The Effect of NOCs on Trade, Military Spending and Economic Growth in Middle East Countries

Shahrzad AmelShahbaz

Submitted to the
Institute of Graduate Studies and Research
In partial fulfillment of the requirements for the degree of

Master of Business
in
Business Administration

Eastern Mediterranean University
June 2013
Gazimağusa, North Cyprus

ABSTRACT

Effect of NOCs may improve quality of economic growth and trade of oil which impact on their domestic resident's life. Recent research shows that governments have constantly attempted to alter their economic growth through involving with oil productions especially in their national companies. The National Oil Companies which are built to cover up the lack of economic development and competitive point in the Middle East become one of the important issues for domestic countries. As a result, the level of accessibility and permeability of oil within the countries, in fact, affect the country's level of developing in economic and export that rise satisfaction and the quality of resident's life.

Another topic that makes this paper more original and attractive is researching about how these NOCs can be effective for military spending; In fact I research on that the oil production of the NOCs is correlated with army and military spending in that regions. The result shows that high correlation between GDP growth and military spending is the one of section that directly affected by oil production of NOCs.

The current study applies the using National Oil Companies concept as an important tool for reading interrelations between these companies and the economic growth in various contexts from the single country in Middle East. The thesis is aimed to support the argument of different oil company's impact on the quality of residential growth and the trade of oil by the means of a thorough literature review of the introductory chapter. After that it focuses on using of oil company concept and

importance of accessibility to different type of them in sixth different countries typologies as samples.

The results showed that using the NOCs have notable share in provide the opportunity for their domestic country to extend their economic growth and also rise their export of oil which is result more wealth for governments to extend their planes to development and raise the security of their country by spending the oil output on military and defense expenditure. Countries use NOCs as an instrument to reclaim the level of wealth and development in their domestic country, and define their territory by use output of oil on defense expenditure. Through the observations of country's history of oil production and export of fuel as percentage of GDP, using the NOCs increase the resident satisfaction and encouraged them to participate in the global activities. Since current countries development regulations and production methods of each country, this study suggested recreating the better management tools of oil companies, more focus on export of NOCs oil production and also tries to repair the existent NOCs to provide a new perspective in NOCs and economic growth.

Keywords: National Oil Company, Middle East, Economic Growth, Oil production and Trade, Military Spending and Army.

ÖZ

Yerel Petrol Firmalarının etkisi, yerel halkın yaşamını olumlu yönde etkileyen petrol ticareti ve ekonomik büyümenin kalitesini iyileştirmektedir. Son yapılan araştırmalara göre, hükümetler yerel firmaların petrol üretmelerini desdekleyerek ekonomik büyümeyi değiştirmek için çaba harcamaktedırlar. Bu bağlamda, mevcut çalışmanın amaçlarından bir tanesi Yerel Petrol Firmalarının ekonomik büyümeye olan etkisini ölçmektir. Çalışmayı orijinal kılan bir diğer husus da petrol üretiminin ve dolayısı ile Yerel Petrol Firmalarının askeri harcamalara nasıl etki yapacağının incelemesidir.

Çalışmadan çıkan sonuçlara göre Yerel Petrol Firmaları, hükümetlerin ekonomik büyümeyi sağlamalarında ve petrol ihracatının artırılması sureti ile askeri harcamalara destek çıkacak olan refah seviyesini yükseltmelerinde önemli bir katkı yapmaktadırlar. Dolayısı ile, mevcut çalışmadan çıkan sonuçlar doğrultusunda, ekonomik büyümeyi iyileştirmek ve bu bağlamda askeri harcamalarını artırmak isteyen ülkeler, Yerel Petrol Firmalarına ve petrol üretimine gereken önemi vermeli ve bu firmaların en iyi şekilde faaliyetlerini sürdürebilmeleri için en etkin staratejileri geliştirmelidirler.

Anahtar kelimeler: Yerel Petrol Firmaları, Orta Doğu, Ekonomik Büyüme, Petrol Üretimi ve Ticaret, Askeri Harcamalar.

ACKNOWLEGMENTS

I would like to thank the people who helped and supported me to write this thesis. First, I want to thank my supervisor, Associate. Prof. Dr. Mustafa Tümer, for his valuable guidance and advice and also I want to thank Murad Sharife for his help.

Big thanks to my family for supporting me all these years, and also I want to thank my friend Kamran Pourbemani who helped me and always be by my side.

I dedicate this thesis to my parents who unremittingly supported me during my years of study. They made this work possible.

TABLE OF CONTENTS

LIST OF GRAPHS

LIST OF TABLES

LIST OF SYMBOLS/ABBREVIATIONS

NOCS .... National Oil Companies

OPEC .... Organization of the Petroleum Exporting Countries

GDP .... Gross Domestic P

IOCs .... International Oil Companies

b/d .... Barrel per Day

R^2 .... R Square

β .... Beta

Chapter 1

INTRODUCTION

1.1 Background

Oil is not a new discovery, and its current important roles as a complete ingredient of trade, economy, politics, and technology has its roots in the first of 20th century. As oil play a significant role in their country also oil companies have notable role in trading of oil, economic development, politics and also stability of one country. But the theoretical framework of what oil companies' means and their functions are missing; it means there is no exact definition of what kind of impact they have in domestic country and also in international zone. This paper will work on fragmented to show the important roles of oil companies, especially national type, associated with trade of oil, economic growth and failed or successful of one economy.

The definition of National Oil Companies, in short NOCs, is companies that fully or in the majority owned by a national government. According to the United States Energy Information Administration (2007), "NOCs accounted for 52% global oil production and controlled 88% of proven oil reserves in 2007. Of the top 25 oil and gas reserves holders and producers, 18 are NOCs". In many countries oil and gas nationalized by their governments in Organization of the Petroleum Exporting Countries (OPEC). The result of nationalization oil companies became more commercial in orientation and went downstream to distribution, refining and also sometimes petrochemical production. After two decades past, the role of national oil

companies start decreasing. In that situation countries preferred to use the international oil companies and they find out in some aspects international oil companies are better than using national types. But in the early of 1990s oil price failure and international energy world consolidations caused that industry structural shifting which is continued until today. The important situation of national oil companies today is based on that structural shifting.

In this paper the changing role of national oil companies will be explain; furthermore, the effect that these type of oil companies have on economic growth, export of oil and defense expenditure will be examined and explained. Moreover, as will be shown the impact of oil output of national oil companies on other variable will be examined; this examination is for time series for 33 years of six major oil riche countries not only in Middle East region but also in international oil market.

The six Middle East countries were chosen because of their critical situation in oil market, military position in Middle East region. These countries also have noticeable share in military position in their region.

So after study this paper, the explanation of national oil companies will be clearer and with that definition the role of these types of oil companies in their domestic country and the countries that related with them will be more significant especially in economic growth, oil trade and military expenditure.

Associated with this subject, the economic growth and its impact on trade of oil based on oil price and oil production will be examine for the purpose ranked the effect of national oil companies output on trade and also military spending.

1.2 Aim and Objective

Current investigation focuses on measuring the effect of national oil companies on major sections of one country through the Middle East region. In order to critical position of oil today, this paper will be developed and analyzed the theoretical and mathematical model of national oil companies' output on three most important factors:

- Economic Growth
- Trade of Oil
- Military Expenditure

The key conclusions of analyses of each country that chosen as case study, are relative to GDP growth, when NOCs replaced with International Oil Companies, and trade of oil will rise by more oil production and effected by economic growth directly.

Furthermore, in conclusion we realized that when economic growth directly affect trade of oil, wealth of this affection will be helpful for stability of domestic country; due to the wealth government get richer and can be more stable by spending the benefit on military expenditure and prove their policy.

Moreover, we realize that national oil companies are prefer to support their economic growth and are likely to sell their products with subsidized price to their domestic markets.

As a result of aiming to demonstrate the effect of national oil companies, export of oil is highly affect by the fluctuation of oil price; also another factor, economic growth, directly affected by fuel export and oil price and indirectly by oil production.

To assess whether there are any empirical role or evidence that was consisted with our theoretical and mathematical model, we analyses the six oil rich countries of Middle East. These countries, as mentioned before, are the producers of half of oil production in the world oil market. Further, these countries play an important role in defense section of Middle East region. The sample countries' analyses is for over a period of 33 years; because these years include the oil boom history, Oil war history and also the oil gold age.

The theoretical method that used developed because of the chosen selection of variable. The data includes total oil and gas production as percentage of GDP growth, oil and gas rents, Oil price as international price for Dubai which is for Middle East region based on US Dollars, also Total Fuel export as percentage of merchandise exports and GDP growth as percentage of annual growth and at the end Military Spending as annual growth percentage.

That is to say, the thesis hypothesis seek to test if the goals and consequent behavior of NOCs is likely to affect the oil production and every variable that effect by output of these companies like economic growth, oil trade and defense section.

1.3 The Problem Statement

Recently, the oil market growth generated a big reason for discussion about the provision of oil companies for their role in oil export, economic growth and the new role in military expenditure.

Anyhow, in recent decades, national and state oil companies become larger and stronger to prepare more activity for economic growth. However, the problem is the connection of NOCs and GDP growth with measuring total Fuel Export, Military Spending, oil export and oil rant.

As a result, in order to annual natural energy reduction, the oil companies, especially the national types, should manage the refining and exploration of oil; due to that also they should organized best way to handle the export of oil for take more wealth than loose and spend that benefit for replacing of oil with another energy.

The research scope could be expressed in chronological order below:

1. To identify the National Oil Companies and their advantages in order to Middle-East countries during 33 years.

2. To demonstrate the effect of the oil companies on fuel export, economic growth, military expenditure.

3. To calculate the effect of National Oil Companies output use on different country with different resources.

4. To analyze the sensitivity of GDP growth measures the oil rents, military spending and total fuel export.

5. To analyze the sensitivity of Military Spending measures the oil rents, GDP growth and fuel export.

6. To detected the NOCs affection on political and society stability in sample countries.

7. To study more about the impact of each parameter on each other across the model that chosen.

8. To compute the effect of using the NOCs instead of IOCs on GDP growth and oil export.

9. To understand the best combination of oil price and oil production to obtain economic development and rise international trade.

1.4 Limitation

In this study, International trade, Economic development and growth are examined in Middle East countries from 1960 until 2012. The cases are "Middle East" project in 6 Middle East countries which are shown different examples of biggest oil owner countries. "Middle East" countries consist of only countries which have oil and use NOCs. In this case, the hypothesis of NOCs examined was effective in the international trade, economic development and annual growth; and it focused on the connection between oil market and its affection. The sample as case study is selected from sixth different countries to identify the role of different geographic region to define the model of the oil companies through trade and economic development. In

this research, the period of companies construction has not been considered in the similar timing in these countries selected, due to the fact that companies which are exist continuously have been worked according to residents need and their economic and traceable background. Also the period of oil production in each country, due to refining and exploration, is going to be different.

1.5 Methodology

The thesis is based on the quantitative research methods blended with econometric and historical reports of the selected countries. It has been classified in five different but related sections: the first section is introduction and background of the study, the second one is a literature review and study previous research about the impact of companies in international trade, economic growth and political and military spending. Subsequently, it has focused on literature review of economic growth theory and its relation with oil export and military spending and also oil rent to create a background for the study. The third section investigated the definition of Middle East countries and researches more about the process of oil explosion and oil market of these countries. The forth one is define the hypothesis to demonstrate the core and aim of this paper. The last but not least is the methodology and data analyses of sixth specific case studies, which are selected from sixth different regions, from Middle East.

Sixth countries are selected from Middle East to examine the model of companies' affection in different section. The reason of this selection is because of their strategic location in the region and their productivity which take place in the oil strategy spaces that affect the model. The method for collecting data was select the secondary data of each country in three different part, the international trade, economic growth

to gather and military spending. Besides, the distinction of location background in these regions wills explained the several model of affection in a relatively other countries.

Chapter 2

CONCEPT OF NOCs IN LITERATURE

2.1 Introduction

Nowadays, different types of oil companies become one of the significant subjects for researchers, oil market members and stockholders due to the key role of the oil within countries and their valuable role in economic life. According to the United States Energy Information Administration (2007), 52% global oil production accounted for NOCs and 88% of proven oil reserves controlled by them in 2007. In other words, growing of NOCs in these decades is an important subject that need more research to know the affection of them on oil market. Moreover, they are the 'Economic Pulse' of the countries, which improve domestic business and financial structure. They may provide different International cartels for their activities like OPEC.

The future form of oil and gas industry has changed. The 100 years history of oil in Middle East market and the competition of private oil companies to gain reserve of oil showed that oil in each period play a significant role in oil riche countries and also in other once that trade with oil riche countries. Since 2005, the oil and gas prices have been changed and start moved to high levels.

In the different part of the world gain of new technology for producing oil and gas is providing new opportunities, but whilom unsure diverse for oil and gas producing.

There are still opportunities for private companies in old fashion way of oil exporting countries where the monopoly state is govern everything, but it based on oil and Gas Company which involve cooperation with the state-controlled. The main question is what kind of oil and gas companies will play an important and an efficient role in these countries; also how these companies will affect economic growth and trade of oil. There will be still another question that "can be as will oil companies production used in military and army sector of these countries?"

The industry's answer to these kinds of challenges will be valuable for the environment and global economy. According to the OPEC annual report, 57% of the commercial energy of world consumes with Gas and oil, and their combustion accounted for roughly the same proportion of global CO_2 emissions. Exports of oil and gas are more than 15% of the value of global exports and provide more than 25% of GDP in Central Asia, Russia and partners of the Organization of the Petroleum Exporting Countries (OPEC report May 2012).

John Mitchell argues that "oil and gas sector invested over 10% of the value of the world's stock market. Fluctuation in this industry will affect who depend on oil and gas products or try to eschew the social and environmental effects of using them, likely as shareholders and governments who seek dividends and tax revenues from their activities" (October 2012).

Despite the large number of studies attempting to model oil and gas companies their role and behavior in an important section of oil export and economy growth over three past decades, still there are no specific models for national oil companies. The literature review that presented determines that whole empirical literature, that study

here, remains indeterminate regarding companies role and that specialist still have several opinions about what model represents the oil companies structure and is better for companies behavior.

Further, in this chapter we will explain what exactly NOCs mean and the role of them on two major variables: International trade, Economic growth. Moreover, the oil and gas companies provide environmental impact and provide social and economic services which have an important role on the livelihood of modern countries and the well on domestic residents.

Studies showed that growth and development of the residents' country could be raise by NOCs. Therefore, the oil companies especially the NOCs should be interrelated to the others and to the domestic countries.

The various benefits for residents provide by oil companies which is apparent from the studies. This chapter has focused on the role of these companies in sample due to its economical and international trade impacts. After reviewing the literature, the relationship between different oil companies and GDP growth and concept of their effect on international trade, economic and military section will be examined. The methodology and model will be chosen based on literature and also based on the hypothesis that will explain in chapter 4.

Moreover, in the end of this chapter the other sections that oil and gas companies' effect on them such as social and political effect will be explain.

2.2 Oil and Company's Role

This literature review will explain two categories (1) Defining oil companies, in the first section, we look at different oil companies definitions treatment to date with more explanation on the National Companies as we endeavor building an obvious structure from our research; (2) the second section covers the effect of NOCs on export of oil, economic growth and military expenditure. The aim of this part is to show what exactly we choose as topic and explain why choose this model.

2.2.1 National Oil Companies (NOCs)

Nowadays, oil companies, especially national types, become interesting subjects recent decades for researchers, governments and policy due to the absence of the obvious definition and their valuable role in economic growth and trade of countries. "The growth of NOCs has not been only because of rise in oil price but also has been for the improvement of their skills, rising of capacity, learning of operate the international environment and manage their resources to work more effectively." Khalid Al-Falih, Saudi Aramco's President.

Exact definition of National Oil Companies based on World Bank 2010 is "National Oil Companies, in short NOCs, are companies that fully or in the majority owned by a national government". According to the United States Energy Information Administration (2007), 52% global oil production accounted for NOCs and 88% of proven oil reserves controlled by them in 2007. In other words, growing of NOCs in these decades is an important subject that need more research to know the affection of them on oil market. Moreover, they are the 'Economic Pulse' of the countries,

which improve domestic business and financial structure. They may provide different International cartels for their activities like OPEC.

The 18th of NOCs include in the list of top 25th producers and reserves holders of gas and oil. Many countries oil and gas nationalized by their governments in Organization of the Petroleum Exporting Countries (OPEC). The result of nationalization oil companies became more commercial in orientation and went downstream to distribution, refining and also sometimes petrochemical production. After two decades past, the role of national oil companies start decreasing. In that situation countries preferred to use the international oil companies and they find out in some aspects international oil companies are better than using national types. But in the early of 1990s oil price failure and international energy world consolidations caused that industry structural shifting which is continued until today. The important situation of national oil companies today is based on that structural shifting.

2.3 Advantage of NOCs

Over the past few decades, discussions over the connection of oil companies with trade and economic growth have become extremely heated due to the lack of knowledge about how different types of oil and gas companies can affect.

According to Michael C Daly (2005) "The world's great international oil companies are not play a significant role in the world's oil market". In other words, the role of international oil companies start decrease and the NOCs growing fast. Moreover, they are the 'economic heart' of the countries, which improve government's economic growth and wealth. They may provide planes for recreation activities like engaging more domestic producers and suppliers, encouraging new entrepreneurship

in sectors of energy that is related and also they will circumfusing their fortune according to John McCrery.

Further, John McCrery (2004) argued that a prosperous strategy could be great help to obtain harmony of three major outcomes: providing domestic job opportunity and wealth, preparing attractive benefits for who invest in that sector, and improving public account.

Studies showed that the NOCs increase not only the economic growth of the residents live but also they can cause improving economic factors in other countries and raise their domestic and international trade (José de Sá 2004).

He also argues that "leading NOCs not only channel capital, technological and operational know-how into the country, they also serve as custodians of their nation's wealth. Ideally, they help insulate the socioeconomic development strategy from pulls and pressures, and they guard its integrity as the country moves through economic cycles. Most important, they maintain a steady course in the quest for global competitiveness. The best NOCs serve national interests the most when they bring global standards home".

It is obvious from the researches that NOCs provide various benefits for their countries and government. Therefore, this chapter has focused on the role of NOCs in domestic country due to their economical and tradable impact. The next section (chapter 5) will examine the relationship between different oil companies and residential growth and development of GDP; also will examine the concept of using NOCs on domestic countries in terms of annual fuel export and spending on military.

In counties section of this chapter I will review the literature which are, somehow, related to my topic to draw a good model and hypothesis for thesis in better way.

2.3.1 Economical Effect

According to Daniel Brumberg (2007) the national oil companies serve as an agent of the state, generating profits internationally that are then redistributed as rents domestically. This author believes that in this way the state achieve a degree of political-autonomy, but paradoxically is economically constrained because its legitimacy is now tied to providing economic benefits in return for the political quiescence of population.

There are both significant institutional similarities and differences among National Oil Companies. "The most faced conundrum similar to other state-owned enterprises (SOEs) in being subject to political dictates for full employment and cheap domestic supply that contradicts profit-maximizing strategies available to privately-held firms"(Ariel I.Ahram).

Since the oil resources are placed in the category of natural resources, also be noted the articles shows the connection of economic growth and oil resource. The start - up of the new era of the theory of development growth in late 1980s and publication of internationally comparable data in the wide range, is making possible studies of the growth of the country in the different branches of growth including abundance of natural resources such as oil in the 1990s. Baro (1991) has provided the base of the international growth studies and Gelb (1988) and Auty (1990) have provided the bases of the assumptions test of the studies of the inter-country growth in the economies with natural resources. Duncan (1993) showed that the Sub-Saharan Africa countries have failed to diversification of export of unprocessed raw material to export with faster economic growth. Fosu (1996) showed that the development of the primary products export has a trivial effect on the non-export GDP growth

however it has a positively effect on growth and development of economic. Sala - i - Martin (1997) and Doppelhofer et al (2000) were considered natural resources as one of the main variables in the empirical studies of economic growth.

2.3.2 Trade and Oil Company Effect

National Oil Companies by their oil production and export it as global, directly affect economic growth of one country. According to the Ebrahim Nabiuny and his partners in 2012 "The Export of oil has a noticeable share in the economics of oil reach country. The income earned from export of oil is very important because it is providing part of country's foreign exchange needs and a major part of government spending."

Also these companies have effect on political stability. Olomola Philip Akanni argue that in his article conclusion "Even if the price of crude oil is determined outside the economy, the quantity to be produced and sold in the international market is a function of the level of domestic political stability and general economic activities in the oil exporting country."

2.3.3 Social and Political can Effect

HECTO(an energy company) in National Oil Company article's argue that " there is no doubt that NOCs have facilitated the achievement of frequently extra ordinary for their societies, including the acceleration of technology transfer, development of human capital, the transfer of sovereign shareholders." (May 2005)

In a recent paper, Robinson et al. (2006) modeled a situation in which politicians in developing countries seem to have quite a large amount of autonomy from interest

group. This follows from the group formation effect postulated by Ross (2001), where increased oil wealth permits government to thwart the formation of social and pressure groups to demand political rights, or even influence the outcomes of elections, and increase resource misallocation in the rest of the economy (Mehlum et al., 2005). For example, in a study of effects of the oil boom in Nigeria, Gavin (1993) found that between 1973 and 1987 employment in all sectors contracted with the only exception being the service sector, which included government employment. This led to a highly bloated public sector. Government paid huge wage bills. More importantly, this effort was seen as a deliberate policy by the then government to stay in power despite an earlier promise to withdraw in 1975 (Gavin, 1993). Ross (2001) found that oil rents do inhibit democratic governance not only in the Middle East, as formally claimed in previous empirical studies, but also in other oil exporting countries like Indonesia, Malaysia, Mexico and Nigeria.

2.4 Conclusion

The review of literatures explained the economic, political and social benefits of NOCs. It showed that the NOCs provide opportunities for development, social interaction and more stability. It also promotes trade benefits for the residents. The results of the literature review (Sala - i - Martin 1997 and Doppelhofer and et al. 2000) explained that natural resources as one of the main variables in the empirical studies of economic growth. As it is discussed through the several studies (Ebrahim Nabiuny & his partners, 2012; Olomola Philip Akanni), the income earned from export of oil is very important because it is providing part of country's foreign exchange needs. Furthermore, other studies (Robinson et al. 2006; Gavin, 1993; Ross 2001) demonstrated that NOCs provide social networks for social activities, which is created social contact between the government and the companies. Besides the

NOCS increase the power of their government, other important factors in politics are governments to stay in power. In sum, NOCs can be effect in the residential countries in three different levels with economical, export, political and social parameters.

Chapter3

THE CASE STUDY BACKGROUND

3.1 The History

The oldest history for human civilization among the Asia named Middle East. Witnesses of more than twenty important historical challenges in Middle East was started with Persian Greek wars and continued by Arab Spring.

Middle East is the center of world's three greatest religions: Islam, Christianity, and Judaism while this emotional and geographical center of religions contains 92% population of Muslims (292 million people).

After all the newest list of Middle-East countries name by the Central Intelligent Agency (CIA) are:

Armenia, Azerbaijan, Bahrain, Gaza Strip, Georgia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, West Bank, Yemen.

3.1.1 The Economy of Middle East

Middle Eastern economies range from very poor (such as Gaza and Yemen) to extremely wealthy (such as Qatar, UAE and Saudi Arabia). Overall, according to CIA World Fact book 2007 all countries in this region have a positive growth rate.

In terms of nominal GDP three largest economies in 2008 were Turkey ($ 794,228,000,000), Saudi Arabia ($ 467,601,000,000) and Iran ($ 385,143,000,000). These countries also had the largest GDP-PPP which counted Turkey ($ 1,028,897,000,000), Iran ($ 839,438,000,000) and Saudi Arabia ($ 589,531,000,000) in 2008 (World Bank's world development indicators database, 2008).

In terms of nominal GDP per capital, the greatest countries are Qatar ($93,204), the UAE ($55,028), Kuwait ($45,920) and Cyprus ($32,745). Also in regards to GDP-PPP per capital based income, the greatest countries are Qatar ($86,008), Kuwait ($39,915), the UAE ($38,894), Bahrain ($34,662) and Cyprus ($29,853). The lowest-ranking regards to per capital income (PPP), is the autonomous Palestinian Authority of Gaza and the West Bank ($1,100).

The structure of economic in each nations of Middle East is different in the sense that some of them highly dependent on oil and oil-related products in export and trade like Saudi Arabia, the UAE and Kuwait; on the other hand some of them have divers economic such as Cyprus, Israel, Turkey and Egypt.

The industries of the Middle East are so many that some of them that can be mentioned here are: oil and oil-related, leather products, cotton, dairy, cattle, textiles,

surgical instruments, agriculture, military equipment (such as guns, ammunition, tanks, sub marines, fighter jets, UAVs, and missiles).

Another important sector for Middle Eastern nations' economy is banking sector. This sector work as well as oil sectors especially it work as an important sector in UAE and Bahrain.

The socially conservative nature of regions, the political turmoil in center of Middle East, except of the Cyprus, Turkey, Egypt, Lebanon and Israel, resulted the un-development in the tourism section. By the way, in recent years, countries such as the UAE, Bahrain, and Jordan try to be more attractive in tourism section by improving tourism facilities and have better restrictive policies of tourism related section.

According to the annual World Bank report Unemployment is notably high in the Middle East and North Africa region, particularly among young people aged 15–29, a demographic representing 30% of the region's total population. The total regional unemployment rate in 2005, according to the International Labor Organization, was 13.2%, and among youth is as high as 25%, up to 37% in Morocco and 73% in Syria.

3.2 Middle East and Oil

For three generations, the carbon-based types of energy, with more focused especially on crude oil played major role in global economic growth and development. Middle East transformed the indigent economy region into linchpin of the global economy by substantial oil reserves discover in this region. Recent changing, like as Arab Spring which bring political instability and also recent obtaining of nuclear technology for Iran, play an important role in concerning about

oil future that may be result in oil plug could be turned off from the Middle East for a certain time, hindering the recovery of global economic.

According to the IMF it is nearly 40% of world oil exports are estimated by the Middle East regions. History has shown that any disruption in oil trade from Middle East can bring economic shock waves around the world.

"The first example of this occurred with the 1973 "Arab Oil Embargo". This unprecedented exercise of economic power by oil producing countries in Middle East caused crude oil prices to be double in less than a year. Most analysts attributed that the oil shock as the primary driver of painful economic recession in the U.S"(Oil and the Middle East 2012).

The important factors of the oil producing countries of the Middle East are a variety of issues:

•   The export

•   Widespread geopolitical instability

•   Economic inequality

•   Potential for armed conflict both within the borders of several nations and with neighboring countries

This paper will examine the affection of the National Oil Company type that use, and after will discussed how these affections could result in the flow of oil exports and estimates the economic impact on the global economy under various scenarios and how army spending will affect.

3.2.1 The Limitation

It is obvious Middle East countries as suppliers of oil through the world are not equally play off in oil and gas sector. For example, with daily oil production of barely 400 thousand barrels per day, Syria's oil production is dwarfed by the more than 12 million barrels per day that come out of Saudi Arabia (OPEC annual Bulletin).

Saudi Arabia, the largest supplier, is not likely to face any significant supply disruption given its considerable military defenses and its status as strategically of the U.S. The same cannot be said, for other countries in the region such as Iraq. The recent withdrawal of U.S. troops in that country resulted in power vacuum that has given rise to increased sectarian violence in already fragile society. Iraq was the world's twelfth largest oil producer in 2010 but has the world's fourth largest proven petroleum reserves (trailing only Saudi Arabia, Canada and Iran). Iraq will remain one of the critical players in the region's oil output.

Another challenge that has developed in recent months is the tension over Iran's apparent attempts to develop nuclear weapons. The U.S. and its allies have indicated a determination to prevent this from occurring. Both sides are on a collision course, with the most likely outcome being the imposition of punishing economic sanctions in an effort to deter Iran from its nuclear ambitions. These sanctions could include steps to curtail Iranian oil exports, adding to the strain on global energy supplies.

Iran's military goals appear to stand in stark contrast to those countries like Saudi Arabia. Although the Saudis maintain significant military force, its focus is mainly defensive. On the other hand, Iran is not only pursuing an aggressive military

expansion, including the possible development of nuclear weapons, but has consistently meddled in regional politics. According to the US Bank its actions have been both overt, such as the 1990s war with Iraq, and covert, including support for Hezbollah and other militant groups. For these reasons, Iran has long been viewed as one of the most dangerous countries through the world. This greatly contributes to the region's instability and to oil price volatility.

3.2.2 The Sectarian tensions

Tension between Shiite and Sunni, the branches of Islam, is the other threat in Middle East. This issue is a centuries old rift that continues until recent years and give raise the intense distrust and competition within the people of these regions.

There are other significant differences that contribute to tensions across the Middle East. These tend to be philosophical distinctions related to:

- Economic opportunity
- International alliances
- Military goals
- The existence or lack of democratic institutions

3.2.3 The Geographical Tensions

As if social and political tensions in the Middle East weren't enough, geography also plays a crucial role in underscoring the fragility of oil exports from the region. As indicated in the following illustration, the flow of oil exports is highly dependent on the ability to transport oil through sometimes sensitive "choke points," including:

- The Suez Canal

- The Bab el-Mandeb Strait (commonly referred to as the "Gate of Grief")

- The Strait of Hormuz

With an estimated flow of more than 15 million barrels of oil per day through the Strait of Hormuz, it is easy to understand why Iran views its control of these shipping lanes as leverage to respond to international pressure regarding its nuclear ambitions.

Although it is highly unlikely that such an attempt would succeed, the impact on the global economy could be dramatic.

3.4 Who has the Oil?

Collectively, Middle East is famous for its oil producing and exporting of oil production and also military spending of oil output on the army and buy weapons. The widespread of oil through this region, bring both wealth and labor movement. In recent year most of countries in this part of world have undertaken efforts to diversify their economies. In the report, science- Matrix " the number of scientific publications listed in the web of science data base shows that the standard growth in the Middle East, particularly in Iran and Turkey, is nearly four times faster than the world average".

But it is obvious that all the countries in this region do not have equal oil and natural gas. For example Afghanistan, Lebanon and Jordan do not have oil at all. These three countries not included in the list of Middle-East Oil Countries. Israel, Palestine, Lebanon, Jordan, Syria, and Turkey have limited oil resources if any.

The purpose of this paper, in term "Middle East" oil-rich countries, in southwest Asia, including: Bahrain, Iran, Kuwait, Oman, Saudi Arabia, Syria, is to measuring NOCs' effect on their trade, economic development and also their oil spending on military and army. Also Iran, Iraq, Syria, Kuwait, Saudi Arabia, Bahrain, Qatar, United Arab Emirates (UAE), Oman, and Yemen have a zone of 5.1 million square kilometers or about 3.4% of Earth's land surface, but they own 60% of world's known oil reserves and 41% of natural gas reserves.

But for the measuring the effect of NOCs on trade of oil and economic growth on Middle East countries I will only use the countries with higher oil production through these ten. Further the samples that I choose are using the NOCs in oil and gas section; which going to be Bahrain, Iran, Kuwait, Oman, Saudi Arabia and Syria. These sixth countries will be the major samples for my topic and I will be show the role of NOCs in this region.

The chapter will cover the case study and will explain more about countries and their oil companies separately. All the companies that use as sample will be bring in appendix by their activity separately.

3.4.1 Bahrain

According to the 2011 Index of Economic Freedom published by the Heritage Foundation and the Wall Street Journal, Bahrain has the freest economy in the Middle East and North Africa region and is tenth overall in the world.

Owing to large oil deposits and a small population Bahrain has a per capita GDP of $27,300 (CIA World Fact book). The crude oil of Bahrain imports from Saudi

Arabia, then state oil companies refine it and re- exports it. Bahrain has developed its industrial capacity to include other related industry like Aluminum; also signed a Free Trade Agreements with United States for expand its export.

BMI View: Always limited in scale, Bahrain's oil and gas sector is limited in ambition; attempts to produce more oil and gas from its offshore acreage are unlikely to yield material fruit in the near-term. Perhaps more significant are efforts to move into more lucrative petrochemicals value-adds related to its refining project at Sitra. The prospect of building an LNG receiving terminal is another potentially significant landmark, and the government has served notice that a decision on who to build it is expected before year-end 2012. Political unrest remains a key risk in Bahrain, but under the Saudi - assured security pact, we do not envisage unrest having a significant impact on the sector overall.

• BMI sees Bahraini oil production rising to as much as 95,000 barrels per day (b/d) by 2021, in line with efforts to boost output at the mature Bahrain field. We expect oil consumption to grow to almost 60,000b/d.

• Oil and gas reserve is expected to be declined in an 11 years horizon between 2012 and 2021 depending on new discoveries. Oil reserves are expected to fall to 112mn barrels (bbl.) by 2021, with gas reserves falling to around 80bn cubic meters (bcm). According to Tatweer Petroleum, the joint venture between Occidental Petroleum (Oxy) and Mubadala Development Company, oil production increased by 33% in 2011 to 45,000b/d.

- Gas production and consumption are likely to grow in tandem to around 19.5bcm by 2021.

- Risks to our forecasts include final approval for the expansion of the Sitra refinery, enlargement of the Saudi import pipeline, as well as for a proposed LNG import terminal to feed growing gas demand.

- State-run firms Bahrain Petroleum (BAPCO) and Saudi Aramco are considering a scheme to replace upgrade and redirect a pipeline that links Saudi oil fields to Bahrain's only refinery. The project is expected to increase the capacity of the pipeline to 350,000b/d.

3.4.1.1 Top Oil and Gas Companies in Bahrain

In Bahrain 60% of export receipts from petroleum production and processing, it account for about 60% of government revenues, and 30% of GDP. Since 1985 changing fortunes of oil have fluctuated economic conditions, the best example is during 1990-91 which called Gulf War.

Bahrain is planning to spend more than $20 billion in the next 20 years on developing its oil and gas sector, this would include an expenditure of $15bn on the development and modernization of the Bahrain Oil Field and $5bn on modernizing Bapco refinery.

This will increase Bahrain production per day to around 105,000 barrels per day (bpd).

The top National Oil Companies in Bahrain are: Bahrain Petroleum Company (BAPCO), National Oil & Gas Authority, Gulf Petrochemical Industries Company (GPIC), Bahrain National Gas Co (BANAGAS).

3.4.2 Iran

Iran conducted 10% of world's power oil reserves and 15% of its gas reserves (US Department of Energy). Since 1913 Iran has been a major oil exporter. Iran's major oil field placed in the central and southwestern of the western Zagros Mountains. Also oil will found in Northern of country and in the Persian Gulf.

The revolution for new government in 1979 caused oil production reduced. Furthermore, during the Iran-Iraq war a decline in production was occurred as result of damage to oil facilities. But during late 1980s when pipelines were repaired and new Gulf fields were exploited which led to a surge in oil production. During 2004, annual oil production reached 1.4 billion barrels producing a net profit of $50 billion (Barry Schweid, 2006). Iran officials estimated that: Iran's annual oil and gas revenues could reach $250 billion by 2015 once current projects come on stream.

In FY 2009, the sector accounted for 60 percent of total government revenues and 80 percent of the total annual value of both exports and foreign currency earnings. Oil and gas revenues are affected by the value of crude oil on the international market. It has been estimated that at the Organization of the Petroleum Exporting Countries (OPEC) quota level (December 2004), a one-dollar change in the price of crude oil on the international market would alter Iran's oil revenues by US$1 billion (Kurtis, Glenn 2004).

In 2010, Iran oil exports were around 2.6 million barrels of crude oil a day, and reached the second-largest exporter among the Organization of Petroleum Exporting Countries. In the same year, officials in Iran estimate that Iran's annual oil and gas revenues could reach $250 billion by 2015. According to IHS CERA estimate, oil revenue of Iran will increase by a third to USD 100 billion in 2011 even though the country is under an extended period of U.S. sanctions. Iran plans to invest a total of $500 billion in the oil sector before 2025 (Jay Solomon, 2011).

3.4.2.1 Trade in Oil

"In 2006 exports of crude oil totaled 2.5 Mbbl/d (400,000 m3/d), or about 62.5 percent of the country's crude oil production. The direction of crude oil exports changed after Revolution because of the U.S. trade embargo on Iran and marketing strategy of the NIOC. Initially, Iran's post-revolutionary crude oil export policy was based on foreign currency requirements and the need for long-term preservation of the natural resource. In addition, the government expanded oil trade with other developing countries. While the shares of Europe, Japan, and the United States declined from an average of 87 percent of oil exports before the Revolution to 52 percent in the early 2000s, the share of exports to East Asia (excluding Japan) increased significantly. In addition to crude oil exports, Iran exports oil products. In 2006 it exported 282,000 barrels (44,800 m3) of oil products, or about 21 percent of its total oil product output. Iran plans to invest a total of $500 billion in the oil sector before 2025" (Kurtis, Glenn; Eric Hooglund 2006).

Several major emerging economies depend on Iranian oil: 10% of South Korea's oil imports come from Iran, 9% of India's and 6% of Chinese. Moreover, Iranian oil makes up 7% of Japan's and 30% of all Greek oil imports. Iran is also a major oil supplier to Spain and Italy. In the same year, officials in Iran estimate that Iran's annual oil and gas revenues could reach $250 billion by 2015 once the current projects come on stream (Yadullah Hussain, 2011).

According to IHS CERA estimate, oil revenue of Iran will increase by a third to USD 100 billion in 2011 even though the country is under an extended period of U.S.

sanctions. As of January 2012, Iran exports 22% of its oil to China, 14% to Japan, 13% to India, 10% to South Korea, 7% to Italy, 7% to Turkey, 6% to Spain and the remainder to France, Greece (& other European countries), Taiwan, Sri Lanka, South Africa (New York Times, 2012).

3.4.3 Kuwait

Kuwait is a small, relatively open economy with proven crude oil reserves of about 96 billion barrels (15.3 km3), i.e., about 10% of world reserves; Petroleum accounts for 43% of GDP, 87% of export revenues, and 75% of government income (Kuwait Economic Report 2010).

"In 1934, the ruler of Kuwait granted an oil concession to the Kuwait Oil Co. (KOC), jointly owned by the Anglo-Persian Oil Company (later British Petroleum Company) and Gulf Oil Corporation In 1976, the Kuwaiti Government nationalized KOC. The following year, Kuwait took over onshore production in the Divided Zone between Kuwait and Saudi Arabia. KOC produces jointly there with Texaco, Inc., which, by its 1984 purchase of Getty Oil Co., acquired the Saudi Arabian onshore concession in the Divided Zone" (The World Fact book, 2008).

In the Offshore Divided Zone, the Arabian Oil Co. – 80% owned by Japanese interests and 10% each by the Kuwaiti and Saudi Governments – has produced on behalf of both countries since 1961. The original concession agreements will expire in January 2003; negotiations to replace the concession with a technical service agreement should be completed in 2002.

Kuwait imports a wide range of products ranging from food products and textiles to machinery. Kuwait's most important trading partners are Japan, United States, India, South Korea, Singapore, China, European Union and Saudi Arabia. Japan is the largest customer of Kuwaiti oil followed by India, Singapore and South Korea.

Government of Kuwait owns the oil industry which control a major part of country's economy and counted 43% of the GDP. Internal needs play an important role in Kuwait's oil exports vary. Also oil exports vary depends on internal demand and prices and production quotas fixed by OPEC.

According to the 2008 Index of Economic Freedom, Kuwait has the second-most free economy in the Middle East. In March 2007, Kuwait's foreign exchange reserves stood at US$213 billion. The Kuwait Stock Exchange, which has about 200 firms listed, is the second-largest stock exchange in the Arab world with a total market capitalization of US$235 billion. In 2007, the Kuwaiti government posted a budget surplus of US$43 billion.

Kuwait's chief oil companies are:

• Kuwait Petroleum Corporation (KPC): Holding group responsible for international marketing.

• Kuwait Oil Company (KOC): Crude oil exploration and Development Company.

• Kuwait National Petroleum Company (KNPC): Runs oil refineries across Kuwait.

• Petrochemicals Industries Company (PIC): Petrochemical and fertilizer manufacturer.

- Kuwait Petroleum International (KPI, also known as "Q8"): Runs refining and marketing business overseas.

- Kuwait Foreign Petroleum Exploration Company (KUFPEC): international oil Exploration Company.

- Equate petrochemical company (EQUATE): A petrochemical company formed by PIC and Dow Chemical.

- Petroleum Training Centre (PTC): Responsible for all training and career development within the KPC companies.

- Kuwait Oil Tanker Company (KOTC): Crude oil shipping

- Kuwait Aviation Fueling Company (KAFCO): Aircraft fuel

- Kuwait Gulf Oil Company (KGOC): Oil and gas exploration and production in the Saudi-Kuwaiti neutral zone; joint venture with Saudi Arabia.

- Oil Sector Services Company (OSSC): Handles all construction projects, maintenance, security, fire-fighting, and medical services to all oil sector employees and their families.

- Oil Development Company (ODC)

3.4.4 Oman

"Oil was first discovered in the interior near Fahud in the western desert in 1964. Petroleum Development Oman (PDO) began production in August 1967. The Omani Government owns 60% of PDO, and foreign interests own 40% (Royal Dutch Shell owns 34%; the remaining 6% is owned by Companies Franchise des Petrol's [Total] and Partex)" (World Bank, 2010).

In 1999, owing to the mid-year upturn oil prices, Oman's economic performance improved significantly. Also privatization of government's utilities, growing of mercantile rules to comfort foreign investment, and increased budgetary outlays pushed Oman's government ahead.

Over the past 30 years benefit that made by petroleum products and oil fuels had empowered the Oman's dramatic growth.

Between 2000 and 2007, production fell by more than 26%, from 972,000 to 714,800 barrels per day. Production has recovered to 816,000 barrels in 2009, and 930,000 barrels per day in 2012. Oman's natural gas reserves are estimated at 849.5 billion cubic meters, ranking 28th in the world, and production in 2008 was about 24 billion cubic meters per year. (The National, 2012)

3.4.5 Saudi Arabia

The Saudi Arabia is an oil-based economy which is strongly controlled by its government. About 18% of the world's proven petroleum reserves possesses by this country; also this state plays a leader role in OPEC for several years; it gets higher ranks as the largest petroleum exporter through all over the world.

Energy in Saudi Arabia describes energy and electricity production, consumption and export in Saudi Arabia. Saudi Arabia is one of the world's largest energy producers, pumping approximately 10.782 million barrels per day (1.7142×106 m3/d) of petroleum. While most of this is exported, domestic use is rapidly increasing, primarily for electricity production (Energy Information Agency, 2007).

The second to Venezuela position by Saudi Arabia which makes this country become one of the greatest oil reserves among the global oil countries. Also it is the first country in oil producer and oil exporter.

As it seems this countries' economy is petroleum- based; 90% of export of Saudi Arabia and around 75% of its government revenues is made by oil. The 45% of oil producers of Saudi Arabia are for gross domestic product, against 40% from the private sector. The per capital GDP of this country is $20,700. The economy is still very dependent on oil in spite of a diversification effort, in particular in the petrochemical sector.

In Saudi Arabia according to annual statistic reports, petroleum sector account for 92.5% of the revenues' budget, 55% of GDP, and 90% of export earnings. The government encouragement of private sector caused oil private sector reached about 40% of GDP.

3.4.6 Syria
The Syria has diversified economy that rotates around agricultural, tourism, and oil. In 1960s the GDP per capital expanded 80% could gain a peak of 336% of GDP growth during 1970s.

The economy shrank by 33% proven unsustainable economy during 1980s. (CIA World Fact Book). However the GDP per capita registered a very modest total growth of 12% (1.1% per year on average) during the 1990s due to successful diversification.

3.4.6.1 Trade in oil

Among Eastern Mediterranean countries, includes Lebanon, Jordan, Israel, the West Bank, Syria, and Gaza, Syria is the only nation that producing significant crude oil. Syria had 2,500,000,000 barrels (400,000,000 m3) of petroleum reserves as of (oil and gas journal, 1 January 2010).

The net petroleum exports of Syria in 2009 were estimated to be 148,000 bbl. /d (23,500 m3/d) (Taib, Mowafa. "2009 Minerals Yearbook: Syria". US Geological Survey).

All of the oil production and exported oil by Sytrol, a domestic oil marketing firm in Syria, which sells most of its volumes under 12-month contracts. Totally around 137,400 bbl. /d (21,840 m3/d) was estimated for Syria crude oil exports, which is mostly go to European Union, especially Germany, Italy, and France (Eurostat, 2009). Also in 2010, oil imports from Syria were estimated $4.1 billion by European Union (European Commission Directorate-General for Energy, 2011.).

3.5 Middle East and Military Spending

While not as great as it had been in the recent past, the role of arms and military spending in the societies and economies of the Middle East region is still much larger than in any other area of the world. It was not until after the Iran-Iraq War and the

1991 Gulf war that these states felt that they could make reductions, necessitated by the 1980s fall in world oil prices, in their very large levels of military spending. Only in Kuwait, for understandable reasons, did military spending in 1995, measured in current dollars, exceed that of 1985. Excepting Kuwait, military expenditures per capita are down across the region, as is the percentage of gross domestic product (GDP) spent on the military.

Those reductions, however, are in levels of military expenditure that were the highest in the world. According to the US Arms Control and Disarmament Agency (ACDA), during the period 1992-1994 the Middle East as a whole imported $34 billion in arms, 43 percent of the world's total; the eight Gulf States account for more than 70 percent of Middle East imports. Up until 1991, Iraq was attempting to develop weapons of mass destruction. It is unclear whether Iran is following a similar course. Iran, Iraq and Saudi Arabia have all obtained significant surface-to-surface missile capacity.

It is easy to understand why military expenditures in the Gulf States are so high: The area has been the scene of two major wars since 1980; there are active territorial disputes between Iraq and Kuwait, Iran and the United Arab Emirates, Qatar and Bahrain, Yemen and Saudi Arabia and latent disputes among several other Gulf dyads. Moreover, these high levels of spending reflect the fact that militaries in these countries provide domestic security for the ruling regimes. Finally, powerful individuals in each of these states benefit from military spending through contracts with defense establishments and commissions on arms purchases.

For three decades, the only significant restraint on military spending had been the amount of revenue available to state elites. The effects of the UN economic sanctions on Iraqi military spending are obvious. In the Arabian Peninsula, monarchical governments are finding increasingly that they can no longer have both unlimited guns and unlimited butter. The oil wealth of the 1970s and early 1980s allowed all Gulf States to increase military spending, seemingly without regard for the price tag. When oil prices fell in the mid-1980s, Gulf monarchies sustained high levels of military and social spending by drawing on reserves and borrowing international and domestic funds. Kuwait and Saudi Arabia funded the Gulf war by substantially depleting their foreign reserves. With oil prices relatively flat since 1991 and growing populations straining the welfare states built during the 1970s, Gulf governments have had to subject even the military to cuts. The extent of those cuts is disputed. The data in this article are taken from The Military Balance, the annual publication of the International Institute for Strategic Studies. Other sources, report slightly different figures. The Stockholm International Peace Research Institute (SIPRI) reports somewhat higher figures for Gulf state military spending; ACDA's figures differ from country to country, sometimes higher and sometimes lower. But the general trend in Gulf military spending is reflected in all the sources, namely, real declines, but still very high levels compared to other areas of the world.

The declines in overall military spending are reflected in similar declines in the dollar value of arms imports. Again, these decreases come from extremely high levels, and the Gulf remains the major arms importing region in the world. Revenue constraints, however, are limiting what seemed in the 1970s and 1980s to be unlimited Gulf spending on arms imports. An important indicator of these revenue

constraints is the fact that Saudi Arabia, which in the 1970s and early 1980s paid cash for American arms imports, has now run up arrears of $13.5 billion dollars in its foreign military sales account with the US government, with a promise to bring the balance down to $10 billion by the end of the year.

One important distinction to keep in mind when examining arms import figures is that arms sales contracts, which get front-page coverage when they are signed, are not the same as yearly arms imports. Major arms sales contracts are always paid for over a number of years, with product deliveries similarly spread out. In the two years following the Gulf war when Gulf monarchies signed orders for over $30 billion in weapons, their actual imports were much less. As a result, the true annual economic burden of arms sales contracts is much less than one might assume from the value of the contracts, although the contracts lock the states into financial obligations for years.

Saudi Arabia's arms import figures justify close scrutiny. Those figures, taken from ACDA, are vastly higher than any other state in the Gulf or, for that matter, the world. They are not an accurate measure of Saudi arms imports, however, because they include the value of equipment purchased for military construction projects. SIPRI calculates that from 1991 to 1995 Saudi Arabia imported $7.1 billion in arms, ranking third in the world behind Turkey and Egypt for that period. In general, SIPRI figures are lower than ACDA figures for arms imports.

The cost of American military involvement in the Gulf is beginning to generate controversy in the US. The debate begins with the numbers, on which there is little agreement among experts. Graham Fuller and Ian Lessor, in a recent article in

Foreign Affairs, contend that the annual cost of American military activity in the Gulf could be as high as $60 billion per year, about one fifth of the total US defense budget. Others contend that this figure vastly overstates the real costs of US operations in the area.

Beyond question, however, is that the US is the largest supplier of weapons to the Gulf area and to the Middle East as a whole. According to ACDA, during the period 1992-1994 the US was the source of over 50 percent of the arms sold in the Middle East as a whole, and approximately 43 percent of the arms sold in the Gulf. Great Britain was a close second on the strength of its massive, multi-year fighter plane sale to Saudi Arabia (known as the al-Yamama deal, with Russia and China supplying the vast majority of Iran's arms imports.

While the Gulf is an important sector of US military activity, the actual US presence is much smaller than in other areas of the world (Europe, East Asia) and much smaller than many people in the Gulf suppose. A significant part of the US deployment in Saudi Arabia maintains the southern "no-fly zone" in Iraq and presumably will leave the region once sanctions on Iraq are lifted. US officials claim that there are no permanent US military facilities in the Gulf aside from the naval headquarters in Bahrain.

Although the US military presence in the Gulf is modest in comparison with other world areas, the US military's concentration on the region has grown steadily since the Soviet invasion of Afghanistan in 1979 prompted President Jimmy Carter to declare that the United States would use military force to defend its vital interests in the Gulf. The Rapid Deployment Joint Task Force established under Carter to

coordinate US military activity has become a full-fledged regional command (Central Command), on the model of US commands in other world areas. The US naval force in the region has been upgraded to fleet status (the Fifth Fleet). The US naval deployments of 1987-1988, to protect Kuwaiti and Saudi shipping at the end of the Iran-Iraq War were quickly followed by the 1990-1991 Gulf war, which saw the deployment of more than 500,000 US military personnel and billions of dollars of US military equipment to the area. The US has negotiated access and/or prepositioning agreements with all the smaller Gulf monarchies. While Saudi Arabia refuses to codify the nature of its military cooperation with the United States, in a new defense agreement, that cooperation remains extensive.

Chapter 4

RESEARCH HYPOTHESES

4.1 Conceptual Model

This chapter contains the perceptual model and the hypothesis of study. The data about each country is presented demonstrating of NOCs' effect which is related to oil production, oil price, oil export, military spending and GDP growth. Finally, at the end of chapter the reason of developing the model will be explained.

The concept of this study is premised on these four main constructs of NOCs affection: GDP growth, Economic Development, Trade of Oil, and Spending on Military. The hypotheses were developed to reveal the most important constructs as regards to the impact of each parameter of oil and natural gas sector in Middle East region.

Oil production, oil price, oil export, oil reserves, and spending on military are used as control variables in this study because of their potential relationship and its effects on hypothesis. The relationship is shown in figure 1.
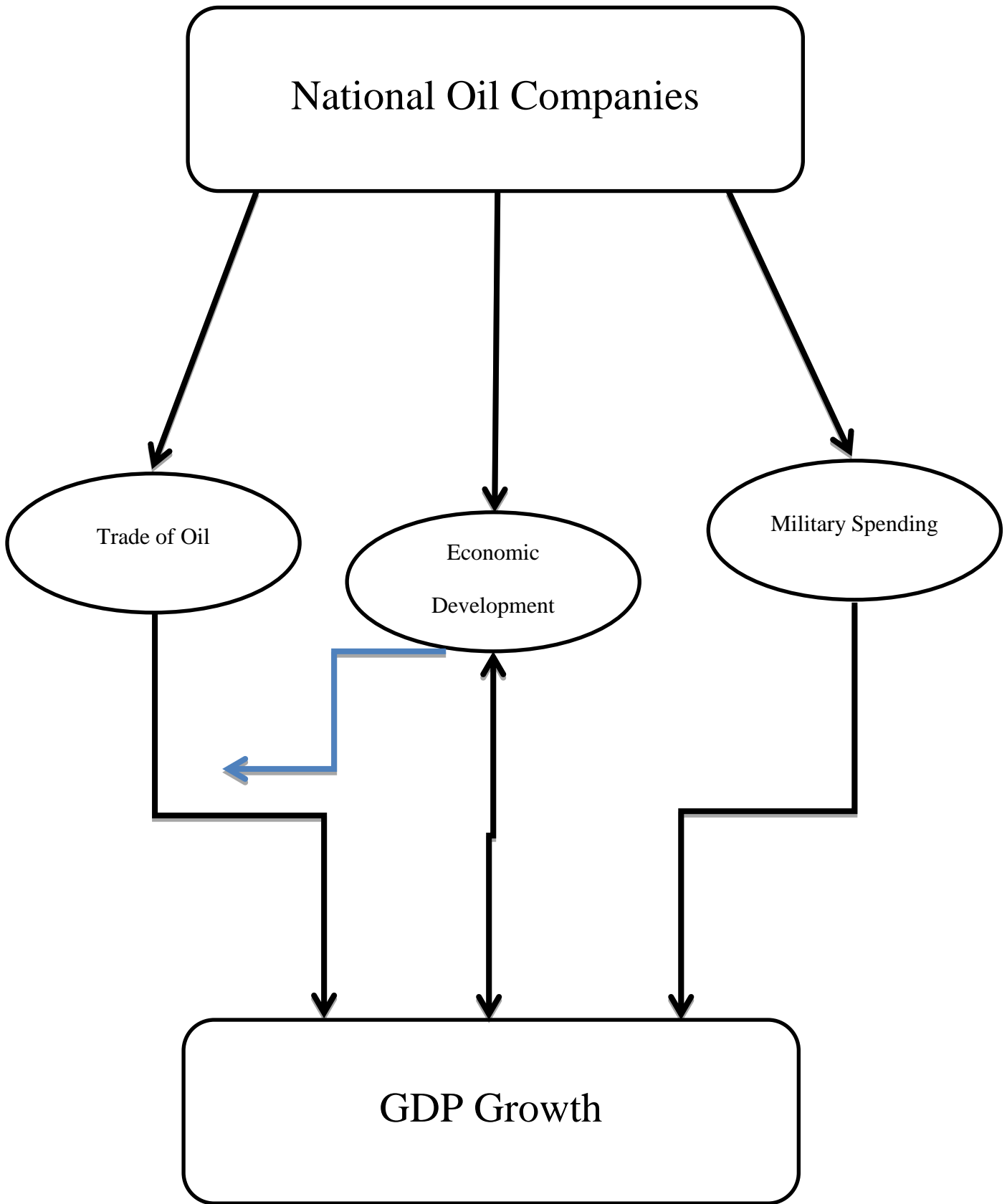
Figure 1: The Concept Model

4.2 Hypotheses

4.2.1 National Oil Companies and GDP growth

In the recent decades the relationship use of different types of oil companies and GDP growth has received a lot of attention in the Middle East region. In the continues sections we have seven considerable items as GDP growth constructs, thus, oil production, oil price, oil export, oil rents, total export, military spending.

A review of literature shows that rise of NOCs not only increase oil price but also has been for the improvement of their skills, rising of capacity, learning of operate the international environment and manage their resources to work more effectively (Khalid Al-Falih, Saudi Aramco's President 2010). These means that GDP can easily effect by NOCs output and they have direct relation with each other.

In the same vein, NOCs not only channel capital, technological and operational know-how into the country, they also serve as custodians of their nation's wealth. Ideally, they help insulate the socioeconomic development strategy from pulls and pressures, and they guard its integrity as the country moves through economic cycles (José de Sá 2004).

Therefore, based on José de Sá, we proposed that:

H_10: Economic growth is depending on Oil rents, Military, and Export of oil which are output of NOCs.

4.2.2 National Oil Companies and Military

The output of NOCs could bring different benefits for its domestic country that cause rise in economic growth and trade of oil. One of the major effects of NOCs' output is increasing the amount of oil export.

The export of oil has major share in economic growth and providing the defense expenditure in oil riches countries. The Ebrahim Nabiuny and his partners in believing that oil trade, which is increasing by NOCs' production, can provide part of country's foreign exchange needs and a major part of government spending which brings the money for use it more in their defense section and try to bring the political stability (Ebrahim Nabiuny, 2012).

So based on Ebrahim Nabiuny article, we proposed that:

H_20: **Military spending is depending on Economic growth, Oil rents and Export of oil which are output of NOCs.**

Chapter 5

METHODOLOGY AND ANALYSING DATA

5.1 Introduction

In previous chapters we demonstrated the different impact of economic development, trade of oil and also military spending that can cause by NOCs in terms of Middle East oil-rich countries. Moreover, in chapter 2 how each parameter can affect by NOCs and how can affect the GDP growth in these regions explained.

In literature review previous researchers define how countries have always tried to improve economic conditions, and want to prepare their trade and defense forces. Also in that chapter we mention that how these parameters are crucial for their country.

However, development in technology and population growth changed economic structure, fluctuate in trade and raise the security problem.

Collectively, a higher percentage of natural resources has been changed the destination of one country not only in economic and trade but also political and social section. Although the new development has some disadvantages, but domestic governments and economists are try to cover up the disadvantage in the countries by controlling the using of natural resources in right way.

As a result, based on theoretical studies, the dimension and the scale of natural resources in the countries, which fulfills residents' need, is a so importance. In addition, the 'accessibility' resources affect the domestics' level of life and also impact on GDP growth of one country. The aim of this paper is to illustrate that how NOCs impact can be important for countries and their domestic population; also try to notice how each parameters can effect on each other in terms of GDP growth.

In the current chapter, the study seeks to examine the affection theory to acquire a theoretical framework. Then, it surveys the effect of NOCs on trade and economic growth in different scale in a Middle East region to achieve a standard model to design the correlation of them.

Below, the economic and trade theory is surveyed which is introduced by Sachs and Warner (1999) and Lederman and Maloney (2002), followed by qualitative aspects of economic growth and trade.

5.2 Methodology

This chapter will demonstrated the effect of national oil companies output on GDP growth and also on trade of oil. The analysis is based on the conditional convergence hypothesis and a Barro-style (1991) cross-country regression controlling for GDP growth and military spending. Moreover, for analysis export of oil, export of fuel as annual growth will used. Thus, following Sachs and Warner (1999) and Lederman and Maloney (2002), our growth equation has the following form:

GDPG = a + b.F + c. OR +d. ME   *Expression1*

While:

GDPG= GDP Growth

a= coefficient

F= Fuel Export

OR=Oil Rent

ME= Military Expenditure

5.3 Variables

In this study, annual time series data will used for each period from 1980 to 2012, for sixth Middle East countries which have oil. Data collected from the different sources but which are the most important source for world's secondary data. First source is World Bank (WB) which I take the Oil rent, GDP growth, Fuel export and also Total export. The data for oil production of OPEC countries (Iran, Kuwait, and Saudi Arabia) collected from annual OPEC bulletin and for the rest find them from indexmundi web page. Furthered, the oil price is based on annual reports of oil on BP Company. The data comprise GDP growth (annual %), Fuel exports (% of merchandise exports), Oil rents (% of GDP), Exports of goods and services (% of GDP), Crude oil prices (U.S. Currency) and Oil production. All digits that used in this study will be in real terms; in addition, they will be expressed in the logarithmic form.

The missing data in some years in each country for avoiding Error get (1). But for Iran the situation is different from others. The war years, revolution and oil shocks have respectively been applied in the model with the titles DUMW, DUME and DUMS. The virtual variable of war (DUMW), for measuring the impact of the imposed war on the GDP growth has been shown. It gets number (1) for years of imposed war (1980-88) and (0) for the rest of the year of the time period. For the virtual variable of revolution, with regard to change of governmental system of the Iran from the kingdom to Islamic Republic, there are major changes in economic structure, the type of policy making and planning. Some years are considered along with the kingdom and it is given a value of (1) and for the rest of years the value of (0) is observed. The value (1) is considered for the years 1985 and 1991 as the virtual dependent of oil shocks (DUMS).

In this paper the model that will be used is the model of Vector Autoregressive Models (VAR), in other words, the econometric technique of the applied time series in order for analyzing the integration amongst the dependent variables. For this purpose, first the model evaluated the static of major dependent variables (GDPG, MILITARY, FULEXP, and OILRENTS) and using the VAR Model, we have examined the integration amongst them. Vector auto-regressive models can be written as following:

$GDPG = C + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + U$ *Expression 2*

In which:

GDPG= GDP Growth

C= Coefficient

β_1= Fuel Export

β_2= Military Spending

β_3= Oil Rents

$MILITARY= C+ \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + U$ ***Expression 3***

In which:

MILITARY= Military Spending

C= Coefficient

β_1= GDP Growth

β_2= Fuel Export

β_3= Oil Rents

5.4 Data

Table 1: Real DATA for Bahrain

military spending	GDP growth	Oil rents	Fuel export	Year
1	1	76.60084468	0.290528101	1980
1	-5.316696284	69.04652194	0.213286222	1981
1	-7.556217507	43.77741123	0.129751979	1982
1	6.376377312	33.71709975	0.057021754	1983
1	5.003644224	36.27883482	0.175614336	1984
1	-4.758267151	32.78377451	0.072613676	1985
1	1.18299553	23.32914893	0.034291311	1986
1	10.39900691	29.9740461	0.00424573	1987
5.028374514	6.999993825	21.08170078	0.003700127	1988
5.093962853	0.364005338	25.67378956	0.004304551	1989
5.105633803	4.43799733	31.77771954	0.004427745	1990
5.139137042	11.22999972	23.7914077	0.032088902	1991
5.295566502	6.689996479	22.25212881	0.025898214	1992
4.827903726	12.87000742	17.68194366	0.00933351	1993
4.600171828	0.250001	14.94841095	55.54908803	1994
4.683095526	3.929992241	15.74345671	53.12921771	1995
4.750904614	4.110005383	18.7023136	0.017637078	1996
4.56582732	3.09299925	17.00401537	1	1997
4.77398815	4.790002365	10.45840774	1	1998
4.940751345	4.3000008	13.74582589	1	1999
4.037505293	5.29999345	20.59789362	0.03992076	2000
4.226485979	4.6	16.63961756	66.93353732	2001
4.698364969	5.26	16.0661095	69.36640397	2002
4.774897681	7.2	16.99113827	72.5181646	2003
4.260859273	5.6	19.936025	75.54461779	2004
3.615957636	7.8	23.98943832	78.15928027	2005
3.405297502	6.7	24.22003651	80.5901159	2006
3.196222123	8.34	23.01609225	80.83024976	2007
3.011389854	6.3	26.53038008	69.06259078	2008
3.951099975	3.1	17.43049059	68.60204297	2009
3.384565454	4.5	19.20932707	74.3474764	2010
1	1	1	1.050182112	2011
1	1	1	1	2012
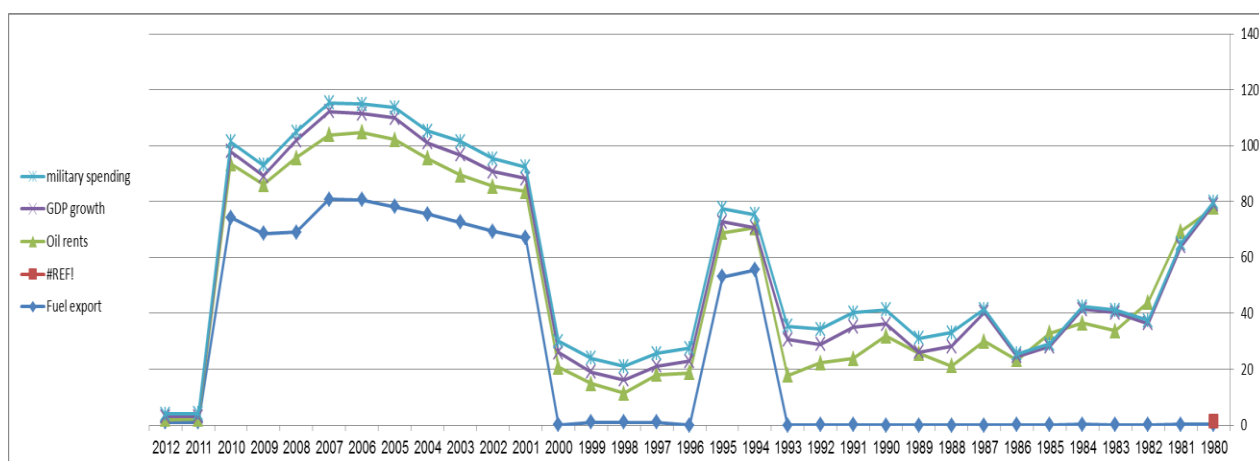
Graph 1: Real DATA for Kuwait

Table 2: Real DATA for Iran

Military spending	GDP growth	Oil rents	Fuel export	Year
1	-13.22964483	21.21796455	1	1980
1	-5.198628647	18.19459926	1	1981
1	12.95679347	21.66108857	1	1982
1	12.60821013	16.29131145	1	1983
1	-1.57372012	13.34028212	1	1984
1	2.065132171	11.37933249	1	1985
1	-9.170797525	3.771357135	1	1986
1	-1.403694332	10.09941392	1	1987
1.951789923	-6.299226828	9.449220429	1	1988
2.410274784	6.177959519	14.00981516	1	1989
2.050125488	13.68776536	20.54884998	1	1990
1.655580071	12.59435696	1	1	1991
1.38891239	4.251070755	1	1	1992
1.51628681	-1.575789783	33.08492491	1	1993
2.361287203	-0.350553105	27.47052153	1	1994
1.787789046	2.652685824	22.584268	1	1995
1.917471076	7.100735147	22.41596594	1	1996
2.127595639	3.384806778	21.67360112	85.74923838	1997
2.352840991	2.740585246	13.57696357	81.08227199	1998
2.974176928	1.933822216	18.56274395	86.03514013	1999
3.682686251	5.143162536	34.41498931	88.74210522	2000
3.875332137	3.669671948	23.89305793	84.87747416	2001
2.314574478	7.515598158	23.7424541	70.09064692	2002
2.740885376	7.114681217	26.46864473	79.13319012	2003
3.052490982	5.084051514	29.74163604	78.54658675	2004
3.507930929	4.623405402	38.32612745	82.61105449	2005
3.681952854	5.893936099	40.28698604	82.79351043	2006
2.730675815	7.824788319	34.99250944	1	2007
1.919834009	2.3	39.88777448	1	2008
1	1.8	23.45801663	1	2009
1	1	1	70.77493648	2010
1	1	1	70.4786304	2011
1	1	1	1	2012
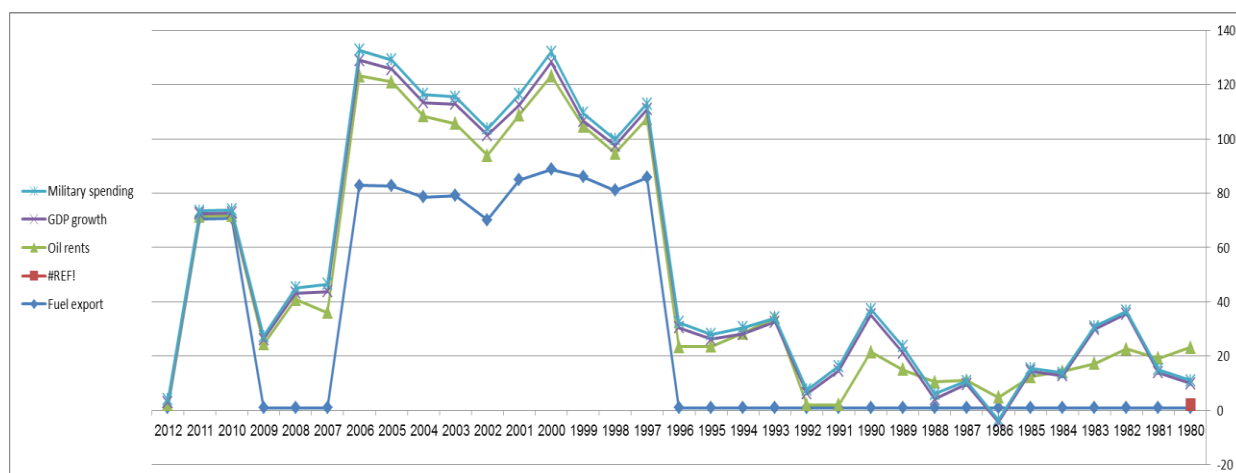
Graph 2: Real DATA for Iran

52

Table 3: Real DATA for Kuwait

Military spending	GDP growth	Oil rents	Fuel export	Year
1	-20.61552527	76.34917645	88.85138917	1980
1	-19.02970301	56.02466277	83.60010004	1981
1	-12.31483705	42.78507874	75.64603103	1982
1	10.41418854	50.66749811	79.08972145	1983
1	5.239900319	52.06858762	82.77825927	1984
1	-4.257718449	44.90692913	1	1985
1	8.565233279	27.17300373	0.278945999	1986
1	8.142556614	31.70327504	0.235079667	1987
8.244994294	-10.04966697	31.6473273	0.192735047	1988
8.539948492	25.8951771	40.29678188	3.048986033	1989
48.70741634	1	36.0495733	92.62101371	1990
117.3876949	1	10.3171684	80.35513264	1991
31.78580571	1	32.71488692	94.54035055	1992
12.44761601	33.99046785	42.16666416	95.06815411	1993
13.26558312	8.436165667	40.6881291	93.87055706	1994
13.58146414	4.858291021	40.63077668	94.67626959	1995
10.29768926	0.605126941	42.74214976	95.22441232	1996
8.092108836	2.473325085	41.21089657	84.82590999	1997
8.802215659	3.662055118	30.64207962	79.26136238	1998
7.590712178	-1.789009233	34.44399562	78.8025526	1999
7.147796024	4.694582091	49.4199503	94.30548807	2000
7.700214933	0.729026469	43.73109734	93.23043313	2001
7.402933563	3	36.64951071	92.49862041	2002
6.539566833	17.32	41.56466404	93.45656093	2003
5.805788662	10.2	48.80201075	94.59859657	2004
4.344508965	10.6	58.07896329	1	2005
3.559552087	5.2	57.38189384	96.47016377	2006
3.61867346	4.373	54.540381	96.30702113	2007
3.031297325	4.97	60.67307899	96.49106338	2008
4.055384212	-5.15	42.6018649	93.20822277	2009
3.796935511	3.41	48.32441934	1	2010
3.194763624	8.19	49.86871202	1	2011
1	1	1	1	2012
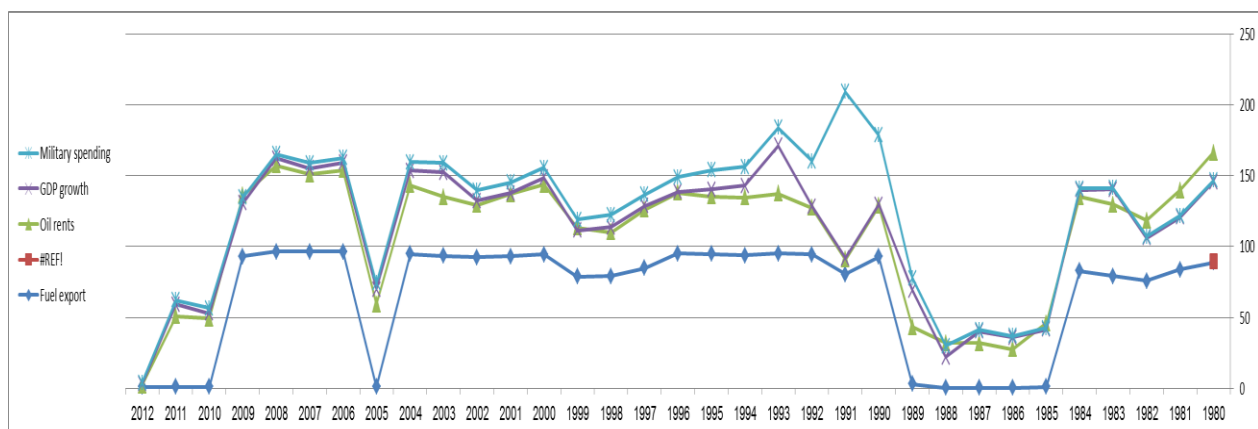
Graph3: Real DATA for Kuwait

53

Table 1: Real DATA for Oman

Military spending	GDP growth	Oil rents	Fuel export	Year
1	6.035442842	61.46858307	96.16208575	1980
1	17.04707884	54.72135282	94.12768728	1981
1	11.56983812	47.63659033	92.32951168	1982
1	16.66666979	46.27675461	91.78732637	1983
1	16.71159464	42.66827812	91.72287975	1984
1	14.00719671	41.32703354	93.00384708	1985
1	2.002159484	27.73513755	89.99496125	1986
1	-3.440783503	38.66944659	91.65383524	1987
15.15192833	5.964027268	28.61123605	87.96843832	1988
13.39027912	11.75686153	34.23783438	89.15546234	1989
14.02429213	-0.13042513	40.77991296	91.88149218	1990
12.46978293	6.074078191	35.03458543	87.41818754	1991
11.28415828	8.413883432	32.10546851	83.76778328	1992
12.46537231	6.04296035	29.20971696	78.90815456	1993
10.6447607	3.875774699	27.50376644	76.49527917	1994
9.27846839	4.996819408	29.9887093	78.67524388	1995
8.468077873	3.045939792	34.95973978	80.49875134	1996
11.00093575	6.033512418	31.61701251	76.70021009	1997
14.31103749	2.642338019	19.87578087	68.09065575	1998
11.38191745	-0.124806736	27.50447982	76.98910372	1999
10.59439031	5.401372725	42.31300985	82.53758575	2000
11.48921154	7.481596829	34.12441	80.5299059	2001
9.812648777	2.568324004	32.49472044	77.26509991	2002
8.737112377	0.3	33.14819309	76.83369817	2003
8.352835782	3.4	37.88780063	91.10784222	2004
8.046105318	3.994	44.03679338	91.84260764	2005
8.294442643	5.5	42.68125867	91.39512817	2006
9.214236794	6.8	39.69651185	89.07468539	2007
8.024889385	12.8	40.4373586	86.38909559	2008
10.95653405	1.1	31.60433861	75.02563832	2009
10.03667619	4	36.12800228	77.84384093	2010
8.413473318	5.5	40.21141584	74.37570643	2011
1	1	1	1	2012
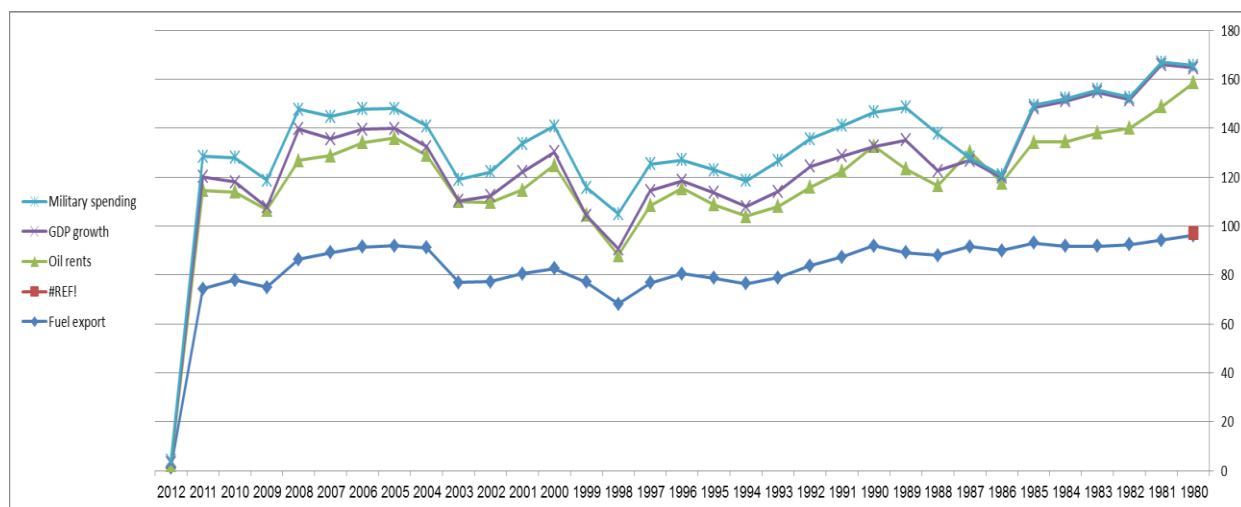
Graph 4: Real DATA for Oman

Table 5: Real DATA for Saudi Arabia

Military spending	GDP growth	Oil rents	Fuel export	Year
1	6.519218691	80.23745772	99.18750179	1980
1	4.690926872	66.8540585	99.27039752	1981
1	-11.09816427	48.05456366	98.78636972	1982
1	-8.216560944	39.87167189	1	1983
1	-3.088325393	37.84138159	1	1984
1	-4.32416815	29.99283808	96.37613797	1985
1	5.090299607	25.63677652	1	1986
1	-3.983787696	29.04809333	1	1987
7.309980446	8.224008073	26.70407502	85.14745447	1988
7.420101988	0.062467923	30.60894769	86.87003101	1989
6.410065293	8.328505492	41.85172137	91.67644971	1990
9.693032571	9.103786359	39.67176658	94.09824871	1991
8.3685386	4.62855192	38.05133398	89.18482372	1992
6.743120929	0.026066163	33.88102062	92.86820797	1993
7.231758088	0.665557266	30.32123991	91.47634907	1994
6.953018959	0.200913397	31.2388666	88.45875168	1995
6.035981397	3.383819661	34.38191059	89.54970384	1996
5.888120143	2.592662071	30.22365069	1	1997
5.806862984	2.834565199	22.32512558	85.31877427	1998
5.811313015	-0.74851056	26.29694239	89.43532383	1999
5.340132886	4.864573291	40.3109032	92.05857411	2000
5.258312121	0.547438794	33.74050231	87.3759696	2001
5.210026239	0.128051482	30.33254006	89.40471779	2002
6.246724194	7.65907954	37.1598202	88.30033086	2003
5.541128275	5.26691709	45.03866599	89.63492712	2004
5.025098942	5.553678497	53.8634487	90.93566386	2005
4.393026291	3.157775979	56.67111882	91.01429522	2006
4.098470334	2.017173058	55.47152024	90.105985	2007
3.550016584	4.228693235	64.25200759	91.19152111	2008
4.009287256	0.096515746	43.6099275	87.57548408	2009
3.945538304	4.641909814	47.21876306	87.45297917	2010
1	6.774455063	55.52849724	88.56521887	2011
1	1	1	1	2012
1	1	1	1	2013

Table 6: Real DATA for Syria

Military spending	GDP growth	Oil rents	Fuel export	Year
1	11.98320185	18.12339278	78.85560826	1980
1	9.507711695	14.83581103	79.012205	1981
1	2.122151361	11.9630156	74.7037732	1982
1	1.42917395	10.24298186	68.84713082	1983
1	-4.07174187	9.933805799	63.06101931	1984
1	6.115070041	9.632645676	74.05294336	1985
1	-4.945702973	5.489543431	42.03140905	1986
1	1.907546505	11.84287245	51.81300014	1987
18.26639789	13.26628909	11.10878201	1	1988
16.67776668	-8.958214015	18.74739665	39.16009682	1989
16.5149458	7.64077232	24.05341942	45.17033314	1990
14.74500091	7.901270704	22.26081073	1	1991
16.24929509	13.47033376	22.00590026	69.58602642	1992
15.36347738	5.178987103	19.32323222	1	1993
15.68256396	7.652937118	26.52643322	1	1994
14.62192156	5.75001528	27.2145107	62.52506318	1995
12.5461757	4.4	26.34098965	68.22721672	1996
12.48049921	1.8	22.80037121	65.1320433	1997
12.48193727	6.337264023	12.91135892	57.05449329	1998
11.37313281	-3.553656913	18.05835357	68.38121491	1999
10.59011413	2.742857397	24.88958838	76.36141419	2000
12.16348346	5.20094281	19.9079814	77.43665136	2001
12.42703334	5.9	21.43566293	72.16648189	2002
12.19364964	0.6	24.29187232	71.34700875	2003
12.05860651	6.9	21.09322745	67.62874286	2004
11.81519818	6.2	24.86281243	67.6564414	2005
10.95328952	5	24.37683815	40.35426947	2006
10.32214015	5.7	21.16264058	41.10716939	2007
7.62195122	4.5	22.55843536	38.57580356	2008
9.578246393	6	12.56986121	37.8245128	2009
8.461088882	3.2	16.25924729	49.88707374	2010
5.97826087	1	1	1	2011
1	1	1	1	2012
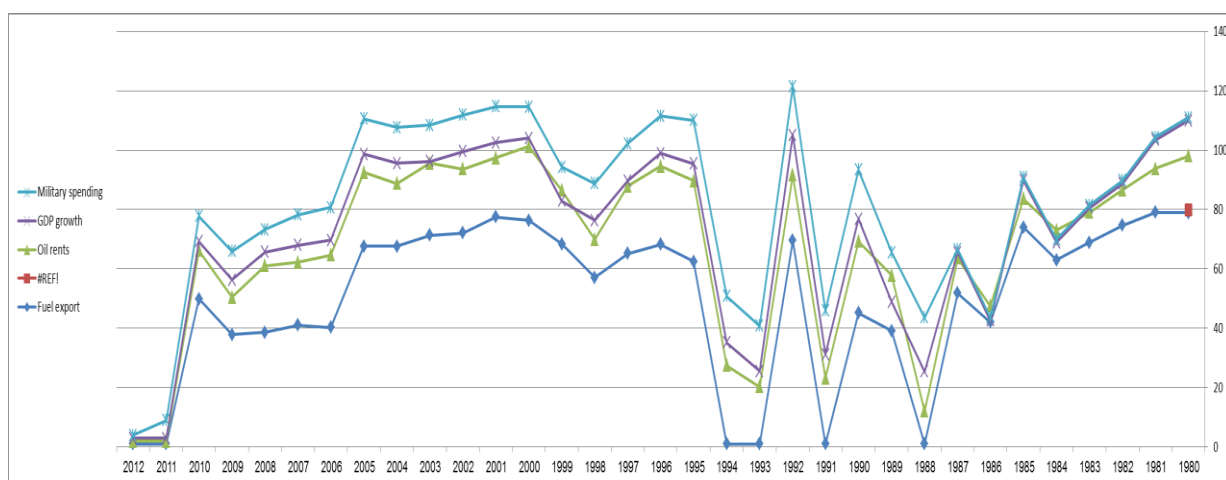
Graph 6: Real DATA for Syria

CHAPTER 6

RESULT AND DATA ANALYSES

The purpose of this chapter is present the results of the analyses data which were collected in the study of NOCs effect on trade, GDP growth, and military expenditure in the case of Middle East countries and to describe the level of effect of NOCs on these countries socially and politically if it exists.

6.1 Data Analyses

The data are analyzed by using multinational regression and VAR model. A variety of statistical methods were used to gain a better understanding of the data. Frequently the distribution of formula provides a general view of knowing about the impact of NOCs.

For the reliable grouping of the five variables and easier drawing of conclusions, the multiple regressions were used. Multiple regressions are show the relation between one dependent and two or more independent variables. The expression number 2 and number 3 show the linear functions of multiple regressions.

In table 7 and table 8 t-statistics was conducted to make comparative analysis between the GDP and military spending with oil rent, fuel export and the coefficient. Also the probability test in these tables shows how the model is explained. T-

statistics explain if the model that chooses result less than 10% it means that completely explained the model.

That formula will be used for each country based on their real data that collected from World Bank annual reports.

6.1.1 GDP Growth

Table7 demonstrates the R square, probability test and t-statistics of the study variables. The finding regarding to correlation of the study constructs were used to assess discriminate validity.

As shown in table 7 the finding regarding to the probability test among the countries, except Oman, significant level were more than 10%. This means that only Oman is significant in the model that chosen.

The result of negative fuel export in R square test, except Saudi Arabia, explained that each change in fuel export of these countries negatively affect their GDP growth.

Table 7: DATA Analyses based on GDP Growth

Dependent Variable   **GDP Growth**

Bahrain	Coefficient	Prob.	t-Statistic
C	0.920886	0.7017	0.386844
FUELE	-0.215814	0.7239	-0.356681
MILITARY	0.083079	0.5742	0.568254
OILRENT	-0.032432	0.4554	-0.756559
Iran			
C	-1.155244	0.6605	-0.443842
FUELE	-0.016934	0.6606	-0.443679
MILITARY	2.612508	0.1991	1.314031
OILRENT	-0.023658	0.8466	-0.195134
Kuwait			
C	-10.82988	0.4852	-0.724859
FUELE	-0.062512	0.7248	-0.362083
MILITARY	2.880458	0.3415	0.998602
OILRENT	0.481131	0.2953	1.104323
Oman			
C	-6.205502	0.0265***	-2.337804
FUELE	-0.014376	0.6172	-0.505246
MILITARY	1.003563	0.0085***	2.823042
OILRENT	0.125545	0.0518**	2.028348
Saudi Arabia			
C	0.136630	0.9758	0.030654
FUELE	0.020292	0.8271	0.220370
MILITARY	-0.246405	0.2359	-1.210291
OILRENT	0.172387	0.2688	1.127404
Syria			
C	0.642633	0.7795	0.282560
FUELE	-0.013157	0.6891	-0.404129
MILITARY	0.126868	0.5358	0.626567
OILRENT	0.133517	0.4115	0.833366

*, **, *** 10%, 5%, 1% significant

6.1.2 Military Spending

The table 8 will explained the same independent variable with different dependent variable that will be military spending. In this table data are analyses to obtain the result of impact of each oil related variable on military spending.

The regressions tests for Syria and Kuwait all variable are statistically significant; meaning that military expenditure depends on economic growth and oil and fuel production. But in Kuwait the economic growth is not significant. In Bahrain and Saudi Arabia there is significant level in oil rent. Iran has significant level in economic growth. For more explanation, if in Iran growth increase by 1% the military spending will rise by 9%. Another example is if in Kuwait oil rent rise by 1% the military spending will increase by 3%.

Table 8: DATA Analyses Based on Military Spending

Dependent Variable   Military

Bahrain	Coefficient	Prob.	t-Statistic
C	0.219550	0.9164	0.105845
GROWTH	0.105280	0.5358	0.626567
FUELE	0.039089	0.1858	1.355331
OILRENT	0.503404	0.0001	4.402919
Iran			
C	3.585185	0.0000***	11.88835
GROWTH	0.090641	0.0383**	2.170774
FUELE	-0.020239	0.7239	-0.356681
OILRENT	-0.000227	0.9865	-0.017090
Kuwait			
C	0.775683	0.0003***	4.122120
GROWTH	0.021510	0.1991	1.314031
FUELE	0.012526	0.0000***	4.852045
OILRENT	0.037543	0.0001***	4.406766
Oman			
C	4.729874	0.0000***	8.226006
GROWTH	0.031480	0.3415	0.998602
FUELE	-0.048490	0.3141	-1.060056
OILRENT	-0.014714	0.4217	-0.837899
Saudi Arabia			
C	5.902728	0.1324	1.548440
GROWTH	-0.195134	0.2359	-1.210291
FUELE	0.189243	0.0162**	2.553903
OILRENT	-0.340525	0.0101**	-2.750429
Syria			
C	4.749614	0.0001***	4.715642

GROWTH	0.214806	0.0085***	2.823042
FUELE	0.041347	0.0006***	3.841437
OILRENT	-0.097351	0.0005***	-3.943106

*, **, *** 10%, 5%, 1% respect significant

1. Bahrain

   MILITARY= $0.219550 + 105280X_1 + 0.039089X_2 + 0.503404X_3 + U$

2. Iran

   MILITARY= $3585185 + 0.090641X_1 - 0.020239X_2 - 0.000227X_3 + U$

3. Kuwait

   MILITARY= $0.775683 + 0.02151510X_1 + 0.012526 X_2 + 0.037543X_3 + U$

4. Oman

   MILITARY= $4.729874 + 0.031480X_1 - 0.048490X_2 - 0.014714X_3 + U$

5. Saudi Arabia

   MILITARY= $5.902728 - 0.195134X_1 + 0.189243X_2 - 0.340525X_3 + U$

6. Syria

   MILITARY= $4.749614 + 0.214806X_1 + 0.041347X_2 - 0.097351X_3 + U$

1. Bahrain

   GDPG= 0.920886- 0.215814X1+ 0.083079 X2 − 0.032432 X3+ U

2. Iran

   GDPG= -1.155244- 0.016934X1+ 2.612508 X2 + 0.41131 X3+ U

3. Kuwait

   GDPG= -10.82988- 0.062512X1+ 2.880458 X2 + 0.481131 X3+ U

4. Oman

   GDPG= -6.205502- 0.014376X1+ 1.003563 X2 + 0.125545 X3+ U

5. Saudi Arabia

   GDPG= 0.136630+ 0.020292X1- 0.246405 X2+ 0.172387 X3+ U

6. Syria

   GDPG= 0.642633- 0.013157X1+ 0.126868 X2 − 0.133517 X3+ U

Table 9: Oman DATA Analyses based on GDP Growth

Oman

Dependent Variable: GROWTH

Method: Least Squares

Date: 07/01/13   Time: 15:30

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.205502	2.654415	-2.337804	0.0265
FUELE	-0.014376	0.028453	-0.505246	0.6172
MILITARY	1.003563	0.355490	2.823042	0.0085
OILRENT	0.125545	0.061895	2.028348	0.0518

R-squared	0.301820	Mean dependent var	2.146306
R-squared	0.229595	S.D. dependent var	4.621075
S.E. of regression	4.056044	Akaike info criterion	5.751506
Sum squared reside	477.0934	Schwarz criterion	5.932901
Log likelihood	-90.89985	Hannan-Quinn criter.	5.812540
F-statistic	4.178857	Durbin-Watson stat	1.570145
Prob(F-statistic)	0.014157		

Table 10: Saudi Arabia DATA Analyses based on GDP Growth

Saudi Arabia

Dependent Variable: GROWTH

Method: Least Squares

Date: 07/01/13   Time: 15:38

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.136630	4.457174	0.030654	0.9758
FUELE	0.020292	0.092080	0.220370	0.8271
MILITARY	-0.246405	0.203591	-1.210291	0.2359
OILR	0.172387	0.152906	1.127404	0.2688

R-squared	0.264850	Mean dependent var	6.031377
Adjusted R-squared	0.188800	S.D. dependent var	5.148904
S.E. of regression	4.637446	Akaike info criterion	6.019417
Sum squared reside	623.6712	Schwarz criterion	6.200812
Log likelihood	-95.32038	Hannan-Quinn criter.	6.080451
F-statistic	3.482570	Durbin-Watson stat	1.689394
Prob(F-statistic)	0.028369		

Table 11: Kuwait DATA Analyses based on GDP Growth

Kuwait

Dependent Variable: GROWTH

Method: Least Squares

Date: 07/01/13   Time: 15:43

Sample (adjusted): 1980 1993

Included observations: 14 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-10.82988	14.94066	-0.724859	0.4852
FX	-0.062512	0.172646	-0.362083	0.7248
MILITARY	2.880458	2.884490	0.998602	0.3415
OIRENTS	0.481131	0.435679	1.104323	0.2953

R-squared	0.172108	Mean dependent var	2.075121
Adjusted R-squared	-0.076259	S.D. dependent var	19.15456
S.E. of regression	19.87150	Akaike info criterion	9.051407
Sum squared reside	3948.766	Schwarz criterion	9.233995
Log likelihood	-59.35985	Hannan-Quinn criter.	9.034505
F-statistic	0.692957	Durbin-Watson stat	3.053157
Prob(F-statistic)	0.576998		

Table 12: Iran DATA Analyses based on GDP Growth

Iran

Dependent Variable: GDPG

Method: Least Squares

Date: 07/01/13   Time: 15:50

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.155244	2.602825	-0.443842	0.6605
FUELE	-0.016934	0.038166	-0.443679	0.6606
MILITARY	2.612508	1.988163	1.314031	0.1991
OILR	-0.023658	0.121239	-0.195134	0.8466

R-squared	0.097773	Mean dependent var	2.949126
Adjusted R-squared	0.004439	S.D. dependent var	6.023653
S.E. of regression	6.010269	Akaike info criterion	6.538029
Sum squared reside	1047.577	Schwarz criterion	6.719424
Log likelihood	-103.8775	Hannan-Quinn criter.	6.599062
F-statistic	1.047559	Durbin-Watson stat	1.247141
Prob(F-statistic)	0.386405		

Table 13: Bahrain DATA Analyses based on GDP Growth

Bahrain

Dependent Variable: GR

Method: Least Squares

Date: 07/01/13   Time: 15:59

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.920886	2.380512	0.386844	0.7017
MILITARY	-0.215814	0.605060	-0.356681	0.7239
OILRENT	0.083079	0.146201	0.568254	0.5742
FUELEX	-0.032432	0.042867	-0.756559	0.4554

R-squared	0.027926	Mean dependent var	3.03E-11
Adjusted R-squared	-0.072634	S.D. dependent var	5.172531
S.E. of regression	5.357089	Akaike info criterion	6.307931
Sum squared reside	832.2537	Schwarz criterion	6.489326
Log likelihood	-100.0809	Hannan-Quinn criter.	6.368965
F-statistic	0.277702	Durbin-Watson stat	2.472511
Prob(F-statistic)	0.841008		

Table 14: Syria DATA Analyses based on GDP Growth

Syria

Dependent Variable: GROWTH

Method: Least Squares

Date: 07/01/13   Time: 16:07

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.642633	2.274323	0.282560	0.7795
FUELEX	-0.013157	0.032556	-0.404129	0.6891
MILITARY	0.126868	0.202481	0.626567	0.5358
OILRENT	0.133517	0.160214	0.833366	0.4115

R-squared	0.099911	Mean dependent var	4.208400
Adjusted R-squared	0.006798	S.D. dependent var	4.912613
S.E. of regression	4.895886	Akaike info criterion	6.127880
Sum squared reside	695.1213	Schwarz criterion	6.309275
Log likelihood	-97.11002	Hannan-Quinn criter.	6.188914
F-statistic	1.073012	Durbin-Watson stat	2.257674
Prob(F-statistic)	0.375865		

Table 15: Oman DATA Analyses based on MILITARY

Oman

Dependent Variable: MILITARY

Method: Least Squares

Date: 07/01/13   Time: 16:15

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.749614	1.007204	4.715642	0.0001
GROWTH	0.214806	0.076090	2.823042	0.0085
FUELE	0.041347	0.010764	3.841437	0.0006
OILRENT	-0.097351	0.024689	-3.943106	0.0005

R-squared	0.532426	Mean dependent var	4.433020
Adjusted R-squared	0.484056	S.D. dependent var	2.612473
S.E. of regression	1.876520	Akaike info criterion	4.209927
Sum squared reside	102.1185	Schwarz criterion	4.391322
Log likelihood	-65.46380	Hannan-Quinn criter.	4.270961
F-statistic	11.00741	Durbin-Watson stat	0.963430
Prob(F-statistic)	0.000054		

Table 16: Saudi Arabia DATA Analyses based on MILITARY

Saudi Arabia

Dependent Variable: MILITARY

Method: Least Squares

Date: 07/01/13   Time: 16:19

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.902728	3.812048	1.548440	0.1324
GROWTH	-0.195134	0.161229	-1.210291	0.2359
FUELE	0.189243	0.074100	2.553903	0.0162
OILR	-0.340525	0.123808	-2.750429	0.0101

R-squared	0.309022	Mean dependent var	8.025563
Adjusted R-squared	0.237542	S.D. dependent var	4.726201
S.E. of regression	4.126865	Akaike info criterion	5.786126
Sum squared reside	493.8994	Schwarz criterion	5.967521
Log likelihood	-91.47107	Hannan-Quinn criter.	5.847159
F-statistic	4.323170	Durbin-Watson stat	0.716719
Prob(F-statistic)	0.012300		

Table 17: Kuwait DATA Analyses based on MILITARY

Kuwait

Dependent Variable: MILITARY

Method: Least Squares

Date: 07/01/13   Time: 16:21

Sample (adjusted): 1980 1993

Included observations: 14 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.729874	0.574990	8.226006	0.0000
GROWTH	0.031480	0.031525	0.998602	0.3415
OIRENTS	-0.048490	0.045742	-1.060056	0.3141
FX	-0.014714	0.017561	-0.837899	0.4217

R-squared	0.245415	Mean dependent var	4.913438
Adjusted R-squared	0.019040	S.D. dependent var	2.097465
S.E. of regression	2.077402	Akaike info criterion	4.535069
Sum squared reside	43.15597	Schwarz criterion	4.717657
Log likelihood	-27.74548	Hannan-Quinn criter.	4.518167
F-statistic	1.084107	Durbin-Watson stat	0.737527
Prob(F-statistic)	0.399743		

Table 18: Iran DATA Analyses based on MILITARY

Iran

Dependent Variable: MILITARY

Method: Least Squares

Date: 07/01/13   Time: 16:11

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.775683	0.188176	4.122120	0.0003
GDPG	0.021510	0.016369	1.314031	0.1991
FUELE	0.012526	0.002582	4.852045	0.0000
OILR	0.037543	0.008519	4.406766	0.0001

R-squared	0.689712	Mean dependent var	1.939409
Adjusted R-squared	0.657614	S.D. dependent var	0.932022
S.E. of regression	0.545361	Akaike info criterion	1.738475
Sum squared reside	8.625144	Schwarz criterion	1.919870
Log likelihood	-24.68485	Hannan-Quinn criter.	1.799509
F-statistic	21.48722	Durbin-Watson stat	1.206916
Prob(F-statistic)	0.000000		

Table 19: Bahrain DATA Analyses based on MILITARY

Bahrain

Dependent Variable: MILITARY

Method: Least Squares

Date: 07/01/13   Time: 16:22

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.585185	0.301571	11.88835	0.0000
OILRENT	0.090641	0.041755	2.170774	0.0383
GR	-0.020239	0.056742	-0.356681	0.7239
FUELEX	-0.000227	0.013256	-0.017090	0.9865

R-squared	0.143730	Mean dependent var	3.374787
Adjusted R-squared	0.055150	S.D. dependent var	1.687717
S.E. of regression	1.640518	Akaike info criterion	3.941114
Sum squared reside	78.04767	Schwarz criterion	4.122508
Log likelihood	-61.02837	Hannan-Quinn criter.	4.002147
F-statistic	1.622606	Durbin-Watson stat	0.530526
Prob(F-statistic)	0.205663		

Table 20: Syria DATA Analyses based on MILITARY

Syria

Dependent Variable: MILITARY

Method: Least Squares

Date: 07/01/13   Time: 16:08

Sample: 1980 2012

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.219550	2.074254	0.105845	0.9164
GROWTH	0.105280	0.168026	0.626567	0.5358
FUELEX	0.039089	0.028841	1.355331	0.1858
OILRENT	0.503404	0.114334	4.402919	0.0001

R-squared	0.468731	Mean dependent var	9.398975
Adjusted R-squared	0.413772	S.D. dependent var	5.824981
S.E. of regression	4.459929	Akaike info criterion	5.941355
Sum squared reside	576.8379	Schwarz criterion	6.122750
Log likelihood	-94.03236	Hannan-Quinn criter.	6.002389
F-statistic	8.528748	Durbin-Watson stat	0.799172
Prob(F-statistic)	0.000325		

6.2 Result and Hypothesis testing

The conclusion of the hypothesis that mentioned below is going to be explained in this section.

6.2.1 Result of GDP Growth testing

H_10: Economic growth is depending on Oil rents, Military, and Export of oil which are output of NOCs.

As shown in table 7 the finding regarding the probability test among the countries, except Oman, significant level were more than 10%. This means that only Oman is significant in the model that chosen.

The result of negative fuel export in R square test, except Saudi Arabia, explained that each change in fuel export of these countries negatively affect their GDP growth.

6.2.2 Result of Military testing

H_20: Military spending is depending on Economic growth, Oil rents and Export of oil which are output of NOCs.

H_2a: Military spending is depending on Economic growth, Oil rents and Export of oil which are output of NOCs.

The regressions tests are for Syria and Kuwait all variable are statistically significant; meaning that military expenditure depends on economic growth, oil rent, and fuel production. But in Kuwait the economic growth is not significant. In Bahrain and Saudi Arabia there is significant level in oil rent. Iran has significant level in economic growth. For more explanation, if in Iran growth increase by 1% the military spending will rise by 9%. Another example is if in Kuwait oil rent rise by 1% the military spending will increase by 3%.

Chapter 7

SUMMERY AND RECOMMENDATION

7.1 Summary of the Research

As a result, in order to annual natural energy reduction, the oil companies, especially the national types, should manage the refining and exploration of oil; also they should be organized best way to handle the export of oil to take more wealth than loose and spend that benefit for replacing of oil with another energy.

This study focused on the relation of National Oil Companies and economic growth and trade of oil; also its possible social and political impact on Middle East countries. After investigating, using NOCs in Middle East context and examining the economic growth and export concept in different scales, NOCs concept in six countries with different nature resources have been surveyed. Result of data analysis showed that in six cases, economic development and export relation with NOCs were the major issues for countries.

This study prefer to developing a theoretical and mathematical model for showed the impact of NOCs on development and growth of economy and oil export which are results the fluctuation on oil price and production of one country. Furthermore, in same section of this study it showed that the output of national oil companies can easily affected on military spending in one oil rich region.

The model that presented here is new concept of national oil companies to explain more about national oil companies and helped fill the lack of good definition of their impact on GDP among the Middle East regions.

To describe this agenda effectively, this paper seek to establish the definition of GDP growth and military expenditure to encompass empirical model for national oil companies' affection on them.

To illustrate this goal, this dissertation explained several parameters such as oil rent, fuel export, military spending and also oil price. The major concern is, what model should design for these parameters to show the exact effect on GDP growth and military expenditure; also how to understand the impact of national oil companies on the result of model that design. Moreover, how these impact reinform or change the future of one region in case study that chosen.

This research focused on effect of NOCs on oil trade, economic growth, and military expenditure. For this purpose the research scope could be expressed in chronological order below:

1. To identify the National Oil Companies and their advantages in order to Middle-East countries during 33 years.

2. To demonstrate the effect of the oil companies on fuel export, economic growth, military expenditure.

3. To calculate the effect of National Oil Companies output use on different country with different resources.

4. To analyze the sensitivity of GDP growth measures the oil rents, military spending and total fuel export.

5. To analyze the sensitivity of Military Spending measures the oil rents, GDP growth and fuel export.

6. To detected the NOCs affection on political and society stability in sample countries.

7. To study more about the impact of each parameter on each other across the model that chosen.

8. To compute the effect of using the NOCs instead of IOCs on GDP growth and oil export.

9. To understand the best combination of oil price and oil production to obtain economic development and rise international trade.

7.2 Conclusion

To obtain the foresaid objectives, different method and managerial and economical software were applied. Also these will be listed in same chronological below:

1. Over sixty State oil Companies activity, their gas and oil production and their policy was studied.

2. The relation of all NOCs, in different region, and oil trade, economic growth and military expenditure were examined by using the Sachs and Warner (1999) and Lederman and Maloney (2002) formula, also for cross country effect the Barro-style (1991) cross-country regression controlling for GDP growth and Military spending used.

3. The econometric and coefficient test used to calculate the effect of NOCs on each country that chose as case study separately.

4. Sixth country with 33 years duration use to compute the sensitivity of GDP by NOCs production.

5. Sixth country with 33 years duration use to compute the sensitivity of Military by NOCs production.

6. The result showed that in some countries using of NOCs easily cause fluctuation in economic growth and their export of oil.

7. The econometric result and also study of literature showed that the economic growth directly affects the oil export and also it mentions that military expenditure indirectly affected by economic growth.

8. The using of NOCs for domestic country is better than to use the IOCs because it brings more stability for politics and government. Also the wealth of the NOCs is only used for their residents which can help to increase the security of country and developed its economic.

9. The best way is not always work with only NOCs or IOCs sometimes, as result showed, the best combination of them is the best way for developed economic and raise the oil trade.

7.3 Implication

The findings regarding the probability test among the countries, except Oman, significant level were more than 10%. This means that only Oman is significant in the model that chosen.

The result of negative fuel export in R square test, except Saudi Arabia, explained that each change in fuel export of these countries negatively affect their GDP growth.

The regressions tests are for Syria and Kuwait all variable are statistically significant; meaning that military expenditure depends on economic growth, oil rent, and fuel production. But in Kuwait the economic growth is not significant. In Bahrain and Saudi Arabia there is significant level in oil rent. Iran has significant level in economic growth. For more explanation, if in Iran growth increase by 1% the

81

military spending will rise by 9%. Another example is if in Kuwait oil rent rise by 1% the military spending will increase by 3%.

7.7 Limitation

This research had some limitations that include:

1. Different and large sample,

2. High security on data that were related to military expenditure,

3. Using prior knowledge measuring;

4. The lack of useful information about the National Oil Companies role.

7.8 Future research

The following recommendations are offered for practitioners in the field of NOCs and their role:

1. Based on the results of this research, it is recommended that construction constitute approximately 50% of oil research.

2. Particular attention to NOCs should be given by faculty and administrators of programs that do not include any course work in construction.

REFERENCES

Acemoglu, D., S. Johnson and J.A Robinson. 2002. "Reversal of fortune: Geography and institutions in the making of the modern world income distribution". Quarterly Journal of Economics, 117(4): 1231–94.

Acemoglu, D., S. Johnson and J.A. Robinson. 2004. Institutions as the Fundamental Cause of Long-Run Growth. CEPR Discussion Papers No. 4458. Centre for Economic Policy Research, London.

African Development Bank. 2000. African Development Report 2000. Oxford: Oxford University Press.

Ahmadi M (1976). A study of economic development and the formulation of a simulation model of the economy of Iran. PH.D thesis.

Alesina, A., and D. Rodrik. 1994. "Distributive policies and economic growth". The Quarterly Journal of Economics, 109: 465–89.

Alonso-Borrego, C. and M. Arrelano. 1995. "Asymmetrically normalized instrumental variable estimation using panel data". Journal of Business and Economic Statistics, 17 (1): 36–49.

American Journal of Scientific Research ISSN 1450-223X Issue 45 (2012), pp. 76-84 (PDF). Retrieved 2012-02-07.

Arrelano, M. and S. Bond. 1991. "Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations". Review of Economic Studies, 58: 277–97.

Arrelano, M. and O. Bover. 1995. "Another look at the instrumental variable estimation of errorcomponents models". Journal of Econometrics, 68: 29–52.

Auty RM (1990). Resource - Based industrialization: sowing the oil in eight developing countries. New York: Oxford University Press.

Auty, R. 1994. "Industrial policy reform in six large newly industrializing countries: The resource curse thesis". World Development, 22: 1.

Auty, R. 2001a. Resource Abundance and Economic Development. Oxford: Oxford University Press.

Auty, R. 2001b. "Why resource endowments can undermine economic development: Concepts and case studies". Paper prepared for the BP-Amoco Seminar, Lincoln College, and Oxford. 28–29 November.

Auty, R., and J.L. Evia. 2001. "A growth collapse with point resources: Bolivia". In R.M. Auty eds. Resource Abundance and Economic Development, pp.179–92. Oxford: Oxford University Press.

Auty, R. and R.F. Miksell. 2000. Sustainable Development in Mineral Economies. Oxford: Oxford University Press.

Balassa B (1985). Exports, policy choices, and economic growth in developing countries after the 1973 oil shock, Journal of Development Economics, 4(1): 23-35.

Band M (1987). An economic study of primary commodity export from development country regions to the world. IMF Staff Paper. 34(2): 191-227.

Barro, R. 1991. "Economic growth in a cross section of countries". The Quarterly Journal of Economics, 106 (2): 407–43. May.

Barro, R. 1996. "Democracy and growth". Journal of Economic Growth, 1: 3–27.

Barro, R. and J. Lee. 1993, "International comparisons of educational attainment". Journal of Monetary Economics, 32 (3):363-394), December.

Beblawi, H. and G. Luciani. 1987. The Rentier State (Nation, State and Integration in the Arab World): 240. London: Croom Helm and the Istituto Affan Internazionali.

Blundell, R. and S. Bond. 1998. "Initial conditions and moment restrictions in dynamic panel data models". Journal of Econometrics, 87: 115–43.

British Petroleum. 2007. British Petroleum Statistical Review of World Energy 2007. 24 OIL WEALTH AND ECONOMIC GROWTH IN OIL EXPORTING AFRICAN COUNTRIES 25 Bulmer-Thomas, V. 1994. The Economic History of Latin America since Independence. Cambridge Latin American Studies, vol. 77. New York: Cambridge University Press.

Chaudhry, Kiren Aziz. 1997. The Price of Wealth: Economies and Institutions in the Middle East. Ithaca: Cornell University Press.

Corden W.M. and J.P. Neary. 1982. "Booming sector and de-industrialization in a small open economy". The Economic Journal, 92(December): 829–31.

Ding, N. and B.C. Field. 2005. "Natural resource abundance and economic growth" Land Economics, 81(4): 496–500.

"Doing Business in Oman 2013". World Bank. Retrieved 23 October 2012.

Dollar, D. and A. Kraay. 2003. "Institutions, trade and growth". Journal of Monetary Economics, 50: 133–62.

Easterly, William and Ross Levine .1997. 'Africa's growth tragedy: Policies and ethnic divisions". The Quarterly Journal of Economics, 112 (4, November): 1203–50.

"Energy Information Agency, Country Analysis Briefs 2007". Eia.doe.gov. Retrieved 2011-04-28.

Fardmanesh, M. 1991. "Dutch disease economics and the oil syndrome: An empirical study". World Development, 19(6): 711–17.

Gavin, M. 1993. "Adjusting to terms of trade shock: Nigeria, 1972–88". In R. Dornbusch, ed, Policymaking in the Open Economy: Concepts and Case Studies in Economic Performance, pp. 172–219. EDI Series in Economic Development. Oxford University Press: Oxford.

Gylfason, T. 2001. "Natural resources, education, and economic development". European Economic Review, 45: 847–59.

Hall, Robert E. and Charles I. Jones. 1999. "Why do some countries produce so much more output per worker than others?" Quarterly Journal of Economics, 114(1, February): 83–116.

Hoeffler, A. 2002. "The augmented Solow model and the African growth debate". Oxford Bulletin of Economics and Statistics, 64(2): 135–58.

Jaggers, Keith and Monty G. Marshall. 2000. "Polity IV project". Center for International Development and Conflict Management, University of Maryland, College Park.

Jay Solomon (Dec 19, 2011). "U.S., Allies Step Up Iran Embargo Talks". The Wall Street Journal.

Iran (data). US Department of Energy (2011). Retrieved March 28, 2011.

Iran's oil exports. New York Times. Retrieved January 13, 2012.

Knack, Steven and Philip Keefer. 1997. "Does social capital have an economic impact? A cross-country investigation". Quarterly Journal of Economics, 112: 1252–88.

Kurtis, Glenn; Eric Hooglund. Iran, a country study. Washington D.C.

Lederman, D. and W. Maloney. 2002. "Open uestions about the link between natural resources and economic growth: Sachs and Warner revisited". Working papers Central Bank of Chile, No. 141.

Lal, D. and H. Myint. 1996. The Political Economy of Poverty, Equity and Growth. Oxford: Clarendon Press.

Jann Lay and Toman Omar Mahmoud. 2004. "Bananas, oil, and development: Examining the resource curse and its transmission channels by resource type". Kiel Working Papers No. 1218, Kiel Institute for the World Economy. Germany.

Mankiw, G.N., D. Romer and D.N. Weil. 1992. "A contribution to the empirics of economic growth". The Quarterly Journal of Economics, 107 (2, May): 407–37.

Mauro, Paolo. 1995. "Corruption and Growth". Quarterly Journal of Economics, 110: 681 712.

Mehlum, H., K. Moene and R. Torvik. 2005. "Institutions and the resource curse". Mimeo Norwegian University of Science and Technology, Trondheim.

Mehr News Agency: Iran eyes $250 billion annual revenue in 5 years Retrieved December 22, 2010.

Nkurunziza, J.D. and Robert H. Bates. 2003. "Political institutions and economic growth in Africa". CSAE Working Paper Series. No. 185:11-16. Centre for the Study of African Economies, University of Oxford, UK. http://www.bepress.com/csae/paper185 (Accessed 18 July 2005).

"Oman the comeback kid of oil". The National. 9 September 2012.

Polterovich, V. and V. Popov. 2006. "Democratization, quality of institutions and economic growth", Working Paper No. 2006/056. Moscow, New Economic School. Moscow. http://www.nes.ru/ russian/research/pdf/2006/PopovPolterovich.doc (Accessed 18 July 2005).

Przeworski, Adam, Michael R. Alvarez, Josè Antonio Cheibub and Fernando Limongi. 2000. Democracy and Development: Political Institutions and Well-Being in the World, 1950–1990. New York: Cambridge University Press. 26 RESEARCH PAPER 170

Rainis, G. 1991. "Towards a model of development". In L.B. Krause and K. Kim, eds., Liberalization in the Process of Economic Development. Berkeley: University of California Press.

"Registration of Crude Oil Imports and Deliveries in the European Union 2010". European Commission Directorate-General for Energy. Retrieved 21 August 2011.

Robinson, J.A., R. Torvik and T. Verdier. 2006. "Political foundations of the resource curse". Journal of Development Economics, 79: 417–68.

Rodrik, Dani, Arvind Subramanian and Francesco Trebbi. 2002. "Institutions rule: The primacy of institutions over geography and integration in economic development". NBER Working Paper No. 9305. National Bureau of Economic Research, Cambridge, Massachusetts (October).

Rodriquez, F. and J.D. Sachs. 1999. "Why do resource abundant economies grow more slowly? A new explanation and application to Venezuela", Journal Economic Growth, 4(3, September): 277–303. Ross, M.L. 2001. "Does OIL hinder democracy?" World Politics, 53: 325–61.

Sachs, J.D. and A.M. Warner. 1995. "Natural resource abundance and economic growth". NBER Working Paper No. 5398. National Bureau of Economic Research, Cambridge, Massachusetts.

Sachs, J.D. and A.M. Warner. 1997. "Natural resource abundance and economic growth". Center for International Development and Harvard Institute for International Development. Harvard University, Cambridge, Massachusetts. http://www.cid.harvard.edu/warner~files/natresf5.pdf. (Accessed, 18 July 2005)

Sachs, J.D. and A.M. Warner. 1999. "The big push, natural resource booms and economic growth". Journal of Development Economics, 59: 43–76.

Skapar-das S. 2002. "Warlord competition". Journal of Peace Research, 39: 435–46.

Skocpol, T. 1982. "Rentier state and Shi'a Islam in the Iranian Revolution". Theory and Society, 11(3): 256–82.

Solow, R.M. 1956. "A contribution to the theory of economic growth". The Quarterly Journal of Economics, 70: 65–94.

Smith B. 2004. "Oil wealth and regime survival in the developing world, 1960–1999". American Journal of Political Science, 48 (2, April): 232–46.

Spatafora, N. and A. Warner. 2001. "Macroeconomic and sectorial effects of term of trade shocks: The experience of oil exporting developing countries". Paper presented at European Economic Association Meeting, Brussels, and 22 August.

Tabellini, G. 2005. "Culture and institutions: Economic development in the regions of Europe". Mimeo. Bocconi University, Milan, Italy.

Taib, Mowafa. "2009 Minerals Yearbook: Syria". US Geological Survey.

"The Rising might of the Middle East super power - Council on Foreign Relations". Cfr.org. Retrieved 2012-02-07.

The World Factbook. "The World Factbook; Kuwait". Retrieved 2008-01-06.

Tornell, A. and P.R. Lane. 1999. "The voracity effect". American Economic Review, 89 (1, March): 22–46.

Vijayaraghavan, M. and W.A. Ward. 2004. "Institutions and economic growth: Empirical evidence from a cross-national analysis". www.business.clemson.edu/cit/Documents/0001302.pdf (Accessed, 15 March 2006).

Wantchekon, L. 1999. "Why do resource dependent countries have authoritarian governments?" Leiter Working Article 1999-11. Yale Center for International and Area Studies, New Haven.

www.worldbank.org

http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source=world-development-indicators

Yadullah Hussain (Dec 19, 2011). "Sanctions against Iran could trigger oil price spike". National Post. Retrieved Dec 20, 2011.

APPENDIXCES

Table 20: Bahrain's NOCs' companies

Company Name	Activities
Bahrain Petroleum Company (BAPCO)	Wholly owned by the government of Bahrain, is a fully integrated oil company. Its activities include oil and gas exploration and production, refining, storage and distribution of petroleum products and natural gas, and sales and exports of crude oil and refined products.
National Oil & Gas Authority	NOGA is the organization responsible for all petroleum and gas related issues in Bahrain, with a mission of the authority is to maintain and develop the sector
Gulf Petrochemical Industries Company (GPIC)	GPIC is one of the first Petrochemical Companies in the Middle East
Bahrain National Gas Co (BANAGAS)	

Table 21: Iran's NOCs' companies

Company Name	Activities
Ahwaz Pipe Mills Company	manufacturing oil and gas pipes and has a capacity of up to 420,000 tons per year. It operates three plants.
Arvandan Oil & Gas Company (AOGC)	responsible for the development of the Arvandan oil & gas fields. AOGC was established in 2004 working as the main operator in oil and gas production from Azadegan, Yadavaran, Darquain, Jufeyr, Moshtagh, Khorramshahr, Arvand, Susangerd, Band-e-Karkheh, Omid and other fields which are located in west of Karun River.
Central Iranian Oil Fields Company	supervises all upstream activities in the central oil and gas regions of the country, i.e. everything, excluding the oil-rich southern Khuzestan province, Caspian and offshore.
Exploration Service Company (ESC)	responsible for providing operational services in all facets of exploration and production activities within NIOC onshore regions.
Iran LNG Company	a subsidiary of National Iranian Gas Export Co. (NIGEC)
Iranian Fuel Conservation Organization	regimenting the fuel consumption in different sectors through review and survey of the current trend of consumption and executing conservation measures nationwide. See also: 2007 Gasoline Rationing Plan in Iran
Iranian Offshore Engineering and Construction	First Iranian general contractor to the oil and gas industries. Joint venture with IDRO

Company(IOEC)	
Iranian Offshore Oil Company(IOOC)	in charge of offshore oil fields in the Persian Gulf offshore oil and gas fields with the exception of South Pars. It focuses mainly on production platforms, ancillary facilities, and installations.
Iranian Oil Company(UK)	in charge of Rhum gasfield (a subsidiary of Naftiran Intertrade Co.)
Kala Naft (Canada) Ltd.	in charge of carrying out the procurement needs of the NIOC that cannot be met domestically
Kala Naft (London) Ltd.	in charge of carrying out the procurement needs of the NIOC that cannot be met domestically. However, NIOC organizations can in theory also purchase directly from suppliers.
Khazar Oil Exploration and Production Compan	in charge of Iran's Caspian Sea sector (onshore and offshore)
Naftiran Intertrade Co.(NICO) (Switzerland)	handles trading & swaps operations on behalf of NIOC. Iran has swap arrangements with Azerbaijan, Turkmenistan, and Kazakhstan, under which it ships crude from the Central Asian producers to its Caspian ports. In exchange Iran delivers the equivalent barrels of crude on behalf of the three Central Asian producers to their costumers in the Persian Gulf. In October 2010, Iran asked for the terms of the contract to be re-negotiated because it claims it has lost money because of it. On July 2, 2011, NIOC resumed oil swaps with Caspian states. NaftIran also buys the vast majority of Iran's gasoline imports. Naftiran is a key player

	in Iran's energy sector.
National Iranian Central Oil Company	supervises all upstream activities in the central oil and gas regions of the country, i.e. everything, excluding the oil-rich southern Khuzestan province, Caspian and offshore.
National Iranian Drilling Company(NIDC)	in charge of all offshore and onshore drilling activities. NIDC provides more than 90 percent of drilling services needed by the oil companies inside the country. In 2011, NIDC, drilled or completed 192 oil and gas wells, drilled 454 thousand meters of wells and provided more than 8 thousand expert or technical services to customers. As at 2012, 123 drilling rigs are in operation in Iran's offshore and onshore.
National Iranian Gas Export Co. (NIGEC)	in charge of gas exports for the National Iranian Gas Company. Until May 2010, NIGEC was under the control of the NIOC, but the Petroleum Ministry transferred NIGEC, incorporating it under NIGC in an attempt to broaden responsibility for new natural gas projects. See also: Persian pipeline and Peace pipeline.
National Iranian Oil Terminals Company	has four transport hubs including facilities on the three islands of Kharg, Lavan and Sirri consisting of 17 jetties capable of berthing tankers of all sizes to lift and export its crude oil that load more than 2,000 oil tankers per year. 2,000 of them dock in Bandar Abbas Port, 1,000 in Khark Island. Iran earned nearly $2 billion in 2009 from bunkering ships in the Persian Gulf (25% market share). Projected bunkering sites by 2015: Bandar Abbas (two sites), Kish, Qeshm, Bushehr, Mahshahr, Assalouyeh, Khark and Chabahar. Fujairah bunkering hub, UAE is Iran's main

	competitor in the Persian Gulf. The country's terminal storage capacity should soar to 100 million barrels by 2015 from the current 24 million barrels.
National Iranian South Oil Company (NISOC)	in charge of onshore oilfields in southern Iran. Focuses on onshore upstream activity in the province of Khuzestan. As Khuzestan is the main oil and gas-producing province, this entity is among the most significant in the NIOC family.
National Iranian Tanker Company	controls the second largest fleet of tankers in OPEC.
Pars Oil and Gas Company (POGC)	National Iranian Gas Company does not play a role in awarding upstream gas projects; that task remains in the hands of the National Iranian Oil Company.[51] Pars Oil and Gas Co. is in charge of the offshore North and South Pars gas fields and responsible for awarding the contracts for the different phases. Since 2010, it has been raising capital on the domestic and international markets in order to finance its projects.
Pars Special Economic Energy Zone Co.	handles and organizes all activities in the Pars Special Economic-Energy Zone, located near the South Pars gas field (a subsidiary of Pars Oil & Gas Co.)
Petroiran Development Company(akaPetroIran or PEDCO)	General offshore contractor (a subsidiary of Naftiran Intertrade Co.). PetroIran was initially formed to be the Iranian partner of foreign contractors with a 10% share in each buy-back contract.
Petroleum Engineering and	is the most important NIOC offshoot company. The responsibility

Development Company (PEDEC)	for all buy-back projects under operation, study or negotiation has been given to PEDEC. This company enjoys full authority to manage the projects. Further information: Foreign Direct Investment in Iran
Petropars	General contractor for the oil & gas industry (a subsidiary of Naftiran Intertrade Co.)
Research Institute of Petroleum Industry (RIPI)	NIOC will implement 69 research projects between 2010 and 2015 which include topics as enhancing recovery rate, modeling, control and management of reservoirs, production and exploitation, exploration, promotion and technology in drilling operations, establishment of an integrated data bank, industrial protection and environment, optimizing energy consumption, materials and equipments manufacturing, strategic and infrastructure studies, productivity and specialized maintenance.

Table 22: Kuwait's NOCs' companies

Company Name	Activities
Kuwait Foreign Petroleum Exploration Company	was established in 1981 under the Kuwait Petroleum Corporation as a subsidiary company. It is empowered to undertake crude oil and natural gas exploration, development, and production operations outside Kuwait.

Company Name	Activities
Kuwait National Petroleum Company, petrochemicals	is the national oil refining company of Kuwait. Established in October 1960, KNPC handles the responsibility of oil refining, gas liquefaction, and distribution of petroleum goods within the local market.
Kuwait Oil Company, oil exploration and production	is an oil company headquartered in Ahmadi, Kuwait. It is a subsidiary of the Kuwait Petroleum Corporation, a Government-owned holding company. KOC is the world's fourth-largest oil exporter. Chairman and managing director of the company is Sami al-Rushaid.
Kuwait Petroleum Corporation, petroleum	is Kuwait's national oil company, headquartered in Kuwait City. It was founded on January 27, 1980 as an umbrella company, integrating KOC, KNPC, KOTC and PIC and effectively placing them under government control.
Kuwait Petroleum International	often referred to by its trademark Q8 (pronounced Que-Eight, or Kuwait), refines and markets fuel, lubricants and other petroleum derivatives in Europe. It is the international subsidiary of Kuwait Petroleum Corporation.[1] It supplies 4,000 retail service stations, as well as direct sales operations delivering fuel and heating oil to domestic and industrial users.

Table 23: Oman's NOCs' companies

Company Name	Activities
Oman LNG	is a LNG plant in Qalhat near Sur, Oman. The company was established by the Royal decree of Sultan Qaboos of Oman in 1994. construction was launched in

	November 1996, and the plant was commissioned in September 2000. The main shareholder is the Government of Oman (51%) in cooperation with Royal Dutch Shell (30%), Total S.A. (5.54%), Korea LNG (5%), Partex Oil & Gas (2%), Mitsubishi Corporation (2.77%), Mitsui & Co. (2.77%), and Itochu Corporation (0.92%).
Oman Oil Company	is a national oil investment company of Oman. It is wholly owned by the Government of the Sultanate of Oman. Creation of the Oman Oil Company was proposed in 1992 and the company was established in 1996. The chief executive officer of the company is Ahmed Al-Wahaibi.[1] In addition to the oil and gas exploration and production, the company also invest in power generation, energy transportation and infrastructure, oil refining, and petrochemicals manufacturing.
Oman Refinery Company	was commissioned with a refining capacity of 50,000 barrels per day (7,900 m3/d) to cater for the Oman's local strategic demand of refined products. The Refinery produced 85,000 bbl/d (13,500 m3/d) after modifications that took place in 1987 and 2001. A revamp project in 2007 brought up its capacity to 106,000 bbl/d (16,900 m3/d). A merger with Sohar Refinery Company was finalised in 2007.[1] The new, merged company is called Oman Refineries and Petrochemical Company (ORPC).
Petroleum Development Oman	is the foremost hydrocarbon exploration and production company in the Sultanate of Oman. It accounts for more than 90% of the country's crude-oil production and nearly all of its natural-gas supply. The Company is owned by the Government of Oman which has a 60% interest, Royal Dutch Shell which has a 34% interest, Total which has a 4% interest and Partex which has a 2% interest. The first economic find of oil was made in 1962, and the first consignment of oil was exported in 1967.

Table 24: Saudi Arabia's NOCs' companies

Company Name	Activities
Saudi Aramco	officially the Saudi Arabian Oil Company, is a Saudi Arabian national oil and natural gas company based in Dhahran, Saudi Arabia. Saudi Aramco's value has been estimated at up to US$10 trillion in the Financial Times, making it the world's most valuable company.
ALDREES Petroleum and Transport Services Company	was established in 1957, by selling its oil products stored in barrels and tanks. In 1963 the Company rented its first Petrol Station at Al-Rail Street in Riyadh, the Capital of the Kingdom.

The year 1965 brought real prosperity to the Petroleum Services Division of the Company by having owned its first Petrol Station at Al-Dhahran Street, Malaz located at the center area of Riyadh. |
| **Petromin Corporation** | The Petromin Corporation is a privately owned Saudi Arabian corporation specializing in lubricant oils including manufactural, industrial, and automotive oils and lubricants. The company was established by a royal decree in 1968 by a joint venture between Saudi Aramco and Mobil investments and started production at its first blending plant in Jeddah. |

Table 25: Syria's NOCs' companies

Company Name	Activities
Abdulkarim Group	specialized in producing a wide product selection of oils, oil field chemicals and metallic products.
MAHRUKAT Co.	For the storage and distribution of Petroleum products. Considered to be one of the most important companies of the public-sector, and of Commercial nature in the Syrian Arab Republic .
Ministry of Petroleum	The governmental center in the fields of producing, transporting, distributing and investing petroleum and mineral resources, searching for these sources and investing some of them according to effective laws and rules.
Oil & Gas Directory	Comprehensive directory to Oil & Gas companies in Syria.
Uniconsult Middle East	is a privately owned and operated engineering and commercial consulting company established in Damascus, Syria in 1965.

Bahrain	Bahrain	Bahrain	Bahrain	Country Name
BHR	BHR	BHR	BHR	Country Code
Military expenditure (% of GDP)	Oil rents (% of GDP)	GDP growth (annual %)	Fuel exports (% of merchandise exports)	Indicator Name
MS.MIL.XPND.GD.ZS	NY.GDP.PETR.RT.ZS	NY.GDP.MKTP.KD.ZG	TX.VAL.FUEL.ZS.UN	Indicator Code
5.028374514	76.60084468	1	0.290528101	1980
5.093962853	69.04652194	-5.316696284	0.213286222	1981
5.105633803	43.77741123	-7.556217507	0.129751979	1982
5.139137042	33.71709975	6.376377312	0.057021754	1983
5.295566502	36.27883482	5.003644224	0.175614336	1984
4.827903726	32.78377451	-4.758267151	0.072613676	1985
4.600171828	23.32914893	1.18299553	0.034291311	1986
4.683095526	29.9740461	10.39900691	0.00424573	1987
4.750904614	21.08170078	6.999993825	0.003700127	1988
4.56582732	25.67378956	0.364005338	0.004304551	1989
4.77398815	31.77771954	4.43799733	0.004427745	1990
4.940751345	23.7914077	11.22999972	0.032088902	1991
4.037505293	22.25212881	6.689996479	0.025898214	1992
4.226485979	17.68194366	12.87000742	0.00933351	1993
4.698364969	14.94841095	0.250001	55.54908803	1994
4.774897681	15.74345671	3.929992241	53.12921771	1995
4.260859273	18.7023136	4.110005383	0.017637078	1996
3.615957636	17.00401537	3.09299925	1	1997
3.405297502	10.45840774	4.790002365	1	1998
3.196222123	13.74582589	4.3000008	1	1999
3.011389854	20.59789362	5.29999345	0.03992076	2000
3.951099975	16.63961756	4.6	66.93353732	2001
3.384565454	16.0661095	5.26	69.36640397	2002
	16.99113827	7.2	72.5181646	2003
	19.936025	5.6	75.54461779	2004
	23.98943832	7.8	78.15928027	2005
	24.22003651	6.7	80.5901159	2006
	23.01609225	8.34	80.83024976	2007
	26.53038008	6.3	69.06259078	2008
	17.43049059	3.1	68.60204297	2009
	19.20932707	4.5	74.3474764	2010
	1	1	1.050182112	2011
	1	1	1	2012

Iran, Islamic Rep.	Iran, Islamic Rep.	Iran, Islamic Rep.	Iran, Islamic Rep.	Country Name
IRN	IRN	IRN	IRN	Country Code
Military expenditure (% of GDP)	Oil rents (% of GDP)	GDP growth (annual %)	Fuel exports (% of merchandise exports)	Indicator Name
MS.MIL.XPND.GD.ZS	NY.GDP.PETR.RT.ZS	NY.GDP.MKTP.KD.ZG	TX.VAL.FUEL.ZS.UN	Indicator Code
1.951789923	21.21796455	-13.22964483	1	1980
2.410274784	18.19459926	-5.198628647	1	1981
2.050125488	21.66108857	12.95679347	1	1982
1.655580071	16.29131145	12.60821013	1	1983
1.38891239	13.34028212	-1.57372012	1	1984
1.51628681	11.37933249	2.065132171	1	1985
2.361287203	3.771357135	-9.170797525	1	1986
1.787789046	10.09941392	-1.403694332	1	1987
1.917471076	9.449220429	-6.299226828	1	1988
2.127595639	14.00981516	6.177959519	1	1989
2.352840991	20.54884998	13.68776536	1	1990
2.974176928	1	12.59435696	1	1991
3.682686251	1	4.251070755	1	1992
3.875332137	33.08492491	-1.575789783	1	1993
2.314574478	27.47052153	-0.350553105	1	1994
2.740885376	22.584268	2.652685824	1	1995
3.052490982	22.41596594	7.100735147	1	1996
3.507930929	21.67360112	3.384806778	85.74923838	1997
3.681952854	13.57696357	2.740585246	81.08227199	1998
2.730675815	18.56274395	1.933822216	86.03514013	1999
1.919834009	34.41498931	5.143162536	88.74210522	2000
	23.89305793	3.669671948	84.87747416	2001
	23.7424541	7.515598158	70.09064692	2002
	26.46864473	7.114681217	79.13319012	2003
	29.74163604	5.084051514	78.54658675	2004
	38.32612745	4.623405402	82.61105449	2005
	40.28698604	5.893936099	82.79351043	2006
	34.99250944	7.824788319	1	2007
	39.88777448	2.3	1	2008
	23.45801663	1.8	1	2009
	1	1	70.77493648	2010
	1	1	70.4786304	2011
	1	1	1	2012

Kuwait	Kuwait	Kuwait	Kuwait	Country Name
KWT	KWT	KWT	KWT	Country Code
Military expenditure (% of GDP)	Oil rents (% of GDP)	GDP growth (annual %)	Fuel exports (% of merchandise exports)	Indicator Name
MS.MIL.XPND.GD.ZS	NY.GDP.PETR.RT.ZS	NY.GDP.MKTP.KD.ZG	TX.VAL.FUEL.ZS.UN	Indicator Code
8.244994294	76.34917645	-20.61552527	88.85138917	1980
8.539948492	56.02466277	-19.02970301	83.60010004	1981
48.70741634	42.78507874	-12.31483705	75.64603103	1982
117.3876949	50.66749811	10.41418854	79.08972145	1983
31.78580571	52.06858762	5.239900319	82.77825927	1984
12.44761601	44.90692913	-4.257718449	1	1985
13.26558312	27.17300373	8.565233279	0.278945999	1986
13.58146414	31.70327504	8.142556614	0.235079667	1987
10.29768926	31.6473273	-10.04966697	0.192735047	1988
8.092108836	40.29678188	25.8951771	3.048986033	1989
8.802215659	36.0495733	1	92.62101371	1990
7.590712178	10.3171684	1	80.35513264	1991
7.147796024	32.71488692	1	94.54035055	1992
7.700214933	42.16666416	33.99046785	95.06815411	1993
7.402933563	40.6881291	8.436165667	93.87055706	1994
6.539566833	40.63077668	4.858291021	94.67626959	1995
5.805788662	42.74214976	0.605126941	95.22441232	1996
4.344508965	41.21089657	2.473325085	84.82590999	1997
3.559552087	30.64207962	3.662055118	79.26136238	1998
3.61867346	34.44399562	-1.789009233	78.8025526	1999
3.031297325	49.4199503	4.694582091	94.30548807	2000
4.055384212	43.73109734	0.729026469	93.23043313	2001
3.796935511	36.64951071	3	92.49862041	2002
3.194763624	41.56466404	17.32	93.45656093	2003
	48.80201075	10.2	94.59859657	2004
	58.07896329	10.6	1	2005
	57.38189384	5.2	96.47016377	2006
	54.540381	4.373	96.30702113	2007
	60.67307899	4.97	96.49106338	2008
	42.6018649	-5.15	93.20822277	2009
	48.32441934	3.41	1	2010
	49.86871202	8.19	1	2011
	1	1	1	2012

Oman	Oman	Oman	Oman	Country Name
OMN	OMN	OMN	OMN	Country Code
Military expenditure (% of GDP)	Oil rents (% of GDP)	GDP growth (annual %)	Fuel exports (% of merchandise exports)	Indicator Name
MS.MIL.XPND.GD.ZS	NY.GDP.PETR.RT.ZS	NY.GDP.MKTP.KD.ZG	TX.VAL.FUEL.ZS.UN	Indicator Code
18.26639789	61.46858307	6.035442842	96.16208575	1980
16.67776668	54.72135282	17.04707884	94.12768728	1981
16.5149458	47.63659033	11.56983812	92.32951168	1982
14.74500091	46.27675461	16.66666979	91.78732637	1983
16.24929509	42.66827812	16.71159464	91.72287975	1984
15.36347738	41.32703354	14.00719671	93.00384708	1985
15.68256396	27.73513755	2.002159484	89.99496125	1986
14.62192156	38.66944659	-3.440783503	91.65383524	1987
12.5461757	28.61123605	5.964027268	87.96843832	1988
12.48049921	34.23783438	11.75686153	89.15546234	1989
12.48193727	40.77991296	-0.13042513	91.88149218	1990
11.37313281	35.03458543	6.074078191	87.41818754	1991
10.59011413	32.10546851	8.413883432	83.76778328	1992
12.16348346	29.20971696	6.04296035	78.90815456	1993
12.42703334	27.50376644	3.875774699	76.49527917	1994
12.19364964	29.9887093	4.996819408	78.67524388	1995
12.05860651	34.95973978	3.045939792	80.49875134	1996
11.81519818	31.61701251	6.033512418	76.70021009	1997
10.95328952	19.87578087	2.642338019	68.09065575	1998
10.32214015	27.50447982	-0.124806736	76.98910372	1999
7.62195122	42.31300985	5.401372725	82.53758575	2000
9.578246393	34.12441	7.481596829	80.5299059	2001
8.461088882	32.49472044	2.568324004	77.26509991	2002
5.97826087	33.14819309	0.3	76.83369817	2003
	37.88780063	3.4	91.10784222	2004
	44.03679338	3.994	91.84260764	2005
	42.68125867	5.5	91.35512817	2006
	39.69651185	6.8	89.07468539	2007
	40.4373586	12.8	86.38909559	2008
	31.60433861	1.1	75.02563832	2009
	36.12800228	4	77.84384093	2010
	40.21141584	5.5	74.37570643	2011
	1	1	1	2012

Saudi Arabia	Saudi Arabia	Saudi Arabia	Saudi Arabia	Country Name
SAU	SAU	SAU	SAU	Country Code
Military expenditure (% of GDP)	Oil rents (% of GDP)	GDP growth (annual %)	Fuel exports (% of merchandise exports)	Indicator Name
MS.MIL.XPND.GD.ZS	NY.GDP.PETR.RT.ZS	NY.GDP.MKTP.KD.ZG	TX.VAL.FUEL.ZS.UN	Indicator Code
15.15192833	80.23745772	6.519218691	99.18750179	1980
13.39027912	66.8540585	4.690926872	99.27039752	1981
14.02429213	48.05456366	-11.09816427	98.78636972	1982
12.46978293	39.87167189	-8.216560944	1	1983
11.28415828	37.84138159	-3.088325393	1	1984
12.46537231	29.99283808	-4.32416815	96.37613797	1985
10.6447607	25.63677652	5.090299607	1	1986
9.27846839	29.04809333	-3.983787696	1	1987
8.468077873	26.70407502	8.224008073	85.14745447	1988
11.00093575	30.60894769	0.062467923	86.87003101	1989
14.31103749	41.85172137	8.328505492	91.67644971	1990
11.38191745	39.67176658	9.103786359	94.09824871	1991
10.59439031	38.05133398	4.62855192	89.18482372	1992
11.48921154	33.88102062	0.026066163	92.86820797	1993
9.812648777	30.32123991	0.665557266	91.47634907	1994
8.737112377	31.2388666	0.200913397	88.45875168	1995
8.352835782	34.38191059	3.383819661	89.54970384	1996
8.046105318	30.22365069	2.592662071	1	1997
8.294442643	22.32512558	2.834565199	85.31877427	1998
9.214236794	26.29694239	-0.74851056	89.43532383	1999
8.024889385	40.3109032	4.864573291	92.05857411	2000
10.95653405	33.74050231	0.547438794	87.3759696	2001
10.03667619	30.33254006	0.128051482	89.40471779	2002
8.413473318	37.1598202	7.65907954	88.30033086	2003
	45.03866599	5.26691709	89.63492712	2004
	53.8634487	5.553678497	90.93566386	2005
	56.67111882	3.157775979	91.01429522	2006
	55.47152024	2.017173058	90.105985	2007
	64.25200759	4.228693235	91.19152111	2008
	43.6099275	0.096515746	87.57548408	2009
	47.21876306	4.641909814	87.45297917	2010
	55.52849724	6.774455063	88.56521887	2011
	1	1	1	2012
	1	1	1	

Syrian Arab Republic	Syrian Arab Republic	Syrian Arab Republic	Syrian Arab Republic	Country Name
SYR	SYR	SYR	SYR	Country Code
Military expenditure (% of GDP)	Natural gas rents (% of GDP)	GDP growth (annual %)	Fuel exports (% of merchandise exports)	Indicator Name
MS.MIL.XPND.GD.ZS	NY.GDP.NGAS.RT.ZS	NY.GDP.MKTP.KD.ZG	TX.VAL.FUEL.ZS.UN	Indicator Code
7.309980446	0.034627318	11.98320185	78.85560826	1980
7.420101988	0.032381373	9.507711695	79.012205	1981
6.410065293	0.032395926	2.122151361	74.7037732	1982
9.693032571	0.042485419	1.42917395	68.84713082	1983
8.3685386	0.06914629	-4.07174187	63.06101931	1984
6.743120929	0.07993391	6.115070041	74.05294336	1985
7.231758088	0.223417244	-4.945702973	42.03140905	1986
6.953018959	0.18199657	1.907546505	51.81300014	1987
6.035981397	0.422808809	13.26628909	1	1988
5.888120143	0.667788798	-8.958214015	39.16009682	1989
5.806862984	0.781668528	7.64077232	45.17033314	1990
5.811313015	0.879065951	7.901270704	1	1991
5.340132886	0.794916902	13.47033376	69.58602642	1992
5.258312121	0.906027229	5.178987103	1	1993
5.210026239	1.178337736	7.652937118	1	1994
6.246724194	1.34764184	5.75001528	62.52506318	1995
5.541128275	1.60772992	4.4	68.22721672	1996
5.025098942	2.171697283	1.8	65.1320433	1997
4.393026291	2.092006636	6.337264023	57.05449329	1998
4.098470334	1.777119464	-3.553656913	68.38121491	1999
3.550016584	3.644761736	2.742857397	76.36141419	2000
4.009287256	2.922120973	5.20094281	77.43665136	2001
3.945538304	2.532797123	5.9	72.16648189	2002
	4.166086459	0.6	71.34700875	2003
	4.083589139	6.9	67.62874286	2004
	4.836857538	6.2	67.6564414	2005
	4.147351348	5	40.35426947	2006
	3.376192937	5.7	41.10716939	2007
	3.638247913	4.5	38.57580356	2008
	1.663136117	6	37.8245128	2009
	2.036546615	3.2	49.88707374	2010
	1	1	1	2011
	1	1	1	2012

Graph7: Oil: Crude oil prices 1861 - 2010