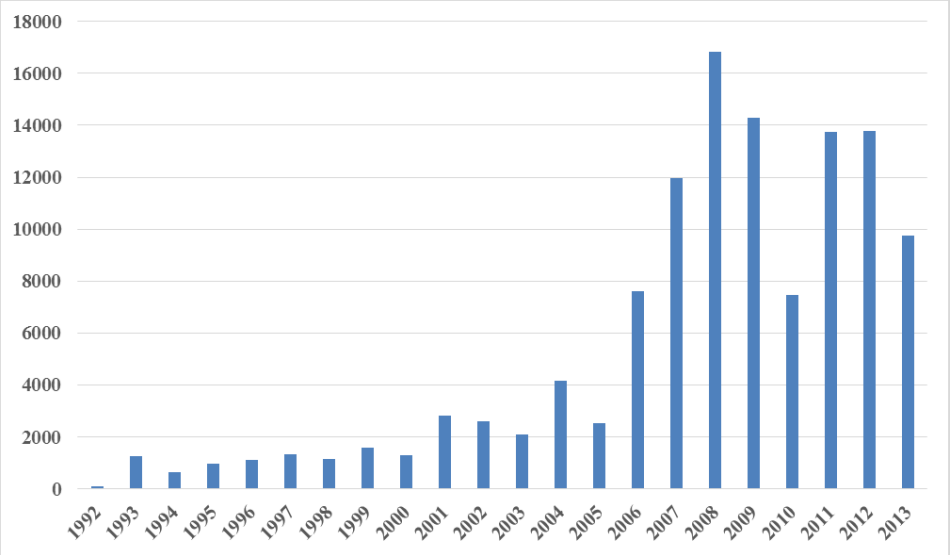

Figure 8. FDI, Net Inflows into Kazakhstan (1992- 2013) (in Millions)

Source: World Bank Website, Accessed on 30 September 2014, http://data.worldbank.org/indicator

[133] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.261.

[134] The World Bank, GDP Growth Rate Databank, Accessed on 1 October 2014, <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?page=2>.

[135] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.29.

[136] Invest in Kazakhstan Website. (2014) Accessed on 30 September 2014, <http://www.invest.gov.kz/>.

Kazakhstan's economy was the hardest hit in Central Asia by the 1998 Russian Crisis; but following a large devaluation of the currency and more importantly the upturn in world oil prices, Kazakhstan's economy began to grow rapidly after 1999. With the signature of big oil projects (Tengiz was signed on 6 April 1993 between Nazarbayev and the CEO of Chevron[137]; Karachaganak was signed in 1995 between Nazarbayev, the CEO of BG and ENI[138]), the foreign oil companies entered into the oil sector. Since then, they have been producing a large amount of oil in Kazakhstan (See Table 7).

Kazakhstan oil production rapidly increased from 2000 until 2010, at least 400 thousand bbl/d; after 2010 steady figure appears to dominate with ups and downs around 1700 thousand bbl/d according to BP (See Figure 9). After the price of oil increased, Kazakhstan changed the ownership structure to S2 (State Ownership without Control) type in its oil sector Luong and Weinthal underline.[139] By 2013 oil and gas fields in Kazakhstan have been explored and produced by more than 30 companies, where the government targets to increase investors and also production to 2.2 million bbl/d by 2030, Oil and Gas Minister Karabalin announced.[140]

[137] The Corporate Website of Tengizchevroil. (2014) Accessed on 10 December 2014. <http://www.tengizchevroil.com/about/milestones>.

[138] The Corporate Website of Karachaganak. (2014) Accessed on 10 December 2014. <http://www.kpo.kz/en/about-kpo/karachaganak-milestones.html>.

[139] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.18.

[140] Azernews Agency (29 May 2014) "Kazakhstan to develop hydrocarbon and electricity production". Accessed on 25 September 2014. <http://www.azernews.az/analysis/67530.html>.

Table 7. Ten Largest Oil and Condensate Producers in 2013

Table 1. Ten largest oil and condensate producers in 2013:

Company	2013, tonnes (cumulative)	2013 daily average, b/d*	2013 to 2012, %
Tengizchevroil	27,105,645	543,598	12%
Karachaganak Petroleum Op.	11,657,730	233,793	13%
KazMunayGaz	8,079,804	162,039	4%
Mangistaumunaygaz	6,076,840	121,870	3%
CNPC-Aktobemunaygas	5,863,048	117,582	-4%
Kazgermunay JV	3,107,002	62,310	-1%
PetroKazakhstan Kumkol Res.	2,407,720	48,286	-3%
Karazhanbasmunay	2,051,678	41,146	1%
Buzachi Operating Ltd.	1,990,762	39,924	0%
Turgay-Petroleum	1,655,391	33,199	-23%

(*converted from metric tonnes at 7.3 b/t). Source: Ministry of Oil & Gas.

Source: IHS Energy (2013) Kazakhstan Country Report. Accessed on 6 September 2014. <http://www.ihs.com/index.aspx>.

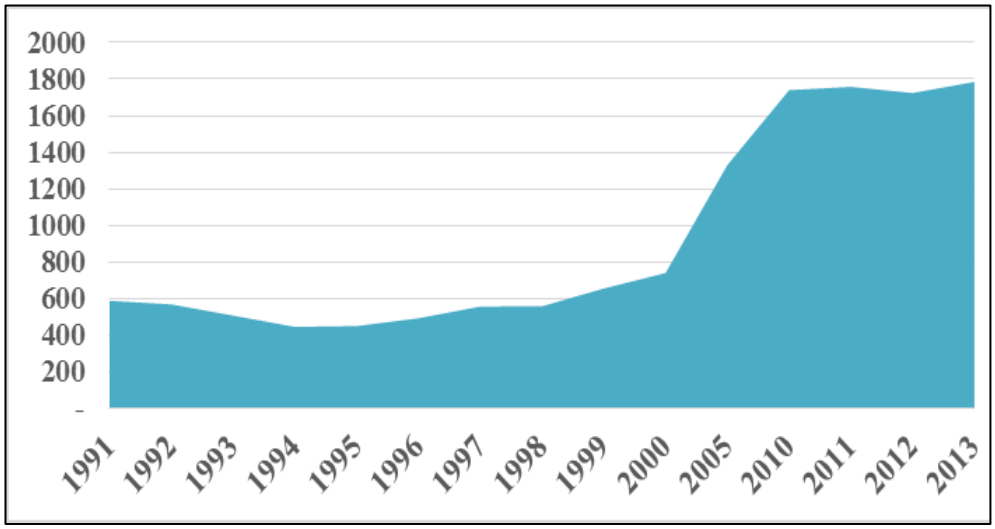

Figure 9. Kazakhstan Oil Production (1991- 2013) (Bbl/d)

Source: BP Statistical Review of World Energy 2014**.** Accessed on 5 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

Kazakhstan currently provides two types of contracting; Concession Agreements, and Service Contracts. Ironically, Sarsenbayev presents that until 1 December 2010 there have been 16 PSAs signed.[141]

[141] Kuanysh Sarsenbayev. (2011) "Kazakhstan petroleum industry 2008–2010: trends of resource nationalism policy?" *Journal of World Energy Law and Business*. Vol. 4. No. 4. p.378.

The production figure (See Figure 9), US Department of State summarised the confusion in the taxation environment in the oil industry as follows;

> In January 2009, Kazakhstan adopted a new *Tax Code* that lowered corporate-income (from 30% to 20%) and value-added taxes (16% in 2006 to 12% in 2009); replaced royalty payments with a mineral-extraction tax (MET), and introduced excess-profits and rent taxes on the export of crude oil and natural gas.
> Contracts for Tengiz, Kashagan, and Karachaganak include tax stability clauses that theoretically shelter the operating companies from changes to the tax code or customs regime. In 2008, the government determined that the Karachaganak contract provided it tax stability, but did not exempt the company from export duties. Under duress, the Karachaganak Petroleum Operating Company paid more than $1 billion in customs duties, which it contested through arbitration. In April 2008, Kazakhstan introduced a customs duty on crude-oil and gas-condensate exports. The government zeroed the customs duty rate in January 2009, but then it re-introduced it at a rate of $20 a ton in August 2010. The customs duty doubled to $40 a ton as of January 1, 2011.[142]

Kazakhstan taxation institution has been very volitile, as the volatility in oil prices. The Contractors in Kazakhstan in current fiscal regime have to pay not only huge and different amount of taxes (Royalty like Mineral Exraction Tax, Corporate Income Tax, Export Rent Tax, Excess Profits Tax, Withholding Tax, Export Duties) but also negotiable Bonuses (upon Signature, Discovery, Production). Mineral Extraction Tax is currently levied at rates of between 5 percent and 18 percent on the produced crude oil amount.[143] As stated above, an oil company would pay 20 percent Corporate Income Tax and 12 percent VAT currently. The foreign companies investing in Kazakhstan also faced with suspicious regional social spending funds which were non-transparent.[144]

The sustainable development of Kazakhstan's oil sector is blur because of the changes in fiscal policies; moreover, Luong and Weinthal underline that the size of Kazakhstan's informal economy has been growing; in 1998 it was accounted to 25 percent of GDP and in 2000 it reached 43 percent of GDP.[145] In parallel with the

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[142] US Department of State. (June 2012) Investment Climate Statement-Kazakhstan. *Bureau of Economic and Business Affairs.* Accessed on 8 October 2014. <http://www.state.gov/e/eb/rls/othr/ics/2012/ 191174.htm>.

[143] Baker Mckenzie Law Firm. (2014) "Doing Business in Kazakhstan". Accessed on 4 November 2014. <http://www.bakermckenzie.com>. p.45.

[144] US Department of State. (June 2012) Investment Climate Statement-Kazakhstan. Bureau of Economic and Business Affairs. Accessed on 8 October 2014. <http://www.state.gov/e/eb/rls/othr/ics/2012/ 191174.htm>.

informal economy, according to the Transparency Initiatives Corruption Index (2013) Kazakhstan had the 140th place and compared to 2005 data, where it was the 107th out of 159 countries, the level of corruption was detoriated in the country since 1991.[146] In this chapter the formal institutional development in the oil sector of Kazakhstan was presented. In the next chapter, the institutions of Azerbaijan will be analysed.

[145] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.48.

[146] Transparency International Corporate Website (2014) Kazakhtan Data. Accessed on 3 October 2014, < http://www.transparency.org/cpi2013>.

CHAPTER 5

THE DEVELOPMENT OF INSTITUTIONS IN THE OIL SECTOR OF AZERBAIJAN

This chapter's focus is Azerbaijan, locating in the heart of Caucasus and having rich oil reserves. During the war with Armenia, the indepence of the country was received unexpectedly. But the economy was crumbling, the negative effects of disintegration was reinforced by the hyperinflation and the war. With the increased oil prices and the reform policies adopted for attracting huge foreign investments, the upstream sector has been not only the driving force of the country's recovery; but also a tool for defending the territorial integrity.[147]

Under USSR ruling, Azerbaijan was one of the main oil supplier republics. Ciarreta and Nasirov states that Azeri oil production had reached 23.5 million tons in 1991, accounting for 71.4 percent of total oil output in the Former Soviet Union.[148]After the dissolution of Soviet Union in 1991, Azerbaijan faced with a decrease in oil production because of outdated technology, lack of investment in new drilling and rehabilitation of the existing wells.[149] During 1989–1994, GDP declined by about 63 percent.[150] Moreover, Ottaway underlines that 15% of the territory of the former Soviet Azerbaijan was in the hands of Armenia and tens of thousands of refugees were created.[151]

[147]Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.282.

[148]Aitor Ciarreta and Shahriyar Nasirov. (2010) "Impact of Azerbaijan's Energy Policy on the Development of the Oil Sector". *International Association for Energy Economics.* p.43.

[149]Aitor Ciarreta and Shahriyar Nasirov. (2010) "Impact of Azerbaijan's Energy Policy on the Development of the Oil Sector". *International Association for Energy Economics.* p.43.

[150]Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.282.

[151] Marina Ottaway. (2003) *Democracy Challenged: The Rise of Semi-Authoritarianism*. Carnegie Endowment for International Peace. Washington DC: The Brookings Institution Press. p.51.

According to the Article 14 of the newly adopted Constitution of Azerbaijan on 18 October 1991, the natural resources of the country belongs to Azeri people.[152] Hence, for serving this purpose, Luong and Weinthal underline that two NOCs of Azerineft and Azneftkimiya, which were set up for managing the oil exploration and extraction in the country, were merged into a new NOC named SOCAR in 1992 according to the presidential Decree adopted by the second president Azerbaijan, Abulfez Elchibey.[153] In the SOCAR's website, it states the corporate history as;

> Azerineft State Concern was established according to the Decree of the President of the Republic of Azerbaijan of December 3, 1991. On September 13, 1992, according to a Decree of the President of the Republic of Azerbaijan, SOCAR ...was established on basis of the Azerineft State Concern and Azerneftkimya Production Association in order to use oil resources in accordance with a consistent national policy, improve the management structure of the oil industry, and develop the energy industry.[154]

SOCAR was established as a state-owned, closed joint-stock company, who soon had the monopoly status in the oil sector. Ahrend and Tompson state that SOCAR has been both a party in all international consortia; and a negotiator in the name of government, trying to attract foreign players without compromising state control.[155] Ciarreta & Nasirov describe the regulatory environment in the oil sector as follows;

> The legal framework for the regulation of oil and gas contracts is based on the *Subsoil Act* of 13 February 1998 and the Energy Act of 24 November 1998. Although both these acts provide a general framework for exploiting energy resources, in many instances their provisions clash with each other...In order to improve the preparation and implementation of state policy on oil and gas production, the president of Azerbaijan signed a Decree on 15 May 2006 for the founding of the Ministry of Industry and Energy (MIE).
> SOCAR is thus charged with conducting commercial functions while the MIE is responsible for non commercial functions such as preparing, negotiating and implementing PSAs and other types of contract on behalf of the government. However, in reality, the MIE has been accorded only nominal responsibility for concluding PSAs.
> There is currently no legislation in Azerbaijan specifically governing the oil and gas sector. However, a draft law on oil and gas has been submitted to the parliament for approval. It is

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[152] Azerbaijan President's official website. (2014) Accessed on 31 October 2014. <http://en.president.az/azerbaijan/constitution#PEOPLE'S POWER>.

[153] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.224.

[154] SOCAR Corporate Website. (2014) Accessed on 12 September 2014, <http://new.socar.az/socar/en/company/about-socar/history-of-socar>.

[155] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.26.

> clear from the draft that the law will not be applicable to PSAs signed to date and will only apply to agreements signed in the future.[156]

As can be understood, the oil sector of Azerbaijan has been developed based mainly on PSAs, there were no other general legislation affecting the sector and the draft law was ceased at present.[157] Ciarreta & Nasirov state that Azerbaijan chosed to adopt PSAs because of being young state without enough financial capital and country's low credit rating, meaning that it was unable to get long-term loans from foreign credit institutions to fund its oil and gas projects.[158] Thus, as a transition country, Azerbaijan accepted to implement new contracts for securing the foreign investors; inline with implementation of an economic restructuring program and expansion of energy-economic ties with other countries. Luong and Weinthal underline that Azerbaijan adopted the S2 (State Ownership without Control) type of ownership strategy in the oil sector, soon after its independence.[159]

During these state-building efforts, in 1993 the former Communist Party leader, Heydar Aliyev came to power, supporting the foreign investors in the oil sector, signed the first PSA of Azerbaijan, "Contract of the Century".[160] Since then, the foreign investments have been received from the PSAs; until 2010, 32 contracts have been acted with foreign companies.[161] Hence, Azerbaijan Economy and Industry Minister Shahin Mustafayev states that, between 1995 and 2013 Azerbaijan received

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[156] Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.290.

[157] Baker Mckenzie Law Firm. (2014) "Doing Business in Azerbaijan". Accessed on 10 November 2014. <http://www.bakermckenzie.com>. p.82.

[158] Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.287.

[159] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.18.

[160] "The Agreement has been signed in Gulistan Palace of Baku on September 20, 1994 which was later named as the Contract of the Century due to its tremendous importance. Production Sharing Agreement related to the development of "Azeri – Chirag - Guneshli" deepwater oil fields has been reflected on 400 pages and 4 languages. 13 companies (Amoco, BP, McDermott, Unocal, SOCAR, LukOil, Statoil, Exxon, TPAO, Pennzoil, Itochu, Ramco, Delta) from 8 countries (Azerbaijan, USA, Great-Britain, Russia, Turkey, Norway, Japan, Saudi Arabia) have participated in signing of the Contract of the Century." taken from the Azerbaijan President's official website. (2014) Accessed on 31 October 2014. <http://en.president.az/azerbaijan/contract/>.

[161] Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.288.

$83,8 billion as foreign direct investments; in which $48,8 billion was to its oil and gas sector.[162] (See Figure 10)

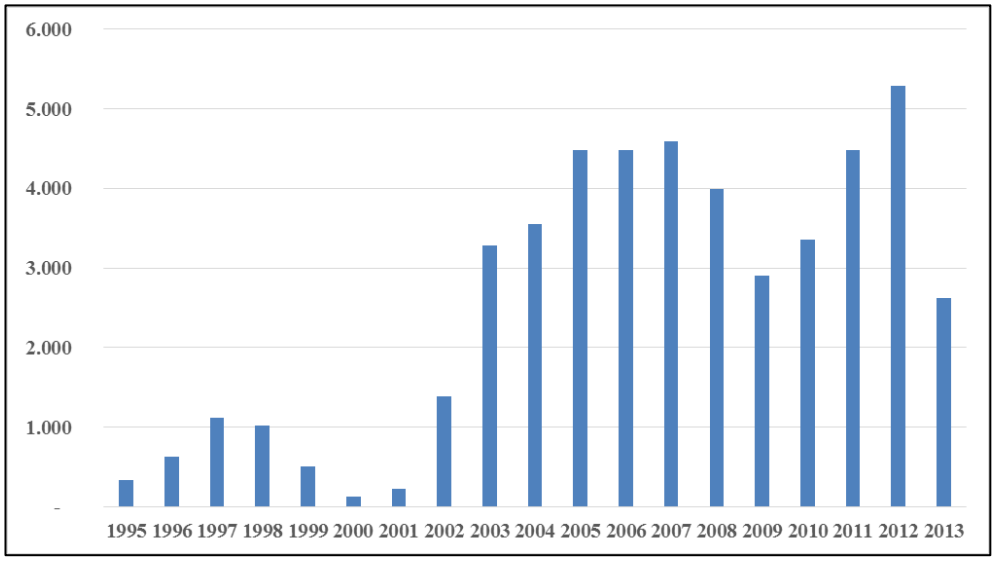

Figure 10. FDI, Net Inflows into Azerbaijan (1995- 2013) (In Millions)

Source: World Bank Website, Accessed on 30 September 2014, http://data.worldbank.org/indicator

As a part of the national oil strategy, the State Oil Fund (SOFAZ) was established for collecting the all oil and gas revenues and proper management of revenues by the Decree № 240 of Heydar Aliyev, dated 29 December 1999; Statute of the Oil Fund was approved by the Presidential Decree № 434, dated 29 December 2000.[163] The amount generated for future generations reached totally $37 billion in reserves as of the end of third quarter 2014.[164] SOFAZ, collecting all the revenues from the PSAs, have not received any tax payments which go directly to the State budget; has been an important source of public infrastructure projects.[165]

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[162] Trendnews, (16 July 2014) Accessed on 4 August 2014, <http://en.trend.az/business/economy/2294831.html >.

[163] State Oil Fund of The Republic of Azerbaijan Official Website. (2014) Accessed on 3 September 2014. <http://www.oilfund.az/en_US/about_found/history/uemumi-melumat. asp>.

[164] State Oil Fund of The Republic of Azerbaijan Official Website. (2014) Accessed on 3 September 2014, <http://www.oilfund.az/en_US/hesabat-arxivi/rublukh/2014_1/2014_1_3/>.

[165] Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.284.

Some people found this investments on projects ambigous. Relative to other oil-rich countries, Hasanov indicates that Azerbaijan has the worst position in expending the oil revenues.[166] However, Ciarreta and Nasirov underline that this fund has been supporting Azerbaijan's investment program aiming to fight with poverty, where they say:

> Large oil revenues allowed the government to achieve success in reducing poverty through continuously increasing in the minimum salaries and pensions under social transfer programs from SOFAZ, indicated by a drop in the poverty rate from 27% to just 2% today.[167]

As seen in Table 8, where the table is borrowed from Ciarreta and Nasirov, Azerbaijan enjoyed positive growth rates during 2000s and the oil and gas investments share in gross exports have been increased upto 93.1 percent in 2008. After Aliyev died, his son Ilham Aliyev came to power in 2003. The economic policies focusing on the foreign investment has been continued since then.

Table 8. Oil and Gas Sector in Azerbaijan, 2003-2009

Source: IMF, SSCA, CBA.[a]

	2003	2004	2005	2006	2007	2008	2009
GDP growth rate (%)	11.2	10.2	26.4	34.5	25	10.8	9.3
Share of oil & gas:							
Value added in GDP	27.5	29.0	42.2	50.8	53.7	52.7	42.0
In industry[b]	62.1	61.6	75.0	82.8	85.7	89.0	84.0
In gross export	85.7	82.7	86.5	92.2	94.2	93.1	90.7
In foreign direct investment	98.5	97.5	94.2	90.3	90.1	83.9	74.0

[a] SSCA stands for the State Statistics Committee of the Republic of Azerbaijan, and CBA stands for Central Bank of Azerbaijan.
[b] Extraction of crude oil and gas including refined petroleum products.

Source: Aitor Ciarreta and Shahriyar Nasirov. "*Development trends in the Azerbaijan oil and gas sector: Achievements and challenges*". Energy Policy. 40. (2012) p.283.

As the end of 2013 Azerbaijan had 7 billion barrels of proven recoverable reserves and the average daily oil production increased from the levels of 200 thousands in

[166] Fakhri Hasanov. (2013) "Dutch disease and the Azerbaijan economy". *Communist and Post-Communist Studies*. Volume 46. p.493.

[167] Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.283.

1991 (See Figure 11).[168] The bulk amount of the reserves are located in the Caspian Sea. Ciarreta & Nasirov state that the oil production exceeded 1 million bbl/day in 2010 for the first time in the country's history, with an increase of 14 percent on 2008.[169] In 2013, average oil production was 863 thousand bbl/day, 20 percent was from SOCAR; nearly 85 percent of Azerbaijan's total oil output was exported in 2013, mainly by Baku-Tiblisi-Ceyhan oil pipeline.[170]

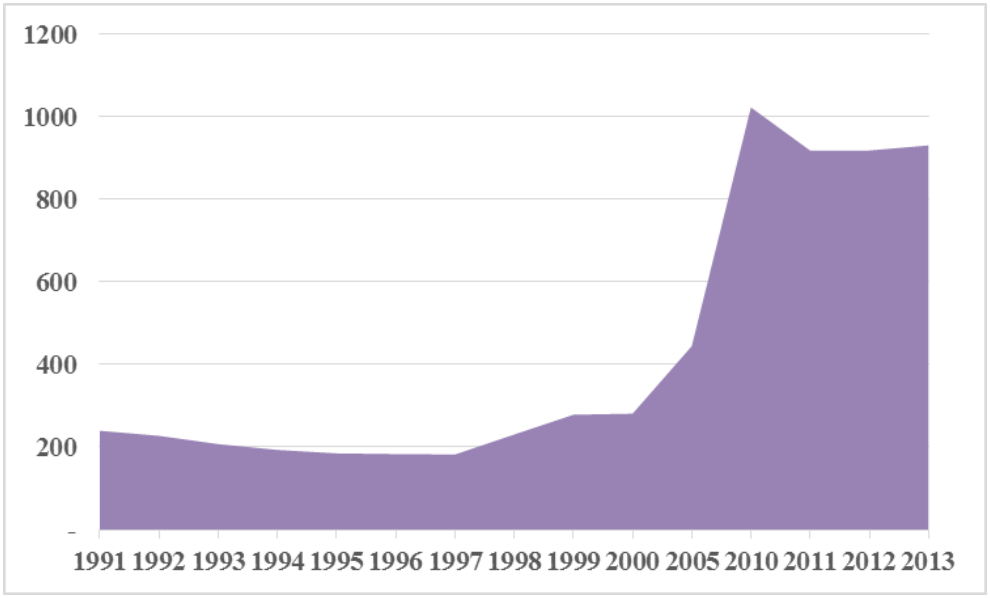

Figure 11. Azerbaijan Oil Production, (1991-2013) (Bbl/d)

Source: BP Statistical Review of World Energy 2014. Accessed on 13 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

The fiscal regime of PSA has many negotiable parameters inside. One of the non-negotiable factor is that, the operatorship given generally to a foreign technologically sophisticated company in exchange of a training package and secondment options for host country's employees. The contractors are not obliged to pay any royalty and additional profits taxes. Like in other PSAs in the world, the contractor pays different level of bonuses depending on the phase of the project (signature bonus, production

[168] BP Statistical Review of World Energy. (2014) Accessed on 3 May 2014. http://www.bp.com/en /global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

[169] Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.285.

[170] IHS Energy. (2013) Azerbaijan Country Report, Accessed on 7 September 2014. <http://www. ihs.com/index.aspx>.

bonus and discovery bonus), recovers its capital and operating costs if there is a commercial discovery and the profit petroleum is distributed between the government and the contractor based on a R factor (generally a ratio of cumulative revenues to cumulative expenses).

Unlike the other Caspian countries, the foreign contractor pays tax on profits between 25 – 32 percent in Azerbaijan. Taxes are paid via SOCAR, meaning that foreign oil companies have no direct relations with government tax authorities. Tax revenues are then transferred to the Tax Ministry of Azerbaijan by SOCAR. Each contractor pays tax on profits as per the legislation of the Republic of Azerbaijan on the taxing of profits, which came into force on 1 January, 1997. Table 9 lists main fields in Azerbaijan describing name of Operator, estimated investment, reserves, government share and taxes on contractors' profits. As can be seen in the table, the earliest projects in Azerbaijan encouraged foerign investors more; where SOCAR's bargaining power was the lowest.

Table 9. The main fields of Azerbaijan

Name of field	Operator	Estimated investment	Estimated reserve	Government share		Tax on contractor's profit (%)
				Min (%)	Max (%)	
ACG—signed 20.09.1994	BP	20 billion $	5.7 billion tons oil	30	80	25
Araz, Alov and Sharg—signed 21.07.1998	BP	4 billion $	300 million tons oil and 400 billion cubic meters gas	50	90	32
Shah Deniz—signed 04.06.1994	BP	10 billion$	1200 billion cubic meters gas	45	90	25
Ashrafi- Dan Ulduz—signed 14.12.1996	SOCAR	2.5 billion $	6 million tons oil and 25 billion cubic meters gas	50	90	25
Nakhchivan—signed 01.08.1997	RWE DEO	2 billion $	300 billion cubic meters gas	50	90	32
Inam—signed 21.07.1998	BP	3.5–4 billion$	100 million tons oil and 100 billion cubic meters gas	50	90	32
Karabakh—signed 10.11.1995	SOCAR	1.7 billion $	620 million tons oil and 5 billion cubic meters gas	50	90	25
Umid—new discovered	SOCAR	5 billion $	200 billion cubic meters gas			
Shafaq and Asiman—signed 13.07.2009	BP	–	500 billion cubic meters	50	90	32

Source: Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.288.

Like other Caspian countries, Azerbaijan's major challenge has been the excessive dependence of the economy on the oil sector Ciarreta and Nasirov state; the non-oil sector has been remained underdeveloped and fragile.[171] Although the high level of corruption, as an informal institution coming back from the Soviet times, has been the main obstacle on the economic development, the government established a state

[171] Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy*. Volume 40. p.282.

commission on anti-corruption measures. There has been a slow improvement on the level of corruption; Azerbaijan became to the 127th place in the Transparency Initiatives Corruption Index (2013), compared to the 130th out of 159 countries in 2005.[172] In the next chapter Turkmenistan oil sector institutional development will be analysed.

[172] Transparency International Corporate Website. (2014) Azerbaijan Data. Accessed on 3 October 2014. <http://www.transparency.org/cpi2013>.

CHAPTER 6

THE DEVELOPMENT OF INSTITUTIONS IN THE OIL SECTOR OF TURKMENISTAN

This chapter focuses on Turkmenistan's institutional development in oil sector. Being one of the Central Asian countries, Turkmenistan has been the most closed and controlled economy among the other Post-Soviet Caspian countries. Like the other Post-Soviet republics, Turkmenistan also did not have the heritage of democracy, multiparty politics, pluralism and a civil society Bassam underlines.[173] Besides, a tribally-based social structure was one of the social risks for Turkmenistan.

Saparmurat Niyazov was appointed as the President of Turkmen Soviet Socialist Republic in December 1985 before the Soviet Union's dissolution; afterwards he became the first President of the independent Turkmenistan in 21 June 1992.[174] Accordingly, calling himself "Turkmenbashi" (father of all Turkmens), giving importance to found the statehood around Turkmen nationalism, Niyazov was able to consolidate his power until his dealth in 2006.[175] Niyazov accepted the gradualistic reform approach toward the market economy Bassam asserts and the ideological vacuum created by the failure of Marxism-Leninism was filled by the "authoritarian modernization and evolutionary reform models with a nationalist spin" he underlines.[176] As an example, it is interesting to note that after the independence, Niyazov's government adopted a Soviet-like "free usage of gas, water, electricity and

[173] Kareem Al Bassam. (2003) *The evolution of authoritarianism in Turkmenistan*. Retrieved on April 25, 2013, from: http:// www.gwu.edu/~ieresgwu/assets/docs/demokratizatsiya%20 archive/05-03_albassam.pdf. p.387.

[174] Rafis Abazov. (2005) *Historical Dictionary of Turkmenistan.* Maryland; Scarecrow Press, Inc. p.117.

[175] Joachim Ahrens and Herman Willem Hoen et al.. (2013) *Institutional Reform in Central Asia: Politico-economic Challenges*. New York: Routledge. p.4.

[176] Kareem Al Bassam. (2003). *The evolution of authoritarianism in Turkmenistan*. Retrieved on April 25, 2013, from: http:// www.gwu.edu/~ieresgwu/assets/docs/demokratizatsiya%20 archive/05-03_albassam.pdf. p.395

salt" Decree in 1993 for the usage of the people for ten years then it was extended upto 2020[177] which make us think that this was one of the gradualistic policy elements of Niyazov and a populistic resource rent-division policy. Around his strong presidency and charismatic authority, there was a clear choice toward the continuation of state ownership not only in oil sector but in other main sectors as well.

After Niyazov, the authoritarian rule has been continued by the next President Berdimuhammedov since 21 December 2006.[178] Sabonis-Helf underlines that Turkmenistan chose to maintain its Soviet type governance and enthusiasm of OPEC for state ownership, state welfare, and state interventionism.[179] Luong and Weinthal underline that at the very beginning of independence, Turkmenistan adopted S1 (State Ownership with Control) type of ownership strategy in the oil sector; being the most Soviet similar system.[180]

The Constitution of Turkmenistan was adopted on 18 May 1992 and was amended several times in 1995, 1999, 2003, 2006 and 2008.[181] The latest amendment, adopted on 26 September 2008, brought big changes on Constitution, which was the abolition the legislative body of the 2500 membered Halk Maslahaty or People's Coucil and gave more power to the elected 25-member parliament, the Mejlis. [182]

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[177] FOX News Agency, (25 October 2006) Accessed on 23 October 2014. <http://www.foxnews.com/story/2006/10/25/turkmenistan-leader-promises-citizens-free-gas-electricity-and-water-through/>.

[178] PricewaterhouseCoopers. (2013) "Doing Business In Turkmenistan 2011- 2012". Accessed on 13 December 2014. p.2.

[179] Theresa Sabonis-Helf. (2004) "The Rise of the Post-Soviet Petro-States: Energy Exports and Domestic Governance in Turkmenistan and Kazakhstan" in Daniel L.Burghart and Teresa Sabonis-Helf Eds. *In the Tracksof Tamerlane: Central Asia's Path to the 21th Century.* Washington DC: Center for Technology and National Security Policy. p.165.

[180] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.18.

[181] PricewaterhouseCoopers. (2013) "Doing Business In Turkmenistan 2011- 2012". Accessed on 13 December 2014. p.2.

[182] Oleg Stalbovskiy and Maria Stalbovskaya. (June 2006) "A Research Guide to the Turkmenistan Legal System". *Global Law and Justice. Hauser Global Law School*. Accessed on 12 December 2014. <http://www.nyulawglobal.org/globalex/turkmenistan.htm>.

The Subsurface Law of 14 December 1992 was the first formal institutional development where Maulenov describes all the major developments as follows;

> …the Subsurface Law of 14 December 1992, the Hydrocarbon Resources Law of 30 December 1996, the Presidential Decree of 6 June 1997 on Implementation of the Hydrocarbon Resources Law, the Presidential Decree of 18 December 1998 on Licensing Arrangements for the Conduct of Petroleum operations in the Territory of Turkmenistan… Licensing of petroleum operations in Turkmenistan is touched on in Article 14 of the Hydrocarbon Resources Law, to the effect that natural resources found on the land may be exploited on the basis of a license, and the licensee may only carry out the operations stipulated in the license. Either a tender or direct negotiations are held before a petroleum license is issued... In Turkmenistan, direct negotiation is the preferred option. … Standard contracts drafted by the Turkmenistan government have been running since 1997...[183]

In this framework, Niyazov's state ownership choice was supported by the formation of major NOCs with a presidential Decree in 1996; Turkmenneft, Turkmengas, Turkmenneftegasstroy, Turkmenneftegas and Turkmengeologiya. Additionally, this Decree was abolishing the Ministry of Oil and Gas and forming a new Ministry of Oil and Gas Industry and Mineral Resources.[184] State ownership was emphasized by the Decrees. Likewise, Ahrend and Tompson state the property rights in Turkmenistan's oil sector as:

> The Turkmen system continues to be characterised by the predominance of state ownership of the means of production, restrictions on foreign exchange activities, widespread subsidies and an approach to, planned, development on the basis of import substituting industrialisation. While some privatisation has taken place, the authorities remain explicitly committed to maintaining the major productive sectors in state hands…[185]

However, the new Law on *Hydrocarbon Resources* adopted by Berdymukhammedov on 20 August 2008 had not only increased the State Hydrocarbon Agency's role, behaving the NOCs as subsidiaries of the Hydrocarbon Agency; but also established

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[183] Kassym S. Maulenov. (November 2008) "Legal Regulation of the Oil Business in the Turkmenistan, Uzbekistan and Kyrgyzstan". *Oil, Gas and Energy Law*. Special Edition. Volume 6. Issue 3 p.3-4.

[184] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.83.

[185] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.33.

a legal framework for the exploration, development and other activities related to the production of hydrocarbon resources in Turkmenistan.[186]

On the other hand, the foreign investor companies, like Bridas, who had entered into the country in early 1990s, ended up with arbitration. However, US Department of State mentions the upstream opportunities in Turkmenistan and presents the investment environment in oil sector for foreign companies as:

> Incoming foreign investment is regulated by the Law on Foreign Investment (last amended in 2008), the Law on Investments (last amended in 1993) and the Law on Corporations of 1999, with respect to start-up corporations, acquisitions, mergers and takeovers. Foreign investment activities are affected by appropriate bilateral or multilateral investment treaties, the Law on Enterprises of 2000, the Law on Business Activities (last amended in 2008), and the 2004 Land Code. Foreign investment in the oil and gas sectors is subject to the 2008 Petroleum Law. A foreign investor is defined in the law as an entity owning a minimum of 20 percent of a company's assets...[187]

On the institution of state oil funds, Sabonis-Helf states that even the supporters of funds have been against Turkmenistan's forming a national fund because of its potential non transparent nature political structure and potential negative effects on the general economy.[188] Unlike other countries, Turkmenistan did not receive huge foreign capital involvement in its economy; where the total foreign direct investment between 1995 and 2013 was only $23 billion (See Figure 12). However, the investment to the oil and gas sector was increased both by NOCs and by foreign investors according to Evaluate Energy database.[189]

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[186] Svetlana Dzardanova. (March 2010) "Resource Nationalism Trends in Turkmenistan, 2004–2009". RUSSCASP Working Paper. Accessed on 13 December 2014. <http://www.fni.no/russcasp/WP-Dzardanova-Turkmenistan.pdf>. p.22.

[187] US Department of State. (June 2012) Investment Climate Statement-Turkmenistan. Bureau of Economic and Business Affairs. <http://www.state.gov/e/eb/rls/othr/ics/2012 /191255.htm>.

[188] Theresa Sabonis-Helf, (2004) "The Rise of the Post-Soviet Petro-States: Energy Exports and Domestic Governance in Turkmenistan and Kazakhstan" in Daniel L.Burghart and Teresa Sabonis-Helf Eds. *In the Tracksof Tamerlane: Central Asia's Path to the 21th Century.* Washington DC: Center for Technology and National Security Policy. p.170.

[189] Evaluate Energy Country Profiles (2014) Turkmenistan Country Data. Accessed on 19 October 2014. <http://www.evaluateenergy.com/>.

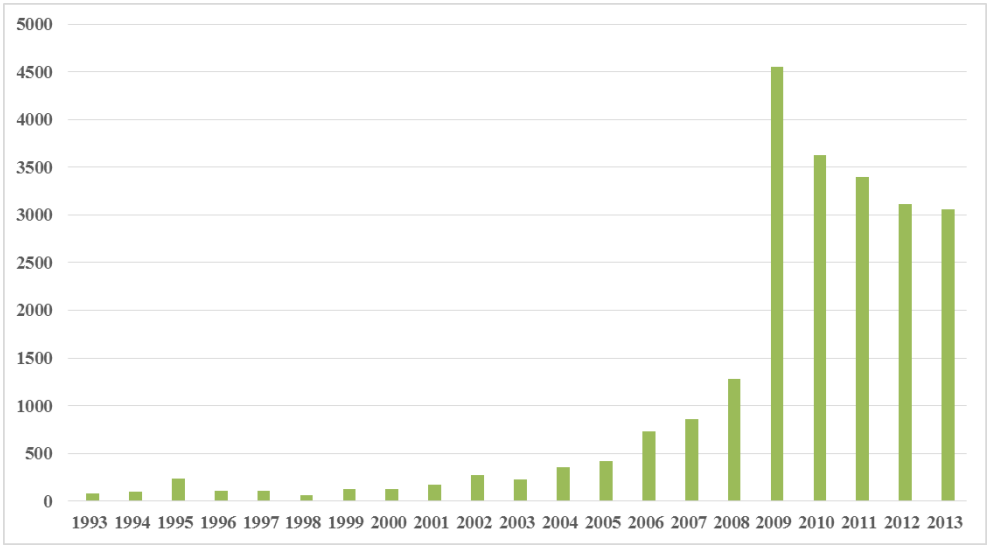

Figure 12. FDI, Net Inflows into Azerbaijan (1995- 2013) (In Millions)

Source: World Bank Website, Accessed on 30 September 2014, http://data.worldbank.org/indicator

Turkmenistan was one of the major gas and cotton suppliers of the Soviet economy. Oil has not been the priority commodity. Although the proven reserves of oil was 546 million barrels in 1998[190], the study of USGS shows that there was a great exploration potential, where the mean of the estimated undiscovered oil reserves was 6.8 billion barrels.[191] Moreover, Turkmenistan claims that the Caspian Sea contains 80.6 billion barrels of oil.[192] Ahrend and Tompson state that Turkmenistan has not been explored enough.[193]

Especially the Turkmenistan sector of the Caspian Sea because of the ongoing dispute between Iran, Azerbaijan, and Turkmenistan on the maritime boundaries. Additionally Turkmenistan, pursuing a Soviet-type policy, had launched a ten-year economic development plan as early as 1993, targeting the rapid exploitation of oil reserves.[194]

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[190] BP Statistical Review of World Energy. (2014) Accessed on 3 May 2014. http://www.bp.com/en /global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

[191] USGS Online Report. (2000) Accessed 12 October 2014, <http://energy.cr.usgs.gov/WEcont/ regions/reg1/r1turm.pdf>.

[192] EIA Country Analysis Brief: Turkmenistan. (2012) Accessed on 20 October 2014. <http://www.eia.gov/countries/analysisbriefs/cabs/Turkmenistan/pdf >.

[193] Rudiger Ahrend and William Tompson (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.31.

Currently Turkmenistan is producing 231 thousand bbl/d according to BP. Moreover, Turkmenistan's oil production has been rising after the independence although the institutional development has been limited (See Figure 13). Turkmenistan government released the Oil and Gas Development Plan for 2007-2030, setting oil and gas production targets for 2030; where 110 million tons of oil were projected to be produced and from that amount, 80 million tons of oil available for export.[195]

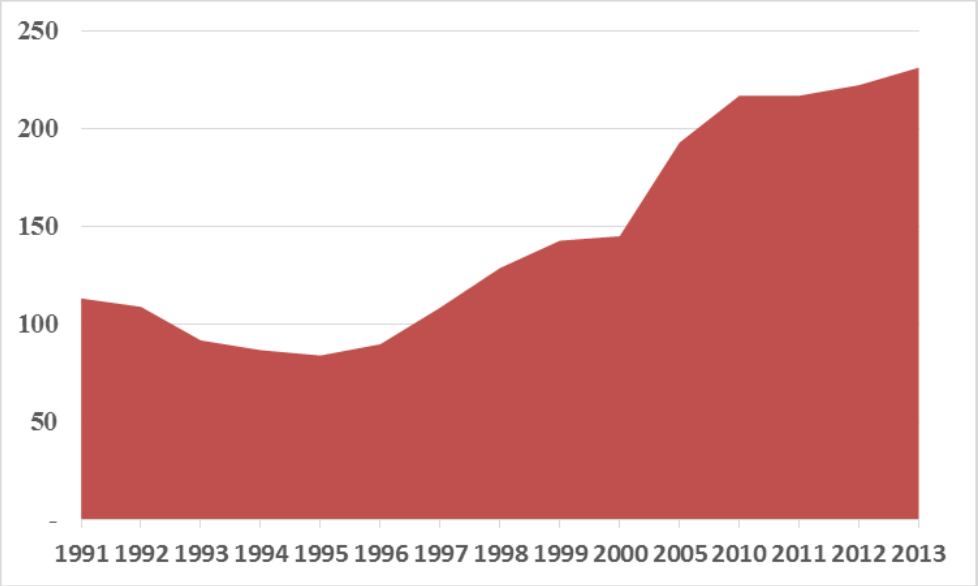

Figure 13. Turkmenistan Oil Production (1991- 2013) (Bbl/d)

Source: BP Statistical Review of World Energy 2014. Accessed on 10 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

[194] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.78.

[195] Wikileaks Webpage. (2006) "Turkmenistan's Ambitious 2007-2030 Oil And Gas Development Plan" Accessed on 13 November 2014. <http://www.wikileaks.org/plusd/cables/06ASHGABAT1150_a.html>.

Arınç and Elik mention that President Berdimuhammedov has been giving importance to the 2030 Oil and Gas Development Plan and accept it as a valuable policy guidance tool.[196] They note about the program as:

> The 2030 program explicitly states that the Caspian Sea shelf with be developed jointly with foreign companies through PSAs "under the supervision of Turkmenneft", the state oil company. The onshore priority regions for technical assistance service contracts are in western Turkmenistan (the Keimir area, Kum Dag, and Esenguly) and southeastern Turkmenistan (Dauletebad, Yashlar, the right bank of the Amu Darya, and Yoloten-Osman)...[197]

Like Russia and Kazakhstan, Turkmenistan had adopted two fiscal regimes at the same time in the oil sector which make investors confused; PSAs and Service Agreements. But, as Ahrend and Tompson state "the priority of the foreign investments under the PSA regime".[198] Currently there are three active onshore PSAs (Nebitdag-ENI, Khazar, Bagtyarlyk project -CNPC) and five active offshore PSAs (Block I- Petronas, Cheleken- Dragon Oil, Blocks 11 and 12- Maersk Oil and Wintershall, Block 23-RWE and Block 21- Itera).[199] IHS report shows that the PSA contractors currently are subject to negotiable Bonuses and negotiable Royalty rate applied on the physical oil production, Petroleum Income Tax of fixed 20 percent, recovery of averagely 60-70 percent of their costs, negotiable sliding scale profit sharing and although there was not an obligatory state participation, government made investors accept Turkmenneft as partner with a share of at least 20 percent.

Ahrend and Tompson note that although there have been policies for encouraging the investment, the companies evaluate Turkmenistan's insitutional environment negatively because of the "arbitrary state actions, high levels of corruption, poor infrastructure, a lack of export routes and heavy regulations".[200]

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[196] İbrahim Arınç and Süleyman Elik. (2010) "Turkmenistan and Azerbaijan in European Gas Supply Security". *Insight Turkey* Volume 12, No. 3. p.174.

[197] İbrahim Arınç and Süleyman Elik, (2010) "Turkmenistan and Azerbaijan in European Gas Supply Security". *Insight Turkey* Volume 12, No. 3. p.175.

[198] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.33.

[199] IHS Energy. (2013) Turkmenistan Country Report, Accessed on 10 September 2014, <https://my. ihsenergy.com/MenuPage.aspx>.

With high level of corruption, Turkmenistan had the 168th place in the Transparency Initiatives Corruption Index (2013), worser when compared to 2005 data where it was the 155th out of 159 countries.[201] From the third upto the sixth chapters, I have presented the oil sector insitutional developments in the Post-Soviet Caspian countries. The next chapter will provide a comparative assessment and my concluding remarks.

[200] Rudiger Ahrend and William Tompson. (2006) "Realising the Oil Supply Potential of the CIS: The Impact of Institutions and Policies". *OECD Economics Department Working Papers*. No. 484. p.34.

[201] Transparency International Corporate Website. (2014) Turkmenistan Data. Accessed on 3 October 2014. <http://www.transparency.org/cpi2013>.

A COMPARATIVE ASSESSMENT

Inspired by the book of Pauline Jones Luong and Erika Weinthal, reading the lines in the book of Groenewegen, Spithoven and Van den Berg; "countries who have well-defined property rights and well-defined institutional structure experience faster growth than those without"[202], understanding the gap from the words of Gel'man and Marganiya "...oil states of post-Soviet Eurasia are located in this underexplored and untheorized "gray zone""[203] and witnessing the variety of property rights and fiscal regimes all over the world; the Post- Soviet transition countries were interesting to analyse. Keeping the resource curse and transition economies literature aside, New Institutional Economics literature captured my interest.

The very first feature of the oil sector defined in introduction was uncertainty and compatibly Erbaş defines the roles of institutions and how institutions make the uncertainty "calculable" as;

> Institutions are social mechanisms that make outcomes more easily predictable and good institutions increase accuracy in prediction. Institutions facilitate the conversion of uncertainty into quantifiable risk. Thus, uncertainty becomes "priceable"—uncertainty is reduced and transactions costs decline, which promotes investment and growth. Institutions are longer lived than individuals and provide impersonal safeguards to ensure time-consistent treatment of investment decisions and contractual commitments made in the past. In other words, institutions reduce uncertainty over time.[204]

Institutions, being one of the components of economic development, have also been the anchors of investment in the oil sector. The main aim of this thesis was to analyse the post-Soviet development of the institutitons in the Caspian region, within the lenses of NIE, and to compare the output performance of these newly formed countries.

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[202] John Groenewegen, Antoon Spithoven and Annette Van den Berg. (2010) *Institutional Economics: An Introduction*. London: Palgrave MacMillan. p.62

[203] Vladimir Gel'man and Otar Marganiya. (2010) "*Resource Curse and Post-Soviet Eurasia: Oil, Gas and Modernization*". USA: Lexington Books. p.11.

[204] S. Nuri Erbaş. (July 2004) "Ambiguity, Transparency, and Institutional Strength", *IMF Working Paper*. WP/04/115. p.3.

After the collapse of Soviet Union and the destruction of the main Soviet institutions in 1991, fifteen newly independent states were generated and some of them were oil-rich developing countries; the biggest ones were namely Russian Federation, Kazakhstan, Azerbaijan and Turkmenistan. All of them found themselves in the same economic breakdown as Pomfret notes; "they suffered a sharp drop in real output during the first half of the 1990s, the impact of which on living standards was exacerbated by the cessation of intra-USSR transfers and by increased economic inequality"[205]. Moreover he underlines the need to create new national institutions.[206] Dallago and Iwasaki, however, state that the creation of institutions should not be a priority; because they would remain ineffective in the short term.[207] They define the need of right timing as;

> Institutions establish the rules of the game, define incentives to actors, and address their activity to productive, unproductive or even destructive ends. If institutional reforms are late to come, chances are that those who were able to inherit economic, political or social advantages from the position they occupied in the old system or took advantage of the first phase of transformation, unrestrained by institutions, will get windfall gains and conquer strategic advantages[208]

Some scholars argue that institutional building is a natural and unconscious outcome of actors in the market. Gel'man and Marganiya state both point of views as;

> While some institutions are established and caused by historical grounded and deeply embedded legacy, and their nature is path-dependent; other institutions are created "here and now" during the interaction of domestic and foreign economic and political actors. Their incentives in the process of institution building are primarily driven by the aspiration to utility maximization...[209]

[205] Richard W. T. Pomfret. (2006) *The Central Asian Economies Since Independence.* New Jersey: Princeton University Press. p.9.

[206] Richard W. T. Pomfret. (2006) *The Central Asian Economies Since Independence.* New Jersey: Princeton University Press. p.5.

[207] Bruno Dallago and Ichiro Iwasaki. (2007) *Corporate Restructuring and Governance in Transition Economies*. Basingstoke: Palgrave Macmillan. p.23.

[208] Bruno Dallago and Ichiro Iwasaki. (2007) *Corporate Restructuring and Governance in Transition Economies*. Basingstoke: Palgrave Macmillan. p.20.

[209] Vladimir Gel'man and Otar Marganiya. (2010) *Resource Curse and Post-Soviet Eurasia: Oil, Gas and Modernization*. USA: Lexington Books. p.6.

Luong and Weinthal state the countries' selection of the property rights in the oil sector as the most important choice of an oil-rich country, which shapes the incentives for subsequent institution building; particularly affecting the fiscal regimes and prospects for building state capacity and achieving long-term economic growth. This selection was shaped not only by the domestic politics or elite's cohorence to the initial allocation of revenues; but also by the international politics.
After the dissolution of Soviet Union, each of them adopted different ownership structures in their oil sector and retained the structure for at least a decade. As Table 10 below shows, Turkmenistan was an exception among the Soviet successor states because of its conservative, closed approach and its choice of ownership structure. It was the only one who retained the ownership structure it inherited from Soviet Union as Luong and Weinthal's classification; S1 (State ownership with control). The other three oil-rich countries adopted the other alternative forms; Azerbaijan adopted S2 (State ownership without control), Russian Federation pursued P1 (Private domestic ownership) and Kazakhstan opted for P2 (Private foreign ownership).[210]

Table 10. Summary Table of Ownerhsip Structures and Fiscal Regimes

	Luong's DYNAMIC OWNERSHIP STRUCTURES MODEL		NOCs	FISCAL TERMS		NATIONAL CURRENCY
	AFTER INDEPENDENCE	2005		AFTER INDEPENDENCE	2010s	
RUSSIAN FEDERATION	P1- Private Domestic Ownership	S1- State Ownership With Control	YES	PSA MODEL	ROYALTY/TAX MODEL	RUBLE
KAZAKHSTAN	P2- Private Foreign Ownership	S2 - State Ownership Without Control	YES	PSA MODEL	ROYALTY/TAX MODEL	TENGE
AZERBAIJAN	S2 - State Ownership Without Control	NO CHANGE	YES	PSA MODEL	PSA MODEL	AZERBAIJANI MANAT
TURKMENISTAN	S1- State Ownership With Control	NO CHANGE	YES	PSA MODEL	SERVICE AGREEMENTS + PSA MODEL	TURKMENISTANI MANAT

Source: Pauline Jones Luong & Erika Weinthal (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press and Author's own study.

All of the Post- Soviet Caspian oil-rich countries adopted new laws and regulations in their oil sector, National Oil Companies were established and as a necessary condition for their macroeconomic stability and effective economic reform, the national currencies were introduced. Although they pursued different type of

[210] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.18.

property rights in their oil sector and moved along different paths of development; after a decade, all of them turned out to adopt the state ownership model; which may be interpretted as a legacy of Soviet Union's central governance structure. This slipping to the state-ownership model could be explained by Luong and Weinthal; they underline the differences in transaction costs and societal expectations that were generated under each type of ownership structure and argue the main claimants (direct or indirect) to the oil revenues can either constrain or enable the state and its power for institutitonal building.

Soon after their independence, the international oil market prices replacing the artificial Soviet prices made all of these oil-rich countries feel the rent of the market economy; even though the allocation of the rent was not affecting the ordinary peoples' life. Especially after 2000s, the sky-rocketing oil market prices created a huge revenue inflow and created distortions in all of these oil-rich countries' governance structures. Both Kazakhstan and Russia who heavily relied on privatisation and private capital attraction into their oil sector in the first decade after their independence; adopted a new policy towards the oil industry after 2000s, targeting to expand the state's role in ownership and management of assets. On the other hand, increased oil prices triggered corruption in the society of all of the Post-Soviet Caspian countries. According to the Transparency Initiatives Corruption Index 2013, where more than hundred countries have been evaluated, Post- Soviet Caspian countries were listed below the 100^{th} in ranking.

The selection of property rights in the oil sector was also affecting the development of fiscal regimes in each of these countries from the early 1990s through 2010s. Luong and Weinthal classified the fiscal regimes from weak to strong, in terms of their ability to constrain and enable the state; where a weak fiscal regime consists of a tax system that is unstable, relying primarily on indirect- implicit taxation and system of expenditures that undermines budgetary stability and transparency; a strong fiscal regime consists of a tax system that is stable, relying on direct- explicit taxation and system of expenditures that emphasizes budgetary stability and

transparency."[211] For building a strong fiscal regime in macro point of view, good policies should be adopted, public spending decisions should be rational, the government should be able to respond commodity shocks effectively and excess revenues should be saved in stabilization funds. All of the Post-Soviet Caspian countries, except Turkmenistan, established stablization funds for their future generations and for economic shocks, as described in detailed before.

The S1 type, Turkmenistan, has a weak fiscal regime because it creates low transaction costs ("TCs") and high societal expectations. The P1 type, Russian Federation, fosters strong fiscal regimes because it generates high TCs and low societal expectation.[212] This assumption is explained by Luong and Weinthal as;

> Weak versus strong fiscal regimes are likely to emerge and persist under S1 and P1, respectively, because the incentives that each form of ownership structure fosters vis-a-vis institution building are reinforced by the process through which these institutions are created. Low TCs and high societal expectations under S1 foster the mutual desire to hide information from the public and thus encourage implicit bargaining, which not only increase opportunities for corruption but also reinforces personalism as the basis for allocating resources. In contracts high TCs and low societal expetations under P1 foster the mutual desire to reveal information to the public and thus encourage explicit bargaining which contributes not only to greater fiscal transparency but also accountability.[213]

The most important point about Russia is its controversial fiscal practices. In other types like S2 and P2, the fiscal regimes are hybrid and volatile. Thus, all of the Caspian countries were inherited weak institutions- most notably fiscal regimes.
In Table 11 and Table 12, the differences of the fiscal components in Post-Soviet Caspian countries are presented. Although the PSA regime in Russia and Kazakhstan has hardly ever been used; Fabry and Zeghni state the foreign investors' positive view and involvement in the Russian oil sector in 1997s because of the attractiveness

[211] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.9.

[212] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.12.

[213] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.13.

of the PSA regime.[214] Russia, however, left to sign PSAs in the last decade. Besides, huge taxes have been adopted in the oil sectors of both Russia and Kazahstan which make investors flew away.

Table 11. Fiscal Summary of the Oil Producing Eurasian States

	AZERBAIJAN	KAZAKHSTAN		RUSSIA		TURKMENISTAN
Fiscal Regime	**Mid 2000s Indicative PSA Terms**	**PSA Terms under 2002 Tax Code as Amended to November 2005**	**Royalty Tax Terms under 2008 Tax Code**	**Post-2001 PSA Terms**	**Post-2001 Royalty Tax Terms**	**PSA Terms (based on 1997 Model Contract & 2000 Guidelines)**
Contract Type	PSA	PSA	R/T	PSA	R/T	PSA
Bonuses/Other Payments	S*, D*, P (Oil)*, T*	S*, D*, F*	S, D, T*, F*	S*, P*	S*, D*, P*	S*, D*, P*, T*
State Participation	25%*	50%*	50%*	None	None	None
Royalty	None	Exempt	Oil: 5% - 18%; Gas: 10%	Minerals Production Tax (RUR/tonne * Price Coefficient - 50% of rate until field 80% depleted) Oil: approx 15% when oil price exceeds US$ 50/bbl; Gas: approx. US$ 0.14/Mcf in 2011 rising to US$ 0.25/Mcf in 2013	Minerals Production Tax (Oil: RUR/tonne * Price Coefficient * Depletion Coefficient) Oil: approx. 20% when oil price exceeds 50 USD/bbl; Gas: approx. 0.38 USD/Mcf in 2013 rising to 0.44 USD/Mcf in 2015 and to 0.52 USD/Mcf in 2015	3% - 15%*
Cost Recovery/Tax Depreciation	CRC (XPS); TAX (n/a)	CRC (XPS)*; TAX (Exploration: 10% db; Development: 10% - 20% db)	TAX (Exploration: XPS; Development: Tangible - 10% db; Intangible - 15% db)	CRC (XPS); TAX (n/a)	TAX (14 yrs)	CRC (XPS); TAX (Exploration: 2 yrs; Development: 4 yrs)
Cost Recovery Ceiling	100% (for OPX); 50%* of (PDN - OPX) (for CPX)	50% - 70%* of PDN	N/A	75%* of PDN	N/A	70%* of (PDN - ROY)
Contractor Profit Share	50% - 10%*	70% - 10%*	N/A	65% - 25%*	N/A	50% - 10%*
Income Tax Rate	PBS	30%	20%	20%	20%	20%
Additional Taxes	None	WTH (5%)*	Export Rent Tax (0% - 32%); Oil Export Duty ($60/tonne); Excess Profits Tax (0% - 60%); Property Tax (1.5%); Land Tax ($32.17-US$ 3,860/km2); WTH (15%)	VAT (18%)	VAT (18%); Export Duty (Oil - 58.89 USD/bbl; Gas - None - sold domestically to Gazprom); Property Tax (2%); Land Pollution Tax (0.1%); Unified Social Tax (21%); WTH (15%)*	None

Source: IHS Energy. (2013) Petroleum Economics and Policy Solutions Database. Accessed on 3 September 2014. < http://www.ihs.com/products/oil-gas/news-analysis/peps. aspx >.

Table 12. Comparison of the main fiscal parameters of PSAs in Caspian Countries

	Azerbaijan	Russia	Turkmenistan	Kazakhstan
Profit taxes	25%–32%	20%	20%	20%
Bonuses	Variable	Variable	Variable	Variable
Social security tax paid by employees	22%	26%	20%	4%
Excise duties	Not applicable	variable	Not applicable	variable
Royalties	Not applicable	16.5%	3–15%	0.5%–20%
Excess profit tax	Not applicable	Not applicable	Not applicable	0%–60%
VAT	Not applicable	18%	15%	12%
Property tax	Not applicable	2.2%	1%	1.5%
Land tax	Not applicable	Not applicable	Not applicable	Not applicable
Export duty	Not applicable	35%–65%	Not applicable	Not applicable

Source: Aitor Ciarreta and Shahriyar Nasirov. (2012) "Development trends in the Azerbaijan oil and gas sector: Achievements and challenges". *Energy Policy.* Volume 40. p.290.

[214] Nathalie Fabry and Sylvain Zeghni. (2002) "Foreign direct investment in Russia: how the investment climate matters". *Communist and Post-Communist Studies.* Volume 35. p.291.

From a different perspective, Mudambi and Navarra state the immobility of the institutions in oil market; where many of the factors of production are highly mobile; their main argument of them is the immobile nature of institutions affect the capacity of firms to interact, the transaction costs and competition between the fiscal systems.[215] All Caspian countries other than Turkmenistan, have been adopting policies for attraction of private capital into their oil sectors in 1990s, hence many companies have been invested actively in to these countries' oil sector. Lately, Turkmenistan has also been changing its strategy and trying to balance the foreign capital inflow into the country by investor diversification.

In the oil sector, the proved oil reserve figure (See Figure 14) shows whether a country has been exploring its resources and NOCs or private companies in that country have been able to discover oil successfully. These discoveries after the appraisal phases would turn into oil production ideally. Hence, Kazakhstan has been the most successful country in increasing its proved oil reserves, especially in 2007. Although there are many different numbers around Russia's proved reserves; if we take BP's figures in to account, there has been a gradual increase in proved oil reserves in Russia.

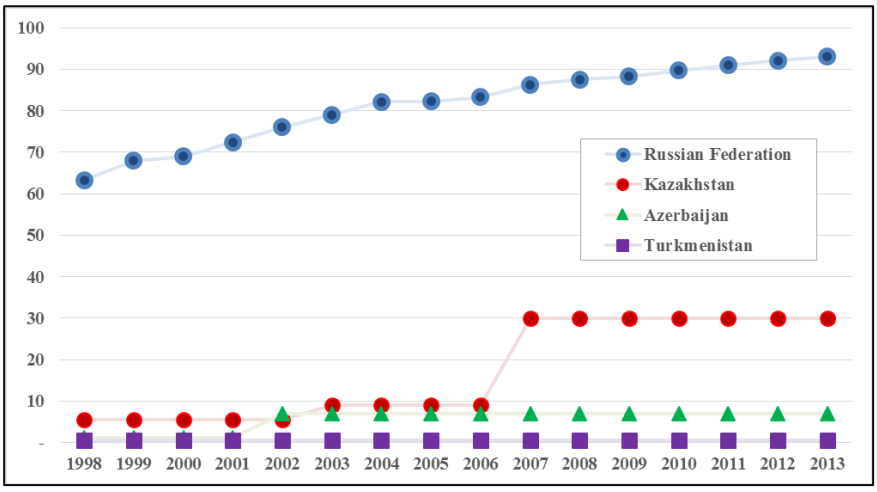

Figure 14. Change in Proved Oil Reserves (Thousand Million Bbls)

Source: BP Statistical Review 2014 and Author's own calculations. Accessed on 11 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

[215] Ram Mudambi and Pietro Navarra. (2002) "Institutions and internation business: a theoretical overview" *International Business Review*. No 11. p. 636.

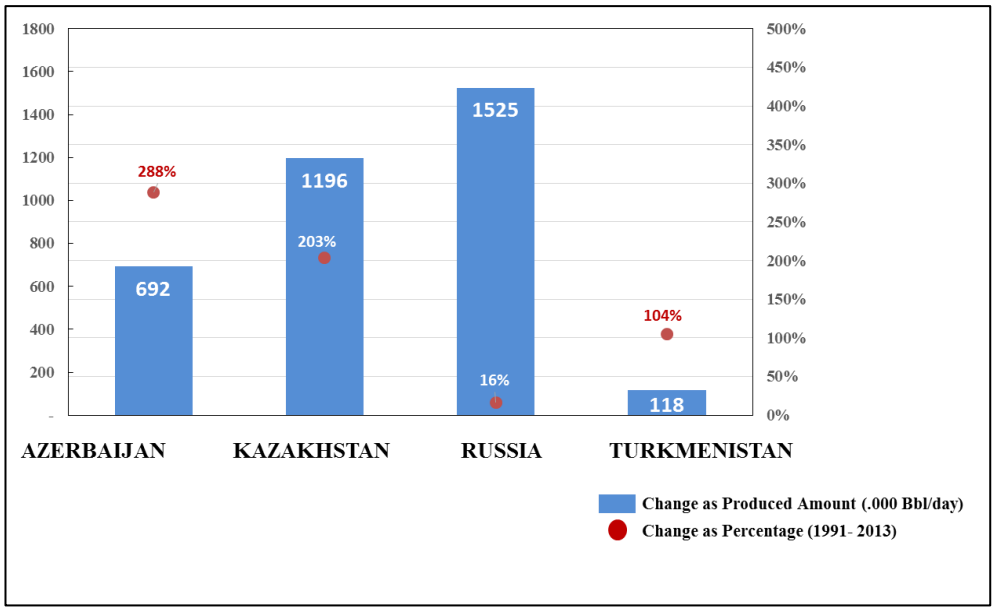

Figure 15. Change in Oil Production (1991-2013)

Source: BP Statistical Review 2014 and Author's own calculations. Accessed on 15 May 2014. <http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>.

Analysing the changes in oil production from 1991 to 2013 in Figure 15, the highest production growth as percentage was performed by Azerbaijan and secondly by Kazakhstan. Although Russia reached a higher growth in daily produced amounts, the percentage change was only 16 percent in Russia. Turkmenistan has been the worst performed country, both as percentage and amount of increase. Azerbaijan has been the most successful country who welcome the foreign investors with favorable fiscal terms and smooth changes in its ownership model. Although Kazakhstan has lived growth in its oil production, the tax practices of the government has disturbing the investors.

Oil wealth of a country can produce negative consequences; but the explanations in the resource curse literature has not been covering the institutions. Aslaksen describes the occurrence of the resource curse overtime; after a resource discovery, in the short-run a resource-rich country experiences higher income and the economy might benefit; however this creates a false sense of security and the authorities diverge from the growth strategies, misuse the resource revenues; in the long-run the

income growth become lower.[216] However, Gel'man and Marganiya claim that the strong institutions serve as a kind of barrier to the effects of the resource curse; whereas weak institutions serve to aggravate them.[217] The institutions are endogenous to oil wealth according to NIE literature, diversified from resource curse literature.

Luong and Weinthal state that, oil-rich countries are "cursed" because they do not possess the "right" set of institutions. The right set of institution building is a hard task to achieve because of the elites' practices, the explanation is as follows;

> This is because either such institutions did not exist prior to an export boom, and the state elites have no incentive to build them once they start to reap the benefits of their wealth or if such institutions did exist before the export boom, state elites would have a strong incentive to dismantle or undermine them.[218]

Accordingly, they also state that the success of one country is widely attributed to strong political and economic institutions, including a legislature that exercises control over the budgetary process, an insulated and autonomous technocracy committed to long-term developmental goals and "institutions of private property".[219]

On the other hand, according to Williamson all governance structures are flawed and compromises are necessary. Locatelli and Rossiaud find "developing an oil model that is coherent with the country's institutional environment" as the most difficult challenge.[220]

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[216] Silje Aslaksen. (2007) "On the economics of natural resources and institutions". Doctoral theses at NTNU: 171. p.3.

[217] Vladimir Gel'man and Otar Marganiya. (2010) *Resource Curse and Post-Soviet Eurasia: Oil, Gas and Modernization*. USA: Lexington Books. p.7.

[218] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.2.

[219] Pauline Jones Luong & Erika Weinthal. (2010) *Oil is Not a Curse: Ownership Structure and Institutions in Soviet Successor States*. Cambridge Studies in Comparative Politics. London: Cambridge University Press. p.3.

[220] Catherine Locatelli and Sylvian Rossiaud. (2011) "A neoinstitutionalist interpretation of the changes in the Russian oil model", *Energy Policy.* Volume 39. p.5595.

Pomfret states that both the greatest uncertainty and also the potential opportunity for institutional development, has been the changes in the political regime, affecting all the sectors in the economy; thus by 2000s most of the post-Soviet countries had established presidential systems with concentrated power in their hands.[221] The increased government revenues caused by the oil prices, as Andersen states, have strong effects for the government expenditures when the form of government is presidential; but not when it is parliamentary; however, the fiscal regime might be more volatile when the form of government is presidential.[222]

Gel'man and Marganiya question the pendulum-like swing development of the oil-rich post-Soviet Caspian countries as;

> ... Eurasia transformed in a manner of pendulum-like swings. At the end of the 2000s, the results of two decades of the transformation in oil-rich countries of post-Soviet Eurasia looks rather contradictory.....Despite a certain improvement in a number of socioeconomic indicators of development during the 2000s, the quality of governance, indicators of rule of law, the protection of property rights and economic freedoms remained in all countries of Post-Soviet Eurasia at an extremely low level throughout the entire period of two decades of transformation, against the background of an increase in corruption in these countries.[223]

However, solely from the eyes of the private investors, Van Assche and Schwartz state the hardship of decision-making and adoption of the right investment structure in post-Soviet Caspian countries.[224] As a concluding remark, the institutional development has still been enduring in the Post-Soviet space; if Williamson's term is borrowed, the "defining moments"[225] have been continuing...

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[221] Richard W. T. Pomfret. (2006) *The Central Asian Economies Since Independence.* New Jersey: Princeton University Press. p.22.

[222] Jørgen Juel Andersen, **(**2011) "The form of government and fiscal dynamics", *European Journal of Political Economy.* Volume 27. p.307.

[223] Vladimir Gel'man and Otar Marganiya. (2010) "*Resource Curse and Post-Soviet Eurasia: Oil, Gas and Modernization*". USA: Lexington Books. p.2.

[224] Ari Van Assche and Galina A. Schwartz. (2013) "Contracting institutions and ownership structure in international joint ventures". *Journal of Development Economics*. Volume 103. p.124.

[225] Williamson used this term in 2000, for the newly formed states' departures from centrally planned economies, the threat of financial crisis, breakdown of political order and re-evaluation of social values.

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APPENDICES

A. TURKISH SUMMARY

Ülkelerin sürdürülebilir ekonomik gelişimi, kurumsal yapılanma ve sağlıklı işleyen, kaliteli kurumlar ile yakından ilgilidir. Uzun yıllar boyunca yüksek miktarlarda yatırım ve teknik bilgi sahibi kaliteli işgücü gerektiren petrol sektörü için ise kurumlar ayrıca önem arz etmektedir. Yüksek riskli ve özel bir yapıya sahip olan petrol sektöründe, ana yatırımcılar her ne kadar milli petrol şirketleri olsa da, yerli ya da yabancı özel yatırımın sektöre çekilmesi çok büyük önem arz etmektedir. Yatırımcılar proje karlılığını analiz ederken neoklasik makroekonomik verilerin yanı sıra ülkelerin kurumsal gelişimini de incelerler. Literatürde, ülkelerin ekonomik gelişiminde petrol zenginliğinin rolü tartışmalıdır. Başlarda petrol kaynağının varlığı müspet olarak değerlendirilse de, 1970'ler ve sonrasındaki petrol krizlerinden sonra "petrol" kelimesi ile "lanet" kelimesi eşdeğer kullanılmaya başlanmıştır. Geniş kabul gören ve zengin yayın tabanına sahip "kaynak laneti" literatürü, aslen makroekonomik verileri temel alarak analizlerde bulunmuş ve formel kurumları yok saymıştır. Buna karşın Yeni Kurumsal İktisat ("YKİ") yaklaşımı, petrol sahibi ülkelerin makroekonomik gelişimlerinin yanı sıra, kurumları ve bu kurumların gelişimlerini de esas alan çalışmalarda bulunmaktadır.

Altmış dokuz yıl Sovyetler Birliği yönetimi altında kapalı kalmış olan Sovyet sonrası petrol üreten Hazar ülkeleri, bir geçiş dönemi yaşamaktadırlar. Sovyetler Birliği'nin 1991 yılında dağılmasından sonra Hazar Denizi çevresinde konumlanmış petrol zengini ülkeler bir bir bağımsızlıklarını kazanmış ve yeni devletlerini inşa etme yarışına girmişlerdir. Doğal olarak, akademisyenler için çok ilginç bulunan bu ülkeler hakkında birçok makale yayınlanmaya ve analizler yapılmaya başlanmıştır. Ortak Sovyet merkezi yönetim sistemine, kurumsal ve ekonomik yapılanmasına sahip olan petrol zengini bu Hazar ülkelerinin değişimleri merak konusu olmuştur. Bu kapsamda bir merakla yola çıktığım tezimde, YKİ yaklaşımı çerçevesinde, kurumsal yapılanmanın, Sovyet sonrası Hazar ülkelerinin petrol sektörlerindeki gelişimlerini ve petrol üretimlerini nasıl etkilediği, iki ana formel kurum olan

mülkiyet hakları (sahiplik yapısı) ve mali rejimleri ekseninde değerlendirilmektedir. Genel bir giriş bölümünden sonra, ikinci bölümde YKİ teorisinin genel yaklaşımları ve Sovyet sonrası geçiş ekonomileri özelindeki yaklaşımlar incelenmektedir. Üçüncü bölümden altıncı bölüme, bu ülkelerin kurumsal gelişimi tek tek değerlendirilmektedir. Sonuç bölümünde, tezin bulguları karşılaştırmalı olarak sunulmaktadır.

Giriş bölümünde bu tezde kullanılan petrol sektörünün içeriği açıklanmış, sektörün temel özellikleri, sektördeki yatırımları etkileyen dış faktörler ve sektördeki değişim eğilimleri kısaca sunulmuş; ardından Hazar ülkeleri üretim tarihçesi verilerek, kaynak laneti literatürünün bakış açısı özetlenmiştir. Petrol sektörü ile bu tezde kastedilen geniş bir değer zincirine sahip olan bir sektörün sadece arama ve üretim kısmıdır. Şekil 1'de görüleceği gibi arama ve üretimin, risk ve getirisi çok yüksektir. Bu kapsamda bu sektörün birinci özelliği belirsizliklerin yüksek olmasıdır. Bu alanda yatırımcı olan şirketler, uzun dönemli vizyonları ve risk iştahlarına paralel olan stratejik amaçlarını belirler ve büyüme alanlarını tanımlayarak buna yönelik projelerin teknik, politik ve ekonomik analizlerini gerçekleştirir. Nihai amaç uygun görülen projeyi almaktır. Sektörün ikinci önemli özelliği proje bazlı ve fazlara sahip olmasıdır. Şekil 2'de bir petrol projesinin kaynak erişiminden başlayarak, sırasıyla arama, tespit, geliştirme, üretim ve terk aşamalarından geçtiği görülmektedir. Burada en büyük para çıkışı projenin geliştirme döneminde gerçekleştiği, ancak ilk petrol üretimi ile yatırım yapılan miktarın geri dönmeye başladığı görülmektedir. Petrol projeleri uzun dönemlidir; normal şartlarda arama fazı en az 3 yıl, geliştirme fazı en az 7 yıl ve üretim fazı ise en az 20 yıl sürmektedir. Bu uzun süreçte, birçok dış etken yatırımları etkilemektedir. Bunlardan en önemlisi petrol fiyatlarının oynaklığıdır. Şekil 3'te 1990 yılından itibaren Brent petrol fiyatları FOB olarak verilmiştir. Görüldüğü üzere, çok değişken olan fiyatlar, şimdi ve gelecekteki üretim maliyetleri ve satış fiyatlarında belirsizlik yaratmaktadır. Yatırımları etkileyen diğer bir dış etken ise projenin bulunduğu evsahibi ülkenin politik ve mali rejimlerindeki olası değişimlerdir. Her ülke yönetimi, ilk olarak kaynaklarının sahiplik yapısını belirler. Bu karara bağlı olarak yatırımcılar milli petrol şirketleri ya da özel yatırımcılar olabilir. Evsahibi ülkelerin yöneticileri, faaliyetten doğabilecek zararları, yabancı şirketlere yüklemeyi tercih ederler. Sektörde yabancı şirketler ile yapılan dört farklı tipte anlaşma mevcuttur: Üretim Paylaşım Anlaşmaları (ÜPA), İmtiyaz Sözleşmeleri,

Risk Servis Sözleşmeleri ve Ortaklık Sözleşmeleridir. Her bir anlaşma tipinde yatırım projesi, evsahibi ülkenin mali ve politik değişimlerinden farklı oranda etkilenir. Bu sözleşmeden sözleşmeye göre değişir, ancak genel çerçevesi ile Üretim Paylaşım Anlaşmaları yabancı yatırımcıları en çok teşvik eden, iç mevzuat değişimlerinden koruyan bir tip kontrattır.

Petrol sektörünün kendisi de sürekli değişim içerisindedir. Hubbert tarafından ortaya atılmış olan petrolün zirvede olduğu teorisi her geçen gün yeni keşiflerle çürümektedir. Küresel petrol rezervleri, Oil and Gas Journal'e göre 2012 yılında 115 milyar varil artarak, 1 Ocak 2013 tarihi itibarıyla 1,6 trilyon varil'e ulaşmıştır. Buna bağlı olarak üretim de artma eğilimindedir. Ankonvansiyonel kaynakların keşfi ile küresel rezerv klasifikasyonu da yukarı yönlü olarak yenilenmiştir. Tablo 1 ve Tablo 2'ye göre dünyada ve Avrasya'da en büyük üretici ülke, ortalama 10,6 milyon varil/gün ile Rusya'dır. Bölgedeki diğer petrol üreten ülkeler sırasıyla Kazakistan, Azerbaycan ve Türkmenistan'dır. İran, petrol sahibi bir Hazar ülkesi olmasına rağmen, Sovyet geçmişi olmadığından bu tez kapsamı dışında tutulmuştur. Sektörel gelişmelerden bir diğeri ise yatırıma olan açlığın sürekli artmasıdır. Yüksek teknoloji gerektiren operasyonlar, rezervlerin fiziksel olarak zor ulaşılabilir yerlerde (Kutuplar, derin denizler) bulunması sebebi ile, kesintisiz arzı uluslararası piyasaya temin edebilmek için sektörde daha fazla yatırıma ihtiyaç duyulmaktadır.

Kaynak laneti literatürü, petrol zengini gelişmekte olan ülkeler için fazla bulunan petrol kaynaklarının ülke ekonomisi ve genel refah için bir lanet olduğunu söylemektedir. Bu terim, birçok farklı şekilde açıklanabilir. Ancak genel kabul göreni, Corden ve Neary'nin 1982'de yayınladığı yayınındaki "Hollanda Hastalığı" açıklamasıdır. 1960 yılında Kuzey Denizi'nde keşfedilen gaz yataklarının Hollanda ekonomisi üzerinde yaratmış olduğu menfi etkilerden adını almıştır. Bu görüşün aksine Brunnschweiler ve Bulte, 2007 yılında yayınladıkları makale ile, kuvvetli anayasa ve kurumları olan ülkelerde kaynak bolluğunun ekonomiyi pozitif etkileyeceğini ileri sürmüşlerdir. Ancak birçok yazara göre Sovyet sonrası petrol zengini Hazar ülkeleri zayıf kurumsal mirasa sahiptirler. Sovyetler Birliğince ekonomik bağımlılık esasında kurulmuş olan sistemin değiştirilmesi, bu yeni kurulmış petrol zengini ülkelerin yaşadığı en büyük zorluk olmuştur. Petrol sektöründe aynı Sovyet merkezi planlama sistemi ve yönetim modeli miras kalmış

olmasına rağmen, bu ülkeler son yirmi yılda mali rejimleri ve sahiplik yapısı bakımından oldukça farklılaşmıştır. Luong ve Weinthal, kaynak lanetinin kader olmadığını; aksine petrol zenginliğine sahip ülkelerde ekonomik gelişimin, bu zenginliğe bağlı olarak değil, sektörde oluşan sahiplik yapısı, buna bağlı işlem maliyetleri ve mali rejim gibi formel kurumlara bağlı olarak değişmekte olduğunu savunmaktadırlar. Kaynak laneti, mülkiyet haklarını sabit kabul etmekte; YKİ ise değişken olarak almaktadır.

İkinci bölümde Yeni Kurumsal İktisat yaklaşımına ilişkin literatür taraması yapılmıştır. YKİ'nin öncüleri kabul edilen North ve Williamson'un kurumların niçin önemli olduğu yönündeki bilimsel katkıları sunulmuş ve YKİ'nin geçiş ekonomilerine yaklaşımları irdelenmiştir. Neoklasik iktisada göre kurumlar analizlerin dışında tutulmaktadır. Çetin, YKİ'nin iktisadın yanı sıra hukuk, politika, sosyoloji gibi alanlarla teması bulunması dolayısı ile disiplinler arası, değişik bir metodolojik yaklaşım olduğunu öne sürmüş ve bu kapsamda YKİ'ye özel yeni terimlerin olduğunu vurgulamıştır. Groenewegen, Spithoven ve Van der Berg'e göre YKİ, sınırsız rasyoneliteyi, kusursuz bilgi ortamını ve maliyetsiz işlemi kabul etmemektedir. 20 yüzyılda Veblen, Mitchell ve Commons'un öncülük ettiği Kurumsal İktisat Okulu'nun, Neoklasik iktisatçıları kritize etme temelli yaklaşımından ayrılan YKİ, disiplinlerarası analizler ile pozitif bir araştırma alanı oluşturmuştur. North yayınlamış olduğu makalesi ile YKİ'nin temellerini oluşturmuş; sınırlı bilgi ortamının kabul edildiği bir dünyada kurumların boşlukları doldurup doldurmadıklarını ve kurumların gelişimlerini incelemiştir. North kurumları bir toplumda oynanan oyunların kuralları olarak tanımlarken; Williamson kurumları işlemleri yürüten özel birimler olarak tanımlamıştır. YKİ kapsamında farklı kurum tanımlanması bir eleştiri konusu olmuştur.

Geçiş ekonomileri için Opper neoklasik iktisat teorilerinin yeterli olmadığını söylerken; Roland YKİ'nin geçiş ekonomilerini kurumları temel alan yaklaşımla inceleyen dinamik bir yaklaşım olarak dikkat çektiğini belirtmiştir. Dünya Bankası'nın 1990'lı yıllarda toplamış olduğu uluslararası veriler, karşılaştırmalı çalışmalara temel oluşturmuştur. Ancak Brousseau ve Glachant'a göre sosyalist ekonomiler için geçiş bir anda olamayacak ve hatta kademeli gerçekleşebilecektir. Murrell'e göre sosyalist rejime ait tüm kurumlar aniden yok olmuş ve yeni formel

kurumların inşası süreci başlamıştır. Brousseau, kurumların inşa mı edildiği yoksa doğal olarak mı ortaya çıktığına yönelik tartışmaya dikkat çekmiştir. Petrol sektörünün gelişimini etkileyen iki ana formel kurum bulunmaktadır: mülkiyet hakları ve mali rejim.

En önemli formel kurumlardan biri olan mülkiyet hakları, Alchian tarafından "kaynakların nasıl kullanılacağının ayrıcalıklı bir otorite tarafından belirlenmesi" olarak tanımlanırken; Demsetz, "ekonomik olduğunda, fayda ve maliyetleri içselleştirmek istenen dışsallıklardan doğan haklardır" şeklinde tanımlamış ve mülkiyet tiplerini komünal, özel ve devlete ait olmak üzere üç tipte sınıflandırmıştır. Demsetz, mülkiyet haklarının, işlem maliyetlerinin belirlenmesinde temel alındığını vurgulamış ve örnek olarak komünal hakların daha fazla dışsal fayda yarattığını, ancak yüksek işlem maliyetlerine rağmen verimsizliğin bu tipte çok fazla olduğunu belirtmiştir; aksine özel mülkiyet tipinde, bireylerin işlem maliyetlerini en düşük tutma isteğini vurgulamıştır. Luong ve Weinthal, petrol sektöründeki sahiplik yapısını dört farklı sınıfa ayırmıştır: devletin kontrollü sahipliği (S1), devletin kontrolsüz sahipliği (S2), yerel özel sahiplik (P1) ve yabancı özel sahiplik (P2). Hazar ülkelerini bu sınıflama esasında incelemiştir. Diğer önemli bir formel kurum ise mali rejimdir. Tez kapsamında kullanılmış olan mali rejim terimi, bir ülkenin makroekonomik anlamındaki mali rejimi değildir. Kasriel ve Wood'a göre mali rejim, arama ve üretim projelerinde karlılığı etkileyen en önemli parametredir ve sadece vergileri değil, diğer tüm gelir paylaşımı mekanizmalarını da kapsamaktadır. Dongkun ise daha detaylı bir tanımlama yaparak mali rejimi, gelir ve maliyetlerin evsahibi ülke ve yatırımcı arasında makul paylaşımı esasında kullanılan mekanizmalar (maliyetlerde üst sınır belirleme, maliyet kurtarma, devlet hakkı, kar petrol paylaşımı, kurumlar vergisi, amortisman, ikramiyeler, arazi kiraları, iç piyasa yükümlülükleri, eğitim fonları…) olarak tanımlamıştır.

Üçüncü bölümde bölgenin en büyük petrol üreticisi olan Rusya'nın kurumsal gelişimi incelenmiş ve petrol sektörünün durumu sunulmuştur. Sovyetlerin dağılmasından sonra, Rusya'nın ekonomik durumu oldukça zorlu bir döneme girmiştir. GSYH oranlarında eksi rakamlar, hızla düşen petrol üretimi ve buna bağlı düşen petrol ihracatı Rusya'nın zor durumunu ortaya koymuştur. Çıkış yolu arayan Kremlin, özellikle ülke ekonomisinin lokomotif sektörü olan petrol sektöründe özel

mülkiyet haklarına izin veren bir reform programı başlatmıştır. Locatelli ve Rossiaud, bu reformun iki temel amacı olduğunu vurgulamış; ilkinin uzun vadeli büyümeyi temin edecek olan etkili uygulamaların teşvik edilmesi ve ikincisinin ise sektördeki aktörler arasındaki işlemleri stabilize etme amacıyla koordinasyon mekanizmalarının iyileştirilmesi olduğunu söylemişlerdir. Luong ve Weinthal'a göre dağılmadan sonra, Rusya P1 tipi sahiplik yapısını benimsemiş ve buna uygun özelleştirme programları uygulamaya başlamıştır. 1993 yılından sonra yürütülen bu programlar sonucunda, petrol sektöründeki ana oyuncular dikey entegre şirketler olurken; milli petrol şirketi olan Rosneft'in, ülkenin toplam petrol üretimindeki payı yüzde 5'e düşmüştür. Shulga, 1998 Asya finansal krizinin, Rus ekonomisi üzerinde yıkıcı bir etki yarattığını; GSYH ve direct yabancı yatırım hacminin de bu dönemde neredeyse yarıya düştüğünü belirtmiştir. 2000 yılında göreve gelen Putin de bu programlarını yürütmeye devam etmiştir. 1999 yılından sonra artan uluslararası petrol fiyatları, ihracat gelirlerinde artış sağlamıştır. Locatelli bu dönemden sonra devlet şirketleri olan Gazprom ve Rosneft'in yeni ve etkili oyuncular olarak sektörde konumlandığını vurgulamıştır. Ahrend ve Tompson, özelleştirme programındaki sahiplikleri incelemiş ve iki tür alıcı olduğunu belirtmiştir; finans sektörü alıcı grupları (*finansisty*) ve petrol sektörü yöneticileri (*neftyaniki*). Tablo 4'te görüleceği üzere, 2004 yılında dört özel şirketin toplam üretimi, ülkenin petrol üretimindeki ve ihracatındaki payı yaklaşık yüzde 60 olmuştur. Özelleştirme yerli şirketlerin sektöre yatırım yapmasının kapısını açsa da yabancı yatırımcılar için de fırsatlar doğmuştur. Kremlin, sektörde yüksek teknoloji gerektiren projeler için yabancı yatırımcıları çekmek üzere, 1995 yılında Üretim Paylaşım Anlaşması (ÜPA) kanununu kabul etmiştir. İç kanunlar ile uyumsuzlukları olan, herbiri ayrı müzakere ve denetim süreci gerektiren ve farklı mali şartları olan ÜPA'lar, Rus yetkililerince pek kabul görmemiştir. Rusya yabancı konsorsiyumlarla 2014 yılına kadar sadece 3 ÜPA akdetmiştir (Bkz. Tablo 3). İronik olarak ülkedeki toplam petrol üretiminin yüzde 12'si ÜPA'lardan gerçekleşmektedir. Bu kanun haricinde birçok kanun ve düzenlemeler kabul edilmiştir. Putin'in danışmanları, 2000'den sonra Rus ekonomisine akmaya başlayan ihracat gelirlerinin genel ekonomi üzerinde olumsuz etkiler yaratabileceği ve Hollanda Hastalığı alarmını vermişlerdir. Dolayısıyla, aşırı likiditeyi emmek ve federal bütçeyi dengelemek için, 2004 yılında Federal İstikrar Fonu kurulmuştur. Gel'man ve Marganiya, Ocak 2008'de Fonda bulunan paranın yaklaşık 160 milyar ABD Doları olduğunu belirtmişlerdir. Gel'man ve Marganiya,

Putin'in petrol zengini oligarklardan uzak durma politikasına vurgu yaparak, Putin ve bu önemli iş liderleri arasında politikaya karışmama yönünde gayriresmi bir anlaşma bulunduğunu söylemişlerdir. Ancak, bu gayriresmi anlaşma 2003 yılındaki parlamento seçimleri arifesinde sona ermiş; Kremlin, Yukos olayı sonucunda oligarklara savaş açmıştır. Bu tarihten sonra sektörün yavaş yavaş millileştirilmesi sürecine geçilmiştir. 2009 yılında Tablo 6'da görüldüğü üzere, milli şirketler olan Gazprom, Gazpromneft ve Rosneft ülke üretiminin yaklaşık yüzde 40'ına sahip olmuşlardır. Luong ve Weinthal, Rusya'nın sektördeki sahiplik yapısının 2005 yılında P1'den S1'e kaydığını ifade etmişlerdir. 2007 yılında Kabul edilen Stratejik Alanlar terimi ile 31 saha stratejik olarak sınıflanmış ve yabancı şirketlerin payı bu projelerde kısıtlanmıştır. Sektörde bu tip uygulamalar yatırımcılar için cazibeyi azaltmıştır. Shulga, Rusya'ya gelen doğrudan yabancı yatırımın düşük olduğunu belirtmiştir (Bkz. Şekil 7). İmtiyaz anlaşmaları bazında, devlet tarafından, üretilen petrol miktarı üzerinden alınan Mineral Üretim Vergisi (2002 yılında onaylanmış) ve İhracat vergisi ana mali rejim bileşenlerini oluşturmaktadır. Bunlar haricinde birçok ek vergi kalemi (Gelir vergisi, katma değer vergisi, mülkiyet vergisi…v.s.) bulunmaktadır. Ahrend ve Tompson, halihazırdaki vergi sisteminin aramacılığı teşvik etmediğini, üreten sahaların daha çok sağılması yönünde teşvikleri bulunduğunu, dolayısıyla da sektörde yeni keşiflerin az olduğunu belirtmişlerdir. 2014 yılı başından beri düşen petrol fiyatlarının sektördeki yatırımları, Ruble'yi ve genel ekonomiyi menfi etkileyeceği aşikardır.

Dördüncü bölümde Kazakistan'daki kurumsal gelişim incelenmiş ve petrol sektörünün durumu sunulmuştur. Sovyetler Birliği döneminde ikinci en büyük petrol üreticisi olan Kazakistan, ekonomik olarak Birliğe bağımlıydı. Olcott kitabında Kazakistan'ın ulusal bilincinin Gorbaçov yıllarında arttığını ancak Sovyetlerden siyasi bağımsızlığı hiç talep etmediğini söylemiştir. Kazakistan bağımsızlığını hiç beklemediği bir anda 16 Aralık 1991 tarihinde kazanmıştır. Kazak SSR'ın Komünist Partisi birinci sekreteri Nursultan Nazarbayev, ülkenin ilk cumhurbaşkanı olarak seçilmiştir. Bağımsızlık sonrası ekonomik durumu kötüleşen Kazakistan da bu krizden çıkış için petrol sektörüne sarılmıştır. Yabancı yatırımcıları çekmek amacı bulunan Kazak hükümeti, sektörde yeni kurum inşası sürecine de aynı dönemde başlamıştır. Luong ve Weinthal Kazakistan'ın sahiplik yapısının o dönemde P2 olduğunu vurgulamıştır. 28 Ocak 1993 tarihinde Anayasa onaylanmış ve yasanın

6.maddesi gereği devlete ait olan tüm yer altı kaynaklarının geliştirilmesinde özel yatırımcılara da izin verilmiştir. Bağımsızlığından sonra, Mangistaumunaigas, Aktobemunaigas, Yuzhneftegaz gibi ana petrol şirketleri, toplam ülke petrol üretiminde yüzde 90 paya sahip olurken; kalan yüzde 10 ise şirket çalışanlarına dağıtılmıştır. Sonraki yıllarda KazMunayGaz, "*brownfield*" tabir edilen yaşlı sahaları yabancı yatırımcılara doğrudan satmıştır. 1994 yılında onaylanan Yabancı Yatırımlar Kanunu ile, ülkede akdedilmiş olan imtiyaz sözleşmelerdeki şartların korunması, yabancı şirketler için uluslararası tahkim ile anlaşmazlıkların çözümü yolunun tanınması ve ülkenin petrol ihracat ve rafinaj kapasitelerini artırma hedefi olan bir ulusal program kabul edilmiştir. 1995 yılından sonra sırasıyla çıkarılan kanunlar ve uygulamalar birçok defa yenilenmiş, 2008 yılındaki yasa değişikliği ile ÜPA'nın petrol sektöründe kullanımı kaldırılmıştır. Buna paralel olarak vergi mevzuatı da büyük değişikliklere konu olmuştur. 2009 yılında onaylanmış olan Vergi Kanunu gereğince, sadece bu tarihten önce akdedilmiş olan ÜPA'lar ve Cumhurbaşkanı tarafından verilen projelerin kontratlarında vergi istikrarı temin edilmiştir. 1997 yılında milli petrol şirketi olan Kazakhoil kurulmuş, 2000'li yıllarda gücü kademeli olarak Bakanlığa devredilen şirketin 2001 yılında tüm yetkileri elinden alınmıştır. 2002 yılında ise Kazmunaygaz şirketi milli petrol şirketi olarak faaliyetlerine başlamıştır. Luong ve Weinthal, Petrol fiyatlarının artışına bağlı olarak ihracattan daha fazla gelir elde eden Kazakistan'ın petrol sektöründeki mülkiyet haklarının P2'den S2'ye değiştiğini belirtmişlerdir. 2000 yılında, petrol gelirlerinin gelecek nesillere aktarımını hedefleyen ve bütçe dengeleme amaçlı kullanılacak olan Ulusal Petrol Fonu kurulmuştur. 2013 yılı sonu itibarıyla bu fonda 71 milyar ABD Doları birikmiştir. Şekil 8'de görüldüğü üzere, özellikle 2006 yılından sonra ülkeye gelen doğrudan yabancı yatırım artmış; 1992 yılından 2013 yılına toplam 119 milyar ABD Doları olmuştur. Sovyetlerin dağılması sonrasında büyük petrol projelerinin hayata geçmesi ile ülkenin petrol üretimi artmıştır. 2010 yılında, günlük ortalama 1,7 milyon varil üretim rakamına ulaşılmıştır. Petrol ve Doğalgaz Bakanı Karabalin 2030 yılında Kazakistan'ın 2,2 milyon varil/gün üretimi hedeflediğini açıklamıştır. Yatırımcıların önündeki en büyük engelin, değişikliklere açık bir mali rejim olduğu belirtilmektedir.

Beşinci bölümde Azerbaycan'daki kurumsal gelişim incelenmiş ve petrol sektörünün durumu sunulmuştur. Sovyetler Birliği'nden bağımsızlığını ilan ettiğinde, ülke toprak bütünlüğünü sağlamak için Ermenistan ile savaş halinde olan Azerbaycan, aynı zamanda ekonomik anlamda büyük zorlukların içerisindeydi. Ülkede GSYH, 1989-1994 yılları arası yüzde 63 düşmüştür. Ottaway, savaş dolayısı ile ülkede artan mülteci sayısı ve buna bağlı ekonomik yüke vurgu yapmıştır. Yabancı yatırımcıya ÜPA'lar ile cazip kılınan petrol sektörüne birçok yabancı majör şirket yatırım yapmıştır. Artan petrol fiyatları ve batıya açılan petrol-doğalgaz ihraç rotalarının hayata geçmesi sonucu ülke ekonomik anlamda refaha kavuşmuştur. 18 Ekim 1991 tarihinde onaylanmış olan Azerbaycan Anayasasının 14. Maddesinde ülkenin doğal kaynaklarının Azeri halkına ait olduğu kabul edilmiş; bu amaçla milli Azerineft ve Azneftkimiya şirketleri kurulmuş; sonrasında tek bir bünyede birleştirilmişlerdir. SOCAR şirketi sektörde etkin ve güçlü, ÜPA akdetmeye ve yatırımcı olarak bu projelerde yer almaya yetkili olan bir petrol şirketi olarak 1992 yılında ortaya çıkmıştır. Azerbaycan'da projelerin mali rejimlerini düzenleyen herhangi bir kanun bulunmamakta ancak taslak bir kanun halen tartışılmaktadır. Ciarreta ve Nasirov, Azerbaycan'ın kendi petrol ve gaz sahalarını geliştirmek için yeterli finansmana sahip olmayan, düşük kredi notuna sahip genç bir devlet olarak ÜPA'ları esas alarak sektörü geliştirdiğini belirtmiştir. Luong ve Weinthal bağımsızlıkları sonrasında Azerbaycan'ın S2 tipte mülkiyet haklarını tesis ettiğini vurgulamıştır. 1993 yılında eski komunist parti lideri Haydar Aliyev başkan olmuş ve ülkenin en büyük projesi olan Azeri-Çıralı ve Güneşli petrol projesi imzalanmıştır. 2010 yılına kadar yabancı şirketler ve/veya konsorsiyumlarla 32 ÜPA imzalanmıştır. Şekil 10'da 1995 yılı ve 2013 yılı arasında ülkeye toplam 83,8 milyar ABD Doları doğrudan yabancı yatırım geldiği görülmektedir. Bunun yaklaşık 49 milyar ABD Doları petrol ve doğalgaz sektörüne yatırılmıştır. Milli petrol stratejisi paralelinde ulusal fon olan SOFAZ, 1999 yılında kurulmuştur. Sadece ÜPA'lardan gelen nakitlerin biriktirildiği fonda 2014 yılına kadar 37 milyar ABD Doları toplanmıştır. Bunun haricinde alınan vergi gelirleri ise ülkede altyapı yatırımlarına dönüşmektedir. Hasanov bu gelirlerin harcanması hususunda Azerbaycan'ın dikkatli davranmadığını belirtirken, Ciarreta ve Haciyev'e göre ise bu fon ülkede yoksulluk ile mücadele amacıyla kullanılmaktadır. 2013 yılı sonu itibarıyle 7 milyar varil ispatlanmış üretilebilir petrol rezervi olan Azerbaycan'ın ortalama günlük üretimi 863 bin varile ulaşmıştır.

Ülkede esas alınan ÜPA'ların mali bileşenleri Tablo 9'da özetlenmiş ve yatırım ortamının diğer ülkelere göre farklılaşmış olduğu belirtilmiştir.

Altıncı bölümde Türkmenistan'daki kurumsal gelişim incelenmiş ve petrol sektörünün durumu sunulmuştur. Bassam, Sovyet sonrası Hazar ülkeleri içinde uluslararası yatırıma en kapalı ve planlı ekonomiye sahip olan Türkmenistan'da demokratik yönetim, çok partili siyaset, çoğulculuk ve sivil toplum miraslarının bulunmadığını belirtmiştir. Ülkenin ilk cumhurbaşkanı Saparmurat Niyazov, kendisini "Türkmenbaşı" (Türkmenlerin babası) olarak ilan etmiş ve 2006 yılında vefatına kadar gücü kendisinde merkezileştirmiştir. Sovyet tipi bir yönetim biçimi uygulayan Türkmenistan'da gaz, su, elektrik gibi halkın ihtiyacı olan temel giderler uzun dönemler boyunca ücretsiz devlet tarafından temin edilmiştir. 2006 yılında göreve gelen yeni cumhurbaşkanı Berdimuhammedov da aynı tip yönetim biçimini sürdürmeyi tercih etmiş; Luong ve Weinthal Türkmenistan'da S1 tipi mülkiyet haklarının bulunduğunu söylemiştir. Ülkede petrol sektörüne ilişkin hukuki yapılanmanın devletleştirmeyi vurgulayacak şekilde sürdürülmesinin yanısıra, 1996 yılında sektördeki faaliyetleri yürütecek beş milli şirket kurulmuştur: Turkmenneft, Turkmengas, Turkmenneftegasstroy, Turkmenneftegas and Turkmengeologiya. Ancak 2008 yılında kabul edilmiş olan Hidrokarbon Kanunu gereğince bu milli şirketlerin üzerinde, kendine bağlı gibi işleri yürütmeye yetkilendirilmiş Devlet Hidrokarbon Ajansı kurulmuştur. Türkmenistan'da petrol fonu bulunmamaktadır. Diğer ülkelerden farklı olarak, 1995 ve 2013 yılları arası Türkmenistan'a sadece 23 milyar ABD Doları doğrudan yabancı yatırım gelmiştir. 1998 yılı sonunda 546 milyon varil ispatlanmış petrol rezervi olan Türkmenistan'ın USGS verilerine göre keşfedilmemiş 6,8 milyar petrol rezervi bulunmaktadır. Ayrıca Türkmen kaynaklarına göre 80,6 milyar varil petrol Hazar Denizinin Türkmenistan sularında yer almaktadır. Ahrend ve Tompson'a göre Türkmenistan yeterince aramacılık yapılmış bir ülke değildir. Halihazırda ülkenin petrol üretimi ortalama günlük 231 bin varil olarak gerçekleşmiştir. 2007-2030 Petrol ve Doğalgaz Geliştirme Planı çerçevesinde, Türkmenistan'ın 2030 yılında 110 milyon ton petrol üretimi ve 80 milyon ton petrol ihracatı hedefi bulunmaktadır. ÜPA'lar ve servis anlaşmaları ile yabancı şirketlere yatırım imkanları sunulmuştur. Bu kapsamdaki mali terimler bu bölümde özetlenmiştir.

Sonuç bölümünde Sovyetler Birliği sonrasında Hazar'da kurulmuş olan petrol zengini ülkelerin kurumsal gelişimleri karşılaştırmalı olarak sunulmuştur. Kaynak laneti literatürü, petrol zenginliğinin ülkelerin ekonomik gelişimini azalttığını öne sürerken aynı zamanda kurumları ve kurumsal gelişimi analizlerine dahil etmemekte ve bu yönüyle diğer yaklaşımlara göre yetersiz olarak değerlendirilmektedir. Yeni Kurumsal İktisat ("YKİ") literatürünün kurumları esas alan yaklaşımının daha kapsayıcı ve detaylı analizlere izin verdiği tespit edilmiştir. Sovyet sonrası Hazar ülkelerindeki kurumsal gelişiminin günümüzde halen devam ettiği sonucu vurgulanmıştır.

B. TEZ FOTOKOPİSİ İZİN FORMU

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TEZİN ADI (İngilizce) : FISCAL DIMENSION OF OIL SECTORS IN THE POST-SOVIET CASPIAN COUNTRIES: A NEW INSTITUTIONALIST APPROACH

TEZİN TÜRÜ : Yüksek Lisans ■ Doktora ☐

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