The Economic effects of Oil Investments (Case of Kurdistan Region and Iraq)

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الخلاصة

يتطرق هذا البحث مجال تأثير قطاع الاستثمارات النفطية على الوضع الاقتصادي في اقليم كوردستان بصورة خاصة والعراق بصورة عامة. حيث يعتبر النفط من الناحية الاقتصادية المصدر الرئيسي للواردات في الاقليم والعراق، وتظهر اهمية هذا القطاع خلال فترات انخفاض وارتفاع السعار النفط بحيث يؤثر بصورة مباشرة على كافة القطاعات الاقتصادية للبلا. وقد حاولنا من خلال هذا البحث ان نوضح اهمية حجم الاستثمارات في القطاع النفطي وخاصة فيما يتعلق بتحليل العقود والاتفاقات التي ابرمت في هذا المجال مع الشركات العالمية واظهار مواضع الخلل والجدوى الاقتصادية لهذه العقود.

وقد قمنا على اساس هذه التحليلات واستعراض البيانات المنشورة من المؤسسات التي تشرف على ادارة هذا القطاع بتقديم بعض التوصيات والمقترحات لصانعى القرار حول كيفية تطوير القطاع الاستثماري وكذلك رسم خارطة طريق للخروج من المشاكل الاقتصادية التي تواجهها البلد عن طريق اتباع وتطبيق الادارة الكفوءة لهذه الموارد الطبيعية

<u>Abstract:</u>

This research deals with the area of influence of the oil sector investments on the economic situation in the Kurdistan Region in particular and Iraq in general. Where the oil is economically the main source of imports in the region, Iraq, and shows the importance of this sector during periods of low and high oil prices that have a direct impact on all economic sectors of the country. We have tried through this research to make clear the importance of the size of investments in the oil sector, particularly with respect to the analysis of contracts and agreements concluded in this field with international companies exhibiting flaws and economic feasibility of such contracts. We have tried to provide some recommendations and suggestions for decision-makers on the basis of these analyzes and a review of published data from the institutions, which oversees the administration of the sector on how to develop the investment sector, as well as drawing a map road to solve the economic problems facing the country by following the application of efficient management of these natural resources revenues.

Introduction

Iraq has known oil for a long time in history as shown in evidence that oil was used by the ancient inhabitants of Mesopotamia as water-proof boat paint while the Babylonians were the first to use asphalt material for construction purposes. Thus, in 1961 Iraq passed the, law 81 which seized 95% of the oil fields from IPC and the Iraqi National Oil Company was founded in 1964. In 1967 Iraq and the Soviet Union signed a protocol by which the Soviet

Union was committed to provide technical and financial assistance for the Iraqi oil company. In 1972 Iraqi oil was nationalized. In the early years of nationalization the Iraq National Oil Company succeeded in raising the oil production in Iraq from 1.4 million barrels per day to more than 3 million barrels per day in 1980. But the outbreak of the war with Iran in that year severely damaged the export capacities of Iraq. After 2003, production declined reaching 1.9 million barrels per day in 2005. The war and the following embargo had weakened the oil sector infrastructure that requires huge investments, with an estimated cost for sustained production and development to reach \$4 billion⁽¹⁾. The Kurdistan region as a political entity was not until 1991 after the first Gulf war and the establishment of a no fly zone by the international community that led to a de facto independent region. As a result of the region's autonomy status during the nineties and up to the invasion of Iraq in 2003, Kurdistan sought independent leadership and emerged as a national region within the Iraqi country by participating in the referendum on the constitution in 2005 in which it was acknowledged by the Iraqi people that the Kurdistan region is to be a federal entity with parliamentary democracy and consists of three governorates of Dahuk, Erbil and Sulaimaniya and since this date the region was able to bring about significant changes on the economic and political level, pursue a policy of investment attraction for foreign capital, and utilize the financial budget allocated to the region from the federal budget in building infrastructures that aid the region in the future to enter the regional competition.

Organizing the oil investment in Kurdistan Region

Production Sharing Contracts (PSC) In Kurdistan

A. licensing: the law specifies several types of licenses relating to oil operations, as follows:

1. Exploration licenses:

Exploration and development licenses: allows concluding oil contracts to explore and develop specific regions through production sharing contracts (PSC) or any other type of contracts. In this type of licensing the contractor holds the royalties of oil operations management in the contract area.

116

Authorization licenses: Gives a group of people to the right to create or set up or operate of the facilities or the machines and equipment to carry out other work.

(B) Production sharing contracts

Production sharing contracts are set under a variety of special conditions, as follows:

- 1. The oil exploration period is limited to five years divided into two periods the first is three years and the second is two years and it is allowed to be extend to seven years maximum⁽²⁾.
- 2. A development period of twenty years is set after the exploration period and can be extended to five more years with the possibility of renegotiating another extra period.
- 3. Recovered costs are deducted from the production after deducting profit and the maximum does not exceed the following chart that illustrates the profit and the participant rate of companies as stated in the law.

The following table lists companies that have received licenses for exploration and production of oil until the year 2013, together with the field operator and the proportion of the region participant rate and Kurdistan Regional Government KRG percentages.

Table (1) PSC Licenses in Kurdistan region

LICENCS							
SN	LICENCE AREA	operator	%	Kurdistan Regional Government KRG%	Other PSC participant	%	
1	TAWKE	DNO	55	20	Genel Energy	25	
2	CENTRAL DOHUK	Murghy oil	50	30	Petroquest Energy	30	
3	SUEVANI	Petroquest Energy	80	20			
4A	SIND-AEDIESAT	Perenco	30.94	25	Oryx Petroleum	25.31	
4B	SIND-AEDIWSAT						
5	SARANG	HKN Energy	56.25	25	Marthon oil	18.75	
6	BER BAHR	Genel energy	40	20	Gulf keystune	40	
7	SHEIKH-ADI	Gulf keystune	80			20	

9	8	DOHUK	DNO	40	20	Genel Energy	40
Exploration parteners	9	Al QUSH	ExxonMobil	80	20		
10			General				
SHEIKH Gulf keystune 51 20 MOL &Texas keystone 17			Exploration				
AIN SIPNI	10	ATRUSH	parteners	64	20	TAQA	16
13 DINARTA	11	SHEIKH	Gulf keystune	51	20	MOL &Texas keystone	17
14	12	AIN SIFNI	Hunt oil	60	20	Afren	20
SARTA	13	DINARTA	Hess	64	20	Petroceltic	16
16 SARTA	14	AKRI-BIJEEL	MOL	51.2	20	Gulf keystune	12.8
17 BARDA RASH	15	ROVI	Chevrun	60	25	OMV	15
18 BAESHIQA ExonMobil 80 20 NewAge 40 19 ERBIL DNO 40 20 NewAge 40 20 HAWLER Oryx Petroleum 65 20 KNOC 15 21 HARIR Marathon oil 45 20 Total 35 22 PIRMAN ExonMobil 80 20 23 BETWATA ExonMobil 80 20 24 CHOMAN Turkish entity 80 20 25 HINDREN Turkish entity 80 20 26 SHAKROK Hess 64 20 Petroceltic 16 27 SAFEEN Marathon oil 45 20 Total 35 28 BINA BAWI OMV 36 20 Genel Energy 44 29 SHORISH 30 MALA OMAR 31 QUSH TAPPA 32 QALA DZE Repsol 80 20 33 KHALAKAN Khalakan 40 20 34 CHIRMILA TTOPCO 80 20 35 PIRAMAGRUN Repsol 80 20	16	SARTA	Chevrun	60	25	OMV	15
19 ERBIL DNO 40 20 NewAge 40	17	BARDA RASH	Afren	60	20	Komet Group	20
20	18	BAESHIQA	ExxonMobil	80	20		
21 HARIR Marathon oil 45 20 Total 35 22 PIRMAN ExxonMobil 80 20 23 BETWATA ExxonMobil 80 20 24 CHOMAN Turkish entity 80 20 25 HINDREN Turkish entity 80 20 26 SHAKROK Hess 64 20 Petroceltic 16 27 SAFEEN Marathon oil 45 20 Total 35 28 BINA BAWI OMV 36 20 Genel Energy 44 29 SHORISH 30 MALA OMAR 31 QUSH TAPPA 32 QALA DZE Repsol 80 20 33 KHALAKAN Khalakan 40 20 34 CHIRMILA TTOPCO 80 20 <tr< td=""><td>19</td><td>ERBIL</td><td>DNO</td><td>40</td><td>20</td><td>NewAge</td><td>40</td></tr<>	19	ERBIL	DNO	40	20	NewAge	40
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23 BETWATA ExxonMobil 80 20 24 CHOMAN Turkish entity 80 20 25 HINDREN Turkish entity 80 20 26 SHAKROK Hess 64 20 Petroceltic 16 27 SAFEEN Marathon oil 45 20 Total 35 28 BINA BAWI OMV 36 20 Genel Energy 44 29 SHORISH 30 MALA OMAR 31 QUSH TAPPA 32 QALA DZE Repsol 80 20 33 KHALAKAN Khalakan 40 20 44	21	HARIR	Marathon oil	45	20	Total	35
24 CHOMAN Turkish entity 80 20 25 HINDREN Turkish entity 80 20 26 SHAKROK Hess 64 20 Petroceltic 16 27 SAFEEN Marathon oil 45 20 Total 35 28 BINA BAWI OMV 36 20 Genel Energy 44 29 SHORISH 30 MALA OMAR 30 MALA OMAR 30 30 MALA OMAR 30 30 MALA OMAR 32 QALA DZE Repsol 80 20 20 33 KHALAKAN Khalakan 40 20 34 CHIRMILA TTOPCO 80 20 35 PIRAMAGRUN Repsol 80 20 35 PIRAMAGRUN Repsol 80 20 30 35 35 PIRAMAGRUN Repsol 80 20 30	22	PIRMAN	ExxonMobil	80	20		
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26 SHAKROK Hess 64 20 Petroceltic 16 27 SAFEEN Marathon oil 45 20 Total 35 28 BINA BAWI OMV 36 20 Genel Energy 44 29 SHORISH Image: SHORISH <td>24</td> <td>CHOMAN</td> <td>Turkish entity</td> <td>80</td> <td>20</td> <td></td> <td></td>	24	CHOMAN	Turkish entity	80	20		
27 SAFEEN Marathon oil 45 20 Total 35 28 BINA BAWI OMV 36 20 Genel Energy 44 29 SHORISH Image: Control of the control	25	HINDREN	Turkish entity	80	20		
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29 SHORISH 30 MALA OMAR 31 QUSH TAPPA 32 QALA DZE Repsol 80 20 Gaz Plus TAQ TAQ KEWA 34 CHIRMILA TTOPCO 80 20 35 PIRAMAGRUN Repsol 80 20	27	SAFEEN	Marathon oil	45	20	Total	35
30 MALA OMAR 31 QUSH TAPPA 32 QALA DZE Repsol 80 20 33 KHALAKAN Khalakan 40 20 TAQ TAQ KEWA TAQ TAQ KEWA 20 34 CHIRMILA TTOPCO 80 20 35 PIRAMAGRUN Repsol 80 20	28	BINA BAWI	OMV	36	20	Genel Energy	44
31 QUSH TAPPA 80 20 32 QALA DZE Repsol 80 20 33 KHALAKAN Khalakan 40 20 TAQ TAQ KEWA TAQ TAQ KEWA 20 34 CHIRMILA TTOPCO 80 20 35 PIRAMAGRUN Repsol 80 20	29	SHORISH					
32 QALA DZE Repsol 80 20 33 KHALAKAN Khalakan 40 20 TAQ TAQ KEWA TOPCO 80 20 35 PIRAMAGRUN Repsol 80 20	30	MALA OMAR					
Gaz Plus	31	QUSH TAPPA					
33 KHALAKAN Khalakan 40 20 TAQ TAQ KEWA 20 20 34 CHIRMILA TTOPCO 80 20 35 PIRAMAGRUN Repsol 80 20	32	QALA DZE	Repsol	80	20		
TAQ TAQ KEWA 34 CHIRMILA TTOPCO 80 20 35 PIRAMAGRUN Repsol 80 20			Gaz Plus				
34 CHIRMILA TTOPCO 80 20 35 PIRAMAGRUN Repsol 80 20	33		Khalakan	40	20		
35 PIRAMAGRUN Repsol 80 20							
	34	CHIRMILA	TTOPCO	80	20		
36 MIRAN Genel energy 75 25	35	PIRAMAGRUN	Repsol	80	20		
	36	MIRAN	Genel energy	75	25		

37	BAZIAN	KNOC-Bazian		20		
38	SANGAW NORTH	open licence				
39	TOPKHANA	Talisman	60	20		
40	TAZA	oil search	60	20	Total	20
41	PULKHANA	Turkish entity	40	20		
42	PENJWIN	open licence	80	20		
43	ARBAT EAST	ExxonMobil	80	20		
44	ARBAT	Turkish entity	80	20		
45	BARANAN	Total	60	20	Murphy	20
46	QARA DAGH	Chevrun	80	20		
47	SANGAW SOUTH	KNOC	30	20		
48	KURDAMIR	Talisman	40	20	Western Zagros	40
49	GARMIAN	Western Zagros	40	20	Gazprom Neft	40
50	SHAKAI	Gazprom Neft	80	20		
51	CHIA SURKA	Genel energy	60	20	petoil	20
		Crescent				
	*****	petroleum, Dana				
52	KHOR MOR	Gaz				
		Crescent				
		petroleum, Dana				
53	CHEMCHEMAL	Gaz				
54	QARA HANJEER	ExxonMobil	80	20		
	KHURMALA DOME					
55	KRG block	Kar Group				
56	HALABJA	Gazprom Neft	80	20		
57	JABAL KAND	Turkish entity	40	20		

Oil reserves in the Kurdistan region.

Oil reserves in Kurdistan are estimated at about (45 billion barrels) and represents 31% of the reserve total Iraqi oil reaching (141.35 billion barrels). These huge Iraqi reserves are generally distributed geologically in two main areas in Iraq, the first in the mountain belts rich in oil and gas fields known as the oil belt in the Iraqi Kurdistan region, which stretches

119

across (Mandali - Khanqan - Toz Khurmato-Kirkuk-Makhmour - Dbekh-Botme-Ain Zala and to near the Syrian-Iraqi border fields in the district of Zummar) and the second region is located in the plains of southern Iraq starting from northern Arabian Gulf from the city of Basra up to the north of the city of Kut.

Oil infrastructure for oil storage and transportation in the region

Without secure oil transportation and storage system for oil production and its delivery to the world market, the process of increasing production and investment in the fields will not be feasible. Thus, in order to complement the oil industry of exploration and production, transportation of the oil production must be in place to transport the oil from the fields to the export system. When reaching the planned oil production levels, the region should work in parallel to increase its export capacity to cover the increase in oil production through the introduction of a new network to transport oil. The northern oil export outlet currently available is via the Turkish port of Ceyhan which can be linked with the Iraq-Turkey pipeline that transports oil from Kirkuk which is a solution can be accomplished within a record time for the delivery of oil to world markets.

The new network to transport oil is divided into two parts, the first pipeline carrying oil from the Taq Taq field and Khormelh to the Turkish border where it is pumped into the Iraq-Turkey oil pipeline. The second pipeline transports oil separately from the Iraqi pipeline to the Turkish port of Ceyhan. In addition to the oil oiliness there are gas pipelines, which are not mention here for brevity. The following table shows the oil pipelines in the region and the details for pipelines which are under construction ⁽³⁾.

Table (2) Oil Transport Pipelines in the Region

Existing Pipelines								
Pipe line	Size Capacity(bbI/d)		Notes					
kirkuk-Ceyhan		1.6 million	2012 export 0.4million bbI/d					
Tawke -Fish Khabour		100000	Installed and operated by DNO					
New oil Pipelines Kurdistan - Turky								
Pipe line	Size	Capacity (bbI/d)	Notes					
Taq Taq -Khurmala	20"	150000	81 km					
Khurmala to Fish Khabour	24" opining to 36"	300000	Expanded to 1 million					

Iraq's Oil reserves

Iraq has proven oil reserves of about 112 billion barrels while 81% of Iraq's oil is still unexplored, thus the potential reserve estimate for Iraq is about 361 billion barrels. The Iraqi oil reserves represent about 10.7% of the total world reserves. Iraq is ranked the largest in oil reserves in the world after Saudi Arabia. Iraqi oil is characterized by the location of its oil fields as all its fields are located on land, a reason making the costs of production the lowest in the world ranging between \$0.95 and \$1.9 per barrel compared to the cost of producing a barrel of North Sea fields which reaches ten dollars, Besides the oil in Iraq contains all types of light, medium and heavy oil ⁽⁴⁾. The labor force in Iraq's oil sector has been described as among the most efficiency in the Middle East.

Revenue generating economies

Economists agree that the a revenue generating economy is the economy, which relies mainly on its natural resource whether oil or gas, other minerals, real estate,....etc. In the case of Iraq, the economy is almost entirely dependent on crude oil. Therefore, it is a single resource revenue generating economy described by being service oriented and underdeveloped. Although Iraq enjoys an abundance of diverse natural resources, but the Iraqi state failed to invest these huge resources in building a sophisticated economic base that transforms its economy from a single source revenue generating economy to multi-source productive economy.

The state's interest has been mainly confined to the oil sector as a main source of foreign exchange while it neglected other sectors such as agriculture, industry, and tourism, resulting in a steady deterioration in these resources due to destructive dumping policies

state in service of the market economy and added to the privatization policy practiced by the that led to the liquidation of productive institutions and enterprises and transforming the Iraqi economy into a consumer oriented economy to meet the requirements of capitalist globalization. Gross domestic production (GDP) depends 95 percent on the oil sector and the general budget by 90 percent. As a result, the Iraqi state is a revenue state and its economy is a revenue generating economy.

Since the twenties of the last century the Iraqi state basically relied on the oil sector to finance its development programs and government expenditure. Iraq is globally described as a rich oil state. The International Energy Agency estimated its oil reserves in 2013, between 112 and 143 billion barrels of crude oil, but the results of exploration and aerial surveys have proven the existence of huge oil reservoirs in most areas of Iraq, raising Iraq's oil reserves to more than 400 billion barrels. This means that Iraq will be the highest country in oil reserves in the world.

The repercussions of the revenue dependent policies:

Revenue dependant policies lead to the destruction of the national economy and the economies of revenue dependent countries are followers of leading capital countries that are exporters of goods and services and thus revenue dependent countries are dependent and directly influenced by economic and financial crises that may afflict the capitalist countries thus exposing them to significant financial losses (5). If we take the case of Iraq we find it an example of a revenue generating economy. The Iraqi economy due to its revenue dependant nature paralleled with the poor state administration and programs aimed at privatization besides being influenced by the market economy made the Iraqi economy shackled with economic and financial restrictions, dependence on other capital countries, and constrained by the recommendations of the International Monetary Fund. The failure of the Iraqi economy became linked and subject to international wills dominated by colonial powers.

For the aforementioned reasons, any desired improvement in Iraqi economic development will remain subject to the increase of foreign exchange generated by its oil revenues while the deficit in its budget will remain linked to the deteriorated oil revenues. The

deteriorated of the price of a barrel of oil from \$ 110 to less than \$ 50 during the period 2014 and 2015 for example has led to a sharp deficit in the Iraqi budget estimated at more than 25 trillion Dinars forcing the government to move towards external and domestic borrowing which is a risky trend that put the Iraqi economy under further pressure and foreign dictations coupled with the absence of a strategic vision to address the nature of the state and its revenue generating economy.

The challenges of the Iraqi and Kurdistan economy being a revenue generating economy

Despite the development achievements over the past years, the National Development Plan 2013 - 2017 expects that Iraq will face consistently strong political and security challenges as well as economic, social and environmental challenges, elucidated by the low efficiency of the implementation of the objectives of the previous development plans and the low potential to reach the goals of the current plan. The most important challenges can be identified in the following:

First: economic challenges.

- The Iraqi and Kurdistan economy as a revenue generating economy: Continued activity of crude oil extraction occupies the first place as a source of GDP at a rate of 43% in 2011 and in the federal budget revenues by 97% and in Iraqi exports structure by 92%, which distorts the relationship between the oil revenue growth and the movement of macroeconomic variables in the economy and weakens the degree of long-term economic cohesion and future development.
- Economic exposure: The ;1 activities represents 57%. These percentages explain the persistence of low efficiency of the production mechanism and its lack of flexibility in responding to the growing demand for commodities in the local market in terms of the high import content of the commodity component of the market offers compared to local content (6)
- The lack of a strategic role of the private sector in the overall economic development activities in spite of the demands for a strategic approach that strengthens this role. The contribution of the private sector is no more than 6.4% to the total fixed capital contribution

in 2010 making it incapable for laying the foundations to the economy of a coherent market that generates long-term safety growth.

The obstacles to the transition of the economy of Iraq and Kurdistan Region from a revenue generating economy to a productive economy

Among the most prominent of these reasons include: -

- 1. The deteriorating security situation
- .2. Political disarray and the lack of a uniform policy position by among the ruling elites.
- 3. The method used in the implementation of government contracts and the nature of these contracts.

How can Iraq and Kurdistan Region overcome the problem being stuck in a revenue generating economy through new strategy of investment?

Stepping out of revenue dependent economy requires a number of issues including:

- 1. Having a national strategy for sustainable development and transforming the oil sector to a productive sector and by employing oil revenues in production activities to liberate the economy.
- 2. Invest more capital in order to revitalize to the real sectors of the economy and the developing of religious and archaeological tourism.
- 3. create a reassuring and encouraging investment environment for investing countries and companies while supporting the local private sector and encourage it to invest its money in support of development and reconstruction, rebuilding (7).

Recommendation

Attract additional investments in oil sector of Kurdistan Region:

- 1. Political stability in the region that gives confidence to foreign companies to enter into long-term investments.
- 2. Creating of a database for the oil and gas resources that facilitates the task of attracting investments to the region.

- 3. Establish rules of transparency in the management of natural resources, especially with respect to the oil and gas.
- 4. Legislate new laws limiting the bureaucracy in dealing with the activity of these companies so as to facilitate and speed up the operations on the one hand and preserving economic wealth from the other.

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