

**THE GEOPOLITICAL IMPLICATIONS OF SAUDI ARABIA'S ROLE AS A SWING PRODUCER  
OF OIL, THE THREAT OF THE SHALE OIL REVOLUTION TO SAUDI STABILITY, AND THE  
MIDDLE EAST BALANCE OF POWER POST-U.S. ENERGY INDEPENDENCE**

by  
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## **ABSTRACT**

**BACKGROUND** Saudi Arabia's oil production and proven reserves play an important role in global energy security. This thesis examines topics in energy security, with a focus on Saudi Arabia and security implications for both the U.S., Saudi Arabia, and regional considerations for the Middle East. Chapter 1 examines the role of Saudi Arabia as a swing producer of oil and the effect this has on U.S. security. Saudi Arabia uses this role as an instrument of state power, allowing it to maintain an influential position in international relations. Chapter 2 examines the impacts of the U.S. shale oil revolution on Saudi Arabia's stability. Since Saudi Arabia uses oil export funds for internal and external stability, an increased shale oil market share creates a long-term stability vulnerability. Chapter 3 examines how changes to U.S. energy independence may affect the balance of power in the Middle East in the future. In the end, economic interests are more important to the U.S. than the physical supply of oil.

**AIM** This research study identifies Saudi Arabia's role as a swing producer and assess what it means in the context of U.S. energy security. By examining when Saudi Arabia abandons this very critical role, the aim is of generating a theory related to the area of U.S. energy security. The research also aims to understand Saudi Arabia's relationship with oil and its implications because of U.S. shale oil revolution. The final aim is to understand how U.S. energy independence is causing Saudi Arabia and other powers with interests in the region to maneuver.

**METHOD** A use case methodology is used to guide data collection, analysis, and reporting. Data was collected from scholarly journals, books, and various newspapers

and magazines. Chapter 1 uses congruence procedures to investigate dissimilarities between when Saudi Arabia acted as a swing producer and when it abandoned the role. The data collected and analyzed in Chapter 1 related to the importance of Saudi Arabia's role is employed in Chapter 2 to understand the implications of Saudi Arabia's collapse due to shale oil. Chapter 3 continues on the shale oil theme, which helps the U.S. achieve energy independence, to analyze cases that have indicated shifts in U.S. policy decision-making in the region. The analysis methods utilized the balance of power theory to understand the regional players in the empirical data.

**FINDINGS** Through the congruence procedure use case analytical process, it emerged that Saudi Arabia uses its swing production role as an instrument of state power to play a critical role in keeping the market balanced, but it abandons that role when its market share is threatened by competition. Oil is an essential source of power in maintaining internal and regional stability but it and the country are under threat due to the unconventional oil revolution. The benefits of enhanced U.S. energy independence due to unconventional oil have given the country flexibility to diverge from traditional policies in the region, causing concern amongst Saudi Arabia and to begin searching for new alliances, potentially weakening U.S. influence and regional stability.

**CONCLUSIONS** Saudi Arabia plays a unique and critical role in the oil market that it seeks to preserve for self-interests. This role of swing producer is undertreat because of the destabilizing effects shale oil will have on the country. The U.S. has already begun to pivot to Iran, causing Saudi Arabia to begin its shift to other global powers. The U.S.

hegemony in the Middle East is undertreat due to these geopolitical trends, likely placing the region's balance of power in disequilibrium.

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## **FOREWORD**

In the fall of 2012, I chose to immerse myself in the Johns Hopkins Masters in Global Security Studies. My courses covered contemporary subjects that gave me a better understanding of world politics, foreign affairs, and international security. For the past three years, I closely followed and researched Saudi Arabia's geopolitical situation, relating it to my course work and how it affects U.S. national security. For my thesis, I chose to focus on energy because it is what I view as the most important security variable in the relationship.

The topic selection was rewarding due to the turmoil over the past few years. At the start of the research in 2013, King Abdullah Al Saud ruled Saudi Arabia, oil was over \$110 a barrel and the Islamic State was unknown. The outcome of the Arab Spring was also unknown and had glimpses of positive change for the region. Since then Saudi Arabia saw a major leadership reshuffle including a new king, Salman Al Saud. The country waged a draining and protracted war in Yemen. The Islamic State declared its caliphate and became a global threat. The U.S. relations with Iran improved significantly after reaching agreement on the nuclear framework. Moreover, the Saudi government budget saw historic deficits after oil price fell below \$33 a barrel.

Some of the predictions and assumptions I was making in 2012 have come into fruition including the price drop of oil and Saudi budget deficit. I thought excess shale oil supply was going to be the direct cause, but it turns out the primary factor is Saudi Arabia's excess supply, aiming to protect the countries market share against U.S. shale oil and reemerging Iranian production. This suggests that while not perfect, the selection of my research is on the right track and its relevance to global security is timely.

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## **INTRODUCTION**

Saudi Arabia's oil production and proven reserves are critical to global energy and U.S. national security. Similarly, the U.S. plays a vital role in Saudi Arabia's stability by acting as its main guarantor of security against internal and external threats. This alliance is shaped by mutual benefit for both parties. This thesis examines topics in energy security, with a focus on Saudi Arabia, the security implications for the U.S. and Saudi Arabia, and regional security considerations for the Middle East as a whole.

The thesis is structured into three chapters that are thematically tied. Chapter 1 researches the benefits and motivations of why Saudi Arabia acts as a swing producer of oil, and how that ties back to U.S. national security. In this research it was discovered that acting as a swing producer has tremendous benefit for Saudi Arabia, the U.S., and the global energy security framework. However, there were times when Saudi Arabia stopped acting as a swing producer, mainly when prioritizing its own interests over that of the U.S. or the world.

It was discovered in Chapter 1 that U.S. shale oil was the contemporary threat that caused Saudi Arabia to stop acting as a swing producer. Due to this finding, I chose to research the impact of U.S. shale oil on Saudi Arabia's stability for Chapter 2. In this research, I discovered that U.S. shale oil was a double-edged sword for Saudi Arabia because it threatens the country's oil export market share and it enhances U.S. energy independence, giving it the flexibility to pursue policy that is in U.S. interest, but not always in Saudi Arabia's interest.

Chapter 3 takes the policy disagreements highlighted in Chapter 2 between the two traditional allies to examine the impact of U.S. energy independence on the region's balance of power. I examine the range of alliance options Saudi Arabia has and how pivots to U.S. rivals weakens U.S. hegemony in the region. My hypothesis is that energy independence combined

with the Iran nuclear deal will change the U.S. relationship with its Gulf allies, which will cause various shifts in geopolitical alliances and the region's balance of power.

Chapter 1 aims to define Saudi Arabia's role as 'swing producer' and assess what it means in the context of a U.S. energy security framework. This thesis contributes to the field of energy security and further understanding of the link between oil dependence and U.S. national security by addressing the following research questions: Why does Saudi Arabia act as a swing producer in the global oil market and what impacts does it have on U.S. national security?

This research question is important because it seeks to explain if states with large resource endowments can use them as a source of hard and soft power for geopolitical leverage. Saudi Arabia uses its swing production role as an instrument of state power to maintain its position in the international geopolitical system and strengthen its balance of power and relationship with the U.S. It is important for policymakers to know if Saudi Arabia's role as a swing producer can be used for political leverage to benefit or harm the U.S. The aim of the research is to show that Saudi Arabia plays a critical role as a swing producer in the oil market and that role has implication on U.S. national security.

Chapter 2 examines how Saudi Arabia's rulers mitigated internal and external destabilization threats, the role oil played on their various sources of power, and the threats posed by the unconventional oil revolution to their evolving security posture. This paper concludes that oil is an essential factor in maintaining internal and regional stability and that this source of power and therefore Saudi Arabian stability is under threat due to the unconventional oil revolution. Instability in Saudi Arabia could damage its ability to use spare capacity in the short and long-term to manage supply disruptions, increasing risk to U.S. national security associated with oil price shocks. This paper further informs the global energy security field of

study by offering additional analysis on to the impact of the shale oil revolution on Saudi Arabia's stability.

A common theme that emerged from the first two chapters was disruptive changes in energy markets have the potential to produce geopolitical ripples. In Chapter 3, I try to understand the secondary effects of a major shift in U.S. policy due to energy independence enhanced by shale oil. The aim of the paper is to contribute to the international security field of study by providing a greater understanding of the linkage between the global oil market and the Middle East region's security dynamics.

Ultimately, the most influential factor in determining the U.S. strategic interest and footprint in the Middle East is tied to economic security dependence rather than the physical supply of oil. Oil dependence caused the U.S. to get involved in unstable and hostile region. Domestic oil abundance will not end these involvements due to the importance of oil to the U.S. economy, and the transportation sector, in particular. Instability in the Middle East will continue to pose economic risk to the U.S. and influence national security policy. No matter how close the U.S. comes to self-sufficiency, volatility in the Middle East will remain a concern.

# **CHAPTER 1: Why Does Saudi Arabia Acts as a Swing Producer in the Global Oil Market and What Impact Does it Have on U.S. National Security?**

## **1.1 INTRODUCTION**

This paper aims to define Saudi Arabia's role as 'swing producer' and assess what it means in the context of a U.S. energy security framework. This thesis contributes to the field of energy security and further understanding of the link between oil dependence and U.S. national security by addressing the following research questions: Why does Saudi Arabia act as a swing producer in the global oil market and what impacts does it have on U.S. national security?

Energy from natural resources is vital to human welfare, the progress of civilization, and the sustainable development of States. Energy Security is an important concept in global security studies because it links national security to the availability of natural resources for energy consumption. Energy security challenges are very complex, dynamic, and pose a great multi-dimensional threat to all nations. The modern world highly depends on fossil fuels for energy, especially oil. Unfortunately, oil lacks easily available substitutes for its vast products. Disruption of oil supplies have detrimental effects on vital state functions such as food production, medical care, and internal security.

Threats to energy security include manipulation of energy supplies by producers, competition over energy sources by consumers, and the reliance on foreign countries for energy. Complicating the latter energy security issue is the political instability of energy producing countries. Evaluating and mitigating the vast and complex energy security threats requires a framework for understanding the dynamics and interdependencies of the global energy market, the relations between major producer and consumer countries, and states geopolitical interests.

Out of the various natural energy resources including fossil fuels, renewable, and nuclear, oil is the most important energy source to global security. United States (U.S.) energy security focused on oil in World War II, when fear of fuel shortages threatened to contain German and Japanese operations. Today's U.S. energy security framework is still dominated by oil due to its strategic importance. The U.S. consumes a quarter of the world's oil yet it has only three percent of the world's conventional oil reserves<sup>1</sup>. The majority of the globe's oil is concentrated in the Middle East, a turbulent region where Saudi Arabia is the most dominant producer.

With the largest crude oil reserves and production capacity, Saudi Arabia's oil supply is critical to the world's energy needs. Saudi Arabia's role in the global oil market is controversial and earns considerable attention by news media, energy experts, and policymakers. These groups commonly refer to the country with the distinction of 'swing producer' It is not clear that everyone understands the definition of swing producer and the role it plays in the global oil market, and more importantly, how it impacts U.S. national security.

Realism, liberalism, and other international relations theories may interpret the reason Saudi Arabia acts as a swing producer differently. I hypothesize that Saudi Arabia uses its swing production role as an instrument of state power to maintain its position in the international geopolitical system and strengthen its balance of power and relationship with the U.S.

The following outline for the paper is established. First, a short background on the field of study describing how Saudi Arabia came to its role in the oil market and a description of its production capabilities. The second part of the paper provides a literature review of the energy

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<sup>1</sup> Korin, Anne, "Stripping Oil of Its Strategic Status." The Aspen Institute. February 2011. [https://assets.aspeninstitute.org/content/uploads/files/content/upload/2011\\_Energy\\_CR-San\\_Juan.pdf](https://assets.aspeninstitute.org/content/uploads/files/content/upload/2011_Energy_CR-San_Juan.pdf)

security framework and Saudi Arabia's oil policy with the aim of understanding the swing production role and how it lines up to the national security challenge. To understand how the role aligns with U.S. interests, the empirics section analyzes how Saudi Arabia's swing production decisions align with U.S. national interests. This is fundamental to understanding the security implications associated with the role.

The realism assumption is that Saudi Arabia normally makes swing production decisions aligning with its national interests. Another possibility is that since Saudi Arabia depends on the U.S. security umbrella, the swing production decisions factor in U.S. interests. The extent those decisions are market driven versus U.S. interests is unknown. The conclusion will provide analysis for reasons that would cause Saudi Arabia to shift swing production policy and choose its own interests over those of the U.S.

There is substantial value in research that combines a stronger understanding of the connection between oil and political relationships to predict possible geopolitical consequences. This research is an essential foundation for the analysis and design of policies that promote U.S. energy security and reduce exposure to the consequences of oil influence and trade with Saudi Arabia.

## **1.2 BACKGROUND**

The importance of oil to the world economy starts with its role in transport and petrochemicals. Oil fuels the 650 million road vehicles on the planet, even the tires and the asphalt cars drive on comes from oil derivatives<sup>2</sup>. Global aviation is entirely dependent on jet kerosene, an oil derivative, which is required to keep the nearly 13,500 fixed wing passenger jets

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<sup>2</sup> Kenny, Niamh. 2011, "Energy Fundamentals: Understanding the oil & Gas Industries". Energy Intelligence Research, Chapter 1.

flying<sup>3</sup>. The petrochemical industry is worth \$2.9 trillion and is almost entirely oil derived. Oil has so much importance to the world economy that it has fueled geopolitical rivalries and market share battles.

No other commodity comes close to being as vital for the health and prosperity of the worldwide economy as much as oil, accounting for up to 10% of international trade<sup>4</sup>. The 80 million barrels per day (MBD) of oil produced worldwide amount to a global oil industry worth \$240 billion per year<sup>5</sup>. Oil also has secondary effects on the economy, having a major impact on currency movements and inflation, and other commodity prices. Oil also plays a major role in food production; an oil crisis would disrupt the distribution of food causing industrialized countries to be out of food in their grocery stores within days<sup>6</sup>.

The geopolitics of oil plays a dominant role in U.S. and global national security. This is because many of the world's leading oil producing countries are either politically unstable or at odds with the U.S.<sup>7</sup>, threatening the global oil market supply and therefore U.S. energy and economic security. Additionally, for all military powers including the U.S., oil plays a vital role as a source of fuel for forces on land, sea, and air.

Oil is extremely political and global in its nature for several reasons<sup>8</sup>. Oil played a key role in the industrialization process of the world, therefore governments and major world powers attempted to gain control over oil reserves domestically and abroad. Increasing the

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<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Kenny, Niamh. "Energy Fundamentals: Understanding the oil & Gas Industries". Energy Intelligence Research (2011), Chapter 2.

<sup>6</sup> Green, B. M., 1978. Eating Oil - Energy Use in Food Production. Westview Press, Boulder, CO. 1978.

<sup>7</sup> The Institute for the Analysis of Global Security, 2004. The Geopolitics of Oil. <http://www.iags.org/geopolitics.html>. (Accessed April 19, 2013).

<sup>8</sup> The Gulf Oil and Gas Sector: Potential and Constraints, (Abu Dhabi: The Emirates Center for Strategic Studies and Research, 2006), 201.



competition further is the fact that the large oil reservoirs have been overwhelmingly concentrated in a small number of countries, mainly in the Middle East. In today's globally integrated oil market<sup>9</sup>, Saudi Arabia is the world's largest oil exporting nation and is the U.S.'s oldest energy producing ally in the Middle East. To understand the political role of Saudi Arabia, one needs to understand its economic role in the world's energy market.

Oil constitutes 90 percent of all transport fuels and 36 percent of the world's primary energy demand,<sup>10</sup> which underscores why oil and Saudi Arabia are important to the security of the world. Saudi Arabia's is the largest supplier in the Organization of the Petroleum Exporting Countries (OPEC), whose mission is to coordinate policies of the largest oil-producing countries in the world. Saudi Arabia alone produces an average of 12 percent of total global production. In addition, Saudi Arabia has one-fifth of the world's proven reserves, estimated at 262.5 billion barrels<sup>11</sup>. Maintaining this high production and maximizing profit off their vast reserves requires vast oil infrastructure and a sound long-term production strategy.

A crisis in Saudi Arabia would have detrimental effects on U.S. national security because it is a strategic ally in the oil-rich Middle East and a giant oil producer, unquestionably destabilize the global oil market and the region if the country destabilizes. The stability and reliability of Saudi Arabia as a supplier of oil to the world plays a vital role in global economic growth and the daily lives of billions of people relying on energy around the world. In preliminary research on the role of Saudi Arabia in the oil market, I found that many analysts in the oil industry and energy security fields referred to Saudi Arabia as a "swing producer". In

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<sup>9</sup> There is energy interdependence between producers and consumers all being inter-linked - what happens from an energy perspective in one place, can have knock-on implications elsewhere.

<sup>10</sup> Kenny, Niamh. 2011. "Energy Fundamentals: Understanding the oil & Gas Industries". Energy Intelligence Research

<sup>11</sup> AlYousef, Nourah A. (2012) "The dominant Role of Saudi Arabia in the oil Market from 1997-2010", Energy and Economic Development, Vol. 36, 2, in press.

previous literature, this role's definition, expected behavior and boundary conditions are unclear. In addition, definitions of this role are unsupported by historical evidence. This lack of information piqued my interest into researching why Saudi Arabia acts as a swing producer and investigating reasons the U.S. can expect a shift in oil policy.

The empirics section first defines the characteristics and actions required to qualify as a swing producer. Saudi Arabia's production capabilities compared against the swing producer definition highlights its unique fit for the role. The security benefits this role provides Saudi Arabia and the U.S. are highlighted. The two allies face many threats from common enemies; the swing producer role fits in the strategic mitigation. If the swing production role provides Saudi Arabia and the U.S. with security benefits, then it is important to analyze the security threats and implications if Saudi Arabia loses its swing producer status.

### **1.3 LITERATURE REVIEW**

While there is a vast amount of literature on Saudi Arabia's oil supply and energy security, it does not assess the country's importance to U.S. geopolitical security by acting as a swing producer in the oil market. Energy security literature is the overarching subject to place this research under the proper overall framework and describe the main theoretical approaches to energy security in international relations (IR). The first part of this review will examine which theory of IR is best suited for the analysis of energy resources in IR. The second part of this review will examine literature that aims to explain Saudi Arabia's role as a swing producer in the global oil market. This will set the stage for the empirics and analysis section to tie how Saudi Arabia's role as a swing producer impacts U.S. energy security and ultimately national security.

Since the oil shocks of the 1970s, energy security became integral for international relations theories. Energy security differs from each State based on unique needs and status as an exporter or importer. For exporting countries, it means continuous access to international

energy markets for the sale of energy resources. Meanwhile for importing countries, it means the assured access to a continuous supply of energy at affordable prices in order to maintain economic growth and social progress. The secure supply of energy means protecting against disruptions including hedging against price volatility.

Energy security is important to economic security because it guarantees the availability of energy supplies in a sustainable and timely manner at a price range that does not adversely impact the economy. Energy security requires the cooperation and coordination among states to maintain a constant supply of energy for economic development. Energy security is an integrated system trying to ensure the availability and reliability of energy resources.

International relations theories related to energy security are somewhat of a controversial topic. Dannreuther (2010) argues that despite the importance of energy in international relations, there are limited direct applications of IR theories to understanding energy-related conflicts<sup>12</sup>. Today, there are few energy-related articles found in international security journals<sup>13</sup>, and the ones found cover policy-related issues, not IR theory. The scarcity of theoretical background is because energy security only recently became part of IR, making conducting research on energy security topics more challenging.

Some scholars stick to the traditional IR theories to explain the energy security framework. Belyi (2007) lists four approaches of energy security in IR theories – realism, liberalism, free trade, and balance of power<sup>14</sup>. The realist approach is shaped by structural imbalances between energy producing and consuming regions and emphasizes the political

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<sup>12</sup> Dannreuther, Roland. "International relations theories: Energy, minerals and conflict." *Polinares* 8 (2010): 1-24.

<sup>13</sup> *Ibid.*

<sup>14</sup> Belyi, Andrei V. "Energy security in international relations (IR) theories." *Cathedra on political issues of international energy*. Higher School of Economics (2007).

conflicts in connection to natural resources. On the other hand, liberalism theory believes cooperation is possible through building institutions and that economic ties strengthen peace. Free trade movement of goods and resources allows market forces to control the market. Liberalism highlights the efficiency of international economic institutions on enhancing energy security, such as creating the International Energy Agency (IEA).

The underlying theoretical assumptions of realism and liberalism theories applied to Saudi Arabia's role as a swing producer can add to the understanding of implications on U.S. national security. In realism, each country acts in its own self-interest in order to maximize its own survival and driven by accumulating as much power as possible. Another relevant assumption realists make is that the distribution of resources between similar countries determines the balance of power between them. States in this system balance against the rising powers and growing threats.

The balance of power theory explains that states can choose to balance by allocating more resources internally to economic and military security or forming alliances with states with similar interests, including similar enemies. A power balance exists between energy producing and consuming States. This paper will focus on the balance of power between the U.S. and Saudi Arabia through the swing production definition.

Other scholars agree that while there is a growing interest in energy security and the impact of energy resources on IR, it lacks solid theoretical background in research<sup>15</sup>. Cesnakas (2010) supports this further as energy security was previously not identified or analyzed in IR.

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<sup>15</sup> Česnakas, Giedrius. "Energy Resources in Foreign Policy: A Theoretical Approach." *Baltic journal of law & politics* 3, no. 1 (2010): 30-52.

Issues that emerged from energy resources were included in other elements of national security, mainly military security that is dominated by the realism paradigm.

Cherp and Jewell (2011) depart from the traditional IR theories and suggest three distinct perspectives on energy security have emerged: the 'sovereignty' perspective with its roots in political science; the 'robustness' perspective with its roots in natural science and engineering; and the 'resilience' perspective with its roots in economics and complex systems analysis<sup>16</sup>. The authors conclude that since today's energy security challenges are complex and entangled, they must be analyzed using all three perspectives.

Despite the lack of theoretical background in energy security, realism paradigm theories are a useful methodology in the studies of energy resources in foreign policy due to the fact that energy resources are material objects. Realism suggests that energy resources are power elements included in states' foreign policy when they seek to expand influence abroad. Understanding the principles behind swing production policies is necessary before it can be determined if they have an impact on U.S. energy security. There isn't vast academic research that pinpoints the definition of a swing producer or its impact on the U.S. security framework, with some academic papers occasionally mentioning the term as a byproduct of other Saudi-related analysis.

Bahgat (2003) describes why Saudi Arabia's oil market conditions allow it to be a swing producer<sup>17</sup>. One of the key characteristics of Saudi Arabia's swing producer status is excess capacity. Excess capacity allows Saudi Arabia to keep several MBD of idle capacity on hand for

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<sup>16</sup> Cherp, Aleh, and Jessica Jewell. "The three perspectives on energy security: intellectual history, disciplinary roots and the potential for integration." *Current Opinion in Environmental Sustainability* 3, no. 4 (2011): 202-212.

<sup>17</sup> Bahgat, Gawdat. "The New Geopolitics of Oil: The United States, Saudi Arabia, and Russia." *Orbis* 47, no. 3 (Summer2003 2003): 447-461.

emergencies in the global oil market. The government policy of Saudi Arabia seeks to act as a swing producer within OPEC by maintaining 1.5-2 MBD of spare capacity as a cushion<sup>18</sup>. Access capacity is not the only condition that defines the term swing producer.

An additional characteristic highlighted by Maugeri (2012) is in times when the oil supply is short due to a global crisis, a swing producer has the capability and willingness to step in to increase production in less than 30 days and sustain that production for 90 days<sup>19</sup>. This definition not only discusses physical capability like the previous definitions, but also adds a time variable defined over a finite period, and a willingness variable, which is highly subjective.

Maugeri (2012) does not explain what determines Saudi Arabia's willingness to stabilize oil markets using swing production. Does willingness have a relationship with policy decisions that have a direct impact on Saudi Arabian and U.S. interests? At times, the tradeoff could mean balancing their interests versus that of friendly consumer nations who will be negatively affected if it does not execute its capability. Maugeri does not expand on the willingness part of the definition in relation to Saudi Arabia's oil policy and the consequences if it shifts away from swing production behavior.

Other literature aims to understand Saudi Arabia's oil policy but fails to compare it to historical and recent production behavior. Pierce (2012) analyzes the process of how the government of Saudi Arabia determines oil policy<sup>20</sup>. The government applies both economic and political considerations to determine how much oil to produce, but when describing the policy of excess capacity, Pierce states the 2 MBD of excess capacity is underutilized for pumping

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<sup>18</sup> Saudi Arabia Oil & Gas Report. (2013), Business Monitor International Ltd. page 30

<sup>19</sup> Maugeri, Leonardo. "Oil: The Next Revolution." Discussion Paper 2012-10, Belfer Center for Science and International Affairs, Harvard Kennedy School, June 2012.

<sup>20</sup> Pierce, Jonathan J. 2012. "Oil and the House of Saud: Analysis of Saudi Arabian Oil Policy." DOMES: Digest Of Middle East Studies 21, no. 1: 89-107.

more oil during surges in demand or supply interruptions. This is an economic consideration, but there are also political explanations found in other literature. For example, Pierce (2012) concludes that oil production in Saudi Arabia is a function of Saudi Arabia's estimates of how its oil reserves may provide long-term revenue and political stability at the risk of short-term economic gains. Pierce provides further in-depth understanding and analysis of Saudi Arabia's policy, but he does not tie it to the swing producer definition.

The literature reviewed does not reveal what geopolitical factors causes shift in swing production policy. There are disagreements between scholars on the connection between oil and international political relationships<sup>21</sup>. Some argue that consuming states tend to adjust their behavior in ways that are favorable to suppliers. For example, some assert that the U.S. modifies its behavior toward Saudi Arabia; examples include tolerance for democracy, human rights, and corruption. A group of scholars argues that the U.S. makes these concessions despite the low volume of oil actually shipped between the two countries because of the central Saudi position in oil markets. Other scholars question whether there is any strong empirical evidence for that assertion<sup>22</sup>.

#### **1.4 METHODOLOGY**

This paper uses a case study methodology to examine Saudi Arabia's oil policy within the context of its swing producer role, comparing it to when it abandons that role, with the aim of understanding the cause from a U.S. energy security perspective. The geopolitical reasons why Saudi Arabia abandons its role is the independent variable is evaluated against the actual production decisions (dependent variable). The production decisions are then compared the supply and demand conditions of the market. If Saudi Arabia is behaving normally within a

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<sup>21</sup> Levi, MA, 2010. "Working Paper: Energy Security- An Agenda for Research" Council on Foreign Relations. Pp 5.

<sup>22</sup> Ibid

balanced market, then it meets the role of swing producer. If there are disruption and Saudi Arabia increases output, then it meets the definition. In addition, if there is an oversupply and Saudi Arabia reduces production then it meets the definition. If any of these conditions are present and Saudi Arabia acts opposite, then the assumption is that an explanation outside of the global oil market economics is the reason.

The aim is to determine the importance of U.S. interest to Saudi Arabia when it makes the decision to play swing producer or not. The empirical section will help reach a reasonable conclusion to answer this research questions. Oil market supply verses demand trends is the baseline for normal behavior. Saudi Arabia's production decisions are expected to keep a balance in oil market supply and demand because it's in its best interests to avoid shocks that spike prices or reduce demand. However, I predict there are other factors that cause them to move away from maximizing economic benefit in place of geopolitical security.

Oil prices depend on supply and demand because of geopolitical factors, determining the geopolitical factors that cause a shift in stated policy and historic behavior is a goal of this study. Examining geopolitical events that caused oil disruption versus the production decisions can explain which factors impact Saudi Arabia's swing production policy. Saudi Arabia's stated policy provided in the literature review compared against actual production decisions should reveal variables that could have caused the abnormal decisions. This analysis will help uncover if there are ulterior motives or factors that can predict how Saudi Arabia will react in the future and how it impacts U.S. national security. I suspect irrational behavior that breaks the swing producer model has geopolitical explanations based on foreign policy factors.



## 1.5 EMPIRICS

### 1.5.1 DEFINITION OF A SWING PRODUCER

There are two types of oil producers in the world: those who have the will and the means to affect market prices, and those who react to them<sup>23</sup>. A swing producer falls into the category of the former. A swing producer must meet the following criteria<sup>24</sup>:

- They must be a net exporter of oil, with enough daily production, spare capacity and reserves to influence market prices by balancing supply and demand through increasing or decreasing output.
- They must be able to act authoritatively and quickly to increase or decrease oil output.
- They must have low production costs and the financial reserves to withstand reduced cash flow when restricting or increasing oil supply, necessary to balance the market.

Saudi Arabia's oil reserves are special for the following reasons: the massive volume available, the onshore location near deep water, the size and geology of the fields, and the geographical location of Saudi Arabia between Western and Eastern markets. This makes Saudi Arabia oil among the most desirable and cheapest in the world.

What gives Saudi Arabia's policymakers the capability to influence the oil market is the monstrous size of their crude oil production and refinement facilities. By maintaining a cushion of spare production capacity, Saudi Arabia accepts taking a loss to support oil market stabilization. Having the ability to manipulate oil prices to help or hurt a regional rival is a powerful tool.

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<sup>23</sup> Berman, Arthur, "Why The U.S. Can't Be Called A 'Swing Producer'." Oilprice.com, January 2016. <http://oilprice.com/Energy/Crude-Oil/Why-The-U.S.-Cant-Be-Called-A-Swing-Producer.html>

<sup>24</sup> Ibid.

### **1.5.2 THE GEOPOLITICAL BENEFITS OF SWING PRODUCTION**

Saudi Arabia has a deliberate policy of maintaining prices at moderate levels and preventing excessive high prices because it serves their medium and long-term national interests. The benefits of being a swing producer include allowing Saudi Arabia to stabilize oil market prices, offset supply shortages, support domestic and foreign policy, and support U.S. foreign and security policy. With all these potential benefits to Saudi Arabia and its allies including the U.S., the upside is they are a threat if Saudi Arabia ceases to be a swing producer.

One of the biggest global threats if Saudi Arabia ceases to be a swing producer is oil price volatility. In their research paper titled "Effects of oil price shocks on industrial production: evidence from some oil-exporting countries"<sup>25</sup>. Oil supply shortages and skyrocketing prices lead to the development of alternative or competing energy sources, which would undermine the importance of petroleum. Since petroleum is Saudi Arabia's main resource of power, it is in the country's interest to protect it.

There are also regional rivals to contend with where oil becomes a key tool. In Iran, oil revenue streams finance domestic investment and fuel consumption booms and improve public welfare, which means cutting off these streams can hurt the country. The Iranian economy is heavily dependent on oil revenues. Saudi Arabia is breaking their policy of oversupplying the market at a marginal loss, not only make up for Iranian oil, but also use oil as an offensive weapon to take Iran's market share and revenue. This has served U.S. interests in containing Iran. If, therefore, the implication to U.S. national security is if Saudi Arabia stops acting as a swing producer to counter Iran's regional ambitions, U.S. influence is marginalized.

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<sup>25</sup> Mehrara, Mohsen, and Mehdi Sarem. "Effects of oil price shocks on industrial production: evidence from some oil-exporting countries." *OPEC Energy Review* 33, no. 3/4 (September 2009): 170-183.



**Figure 1: Disruptions and losses to global oil supplies, 1956-2011<sup>26</sup>**

Figure 1 shows the events that led to the major global oil supply disruptions and losses in MBD between 1956 and 2011. The first data point of interest in Figure 1 is the Arab oil embargo in 1973. 4.3 MBD were lost in the volatile global oil market, causing massive panic and huge price shocks. Had the U.S. been a swing producer with significant excess production capacity, the Arab oil embargo would have been unsuccessful. The ensuing price hikes led Saudi Arabia to build significant production capacity that it believed would allow it to take advantage of rising global oil demand<sup>27</sup>.

Saudi Arabia inadvertently became the world's swing producer when demand subsided in the early 1980s and the kingdom was stuck with substantial excess capacity. A new tool was available to confront the next major disruption in the oil market – the 1979 Iranian revolution. A

<sup>26</sup> International Energy Agency, "IEA Response System for Oil Supply Emergencies," 2012 Edition, 2012.

<sup>27</sup> Cobb, Kurt, "U.S. Shale A Marginal, Not Swing Producer." Oilprice.com. <http://oilprice.com/Energy/General/U.S.-Shale-A-Marginal-Not-Swing-Producer.html> (accessed July 30, 2016)

price shock occurred following the Iranian Revolution which shutdown Iran's production and brought on a second price shock that doubled the price of oil from 1979-80<sup>28</sup>. This second shock caused Saudi Arabia to interfere by increasing their exports, which partially offset this loss, bringing them to the forefront of a unique role within OPEC and the world oil market.

The outbreak of the Iran-Iraq war in 1980 was the next major disruption to the oil market. Oil production in Iran nearly stopped and Iraq's oil production decreased dramatically. Consequently, economic recessions resulted in the U.S. and other major economies. Saudi Arabia led the charge along with other OPEC countries to offset most of the decline resulting in only 4 percent decline in worldwide oil production<sup>29</sup>. The war shutdown a combined total of 6 MBD of production. This prompted Saudi Arabia to maintain its export capacity at 10 MBD through 1981, representing 50% of OPEC's exports. This was the first significant time Saudi Arabia used its oil to positively impact the market.

In 1985, Saudi Arabia cut oil exports 70% from their 1981 level to absorb global demand reduction. After suffering significant revenue loss, Saudi Arabia abandoned the OPEC price-setting, export-restricting strategy, and doubled their export levels<sup>30</sup>. This sudden increase in oil supply backfired and caused global oil prices to fall sharply.

After regrouping in the mid to late eighties, OPEC decided to adopt production quotas to gradually increase exports and recover market share. The Iraqi invasion of Kuwait in August 1990 interrupted this recovery, as both countries stopped exports. Once again Saudi Arabia responded by doubling their exports within 6 months.

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<sup>28</sup> Alkhatlan, K and Gately, D. and Javid, M. (2012), Analysis of Saudi Arabia's Behavior within OPEC and the World Oil Market, 5

<sup>29</sup> "Oil Squeeze". Time. 1979-02-05. Archived from the original on 7 March 2008. Retrieved 27 January 2008.

<sup>30</sup> Ibid.

The Iraqi invasion of Kuwait became the next major disruption. The disruption of oil supplies from these two countries caused a sudden oil price shock<sup>31</sup>. Nearly all of Kuwait and Iraq's oil production was taken offline immediately following the invasion. The peak lost production of about 4.3 MBD of combined Iraqi and Kuwaiti crude oil tested markets. Once again, Saudi Arabia responded by doubling their exports within 6 months<sup>32</sup>. Since then, Saudi Arabia maintained those export levels for nearly a decade until the 1998 Asian Financial Crisis, when export levels adjusted in response to weakened market demand due to the global recession. The excess of supply over demand in the oil markets due to the Asian crisis caused a sharp decline in price during 1998<sup>33</sup>.

In 2001, Iraq suspended its oil production in an attempt to put pressure on the U.N. sanctions against the country<sup>34</sup>. Iraq was under U.N. sanction since 1996 and could only ship crude oil to buy basic goods. By halting exports, Iraq wiped more than two MBD off of world markets. A day after the announcement, Saudi Arabia's Oil Minister Ali al-Naimi gave his public reassurance that there would be no shortage in the market<sup>35</sup>.

The 2002 Venezuelan strike disrupted two-thirds of Venezuela's 3 MBD production. The strike resulted in an increase in the world price of oil and affected the U.S. more than most other nations<sup>36</sup>. The U.S. at the time received more than half of Venezuela's crude and product

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<sup>31</sup> Energy Information Administration. "Effects of crude oil supply disruptions: how long can they last?" March 2011. <http://www.eia.gov/todayinenergy/detail.cfm?id=730>

<sup>32</sup> Dargay, Joyce M., and Dermot Gately, 2010. "World oil demand's shift toward faster growing and less price-responsive products and regions", *Energy Policy*, 38, 6261-6277.

<sup>33</sup> Ibrahim Dincer and Bandar Al-Rashed, "Energy analysis of Saudi Arabia", *International Journal Of Energy Research*, 2002; 26:263

<sup>34</sup> Agence France-Presse. "Iraq oil exports suspended for one month: junior minister." June 2001

<sup>35</sup> n.d. "OPEC to fill gap in Iraqi oil exports." A04. EBSCOhost (accessed July 30, 2016).

<sup>36</sup> Shore, Joanne & John Hackworth, "Impacts of the Venezuelan Crude Oil Production Loss." EIA, 2003.

exports and replacing the lost volume was difficult<sup>37</sup>. Saudi Arabia had crude oil quality similar to Venezuela and increased production following the strike to offset Venezuelan losses<sup>38</sup>.

The Iraq War in 2003 was a significant event for oil markets because Iraq contains a large amount of global oil reserves, with proven oil reserves of 112 billion barrels, ranking it second in the world behind Saudi Arabia. Oil prices increased because the conflict coincided with an increase in global oil demand<sup>39</sup>. At that time of war, the U.S. was importing 60% of its total oil imports<sup>40</sup>. The U.S. pressed Saudi Arabia to produce more oil, a request that was answered by producing at capacity<sup>41</sup>.

The destruction to oilrigs off the U.S. Gulf Coast caused by hurricane Katrina in 2005 caused a price spike in gasoline prices. Saudi Arabia responded again by increasing production close to full capacity increasing their daily output by 1.5 MBD<sup>42</sup>. The last dramatic disruption in the oil market came with a price increase with the break out of the Libyan revolution. Saudi Arabia increased its production output to make up for the disruption to Libyan output.

After analyzing the data behind the biggest major disruptions in the past decades, it is clear that Saudi Arabia played a significant role in minimizing oil price shocks. Reducing price volatility is another reason why Saudi Arabia maintains its swing production role. Keeping the oil markets calm is important to price stability. Market economics state that if there is extra

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<sup>37</sup> Ibid.

<sup>38</sup> EIA. "Effects of crude oil supply disruptions: how long can they last?" <http://www.eia.gov/todayinenergy/detail.cfm?id=730> (accessed July 30, 2016)

<sup>39</sup> Collier, Robert (2005-03-20). "Iraq invasion may be remembered as the start of the age of oil scarcity". San Francisco Chronicle. Retrieved 2008-03-20.

<sup>40</sup> Brown, Lester, "Does Saudi Arabia Have the United States Over a Barrel?" The Globalist. April 2004. <http://www.theglobalist.com/does-saudi-arabia-have-the-united-states-over-a-barrel/>

<sup>41</sup> Ibid

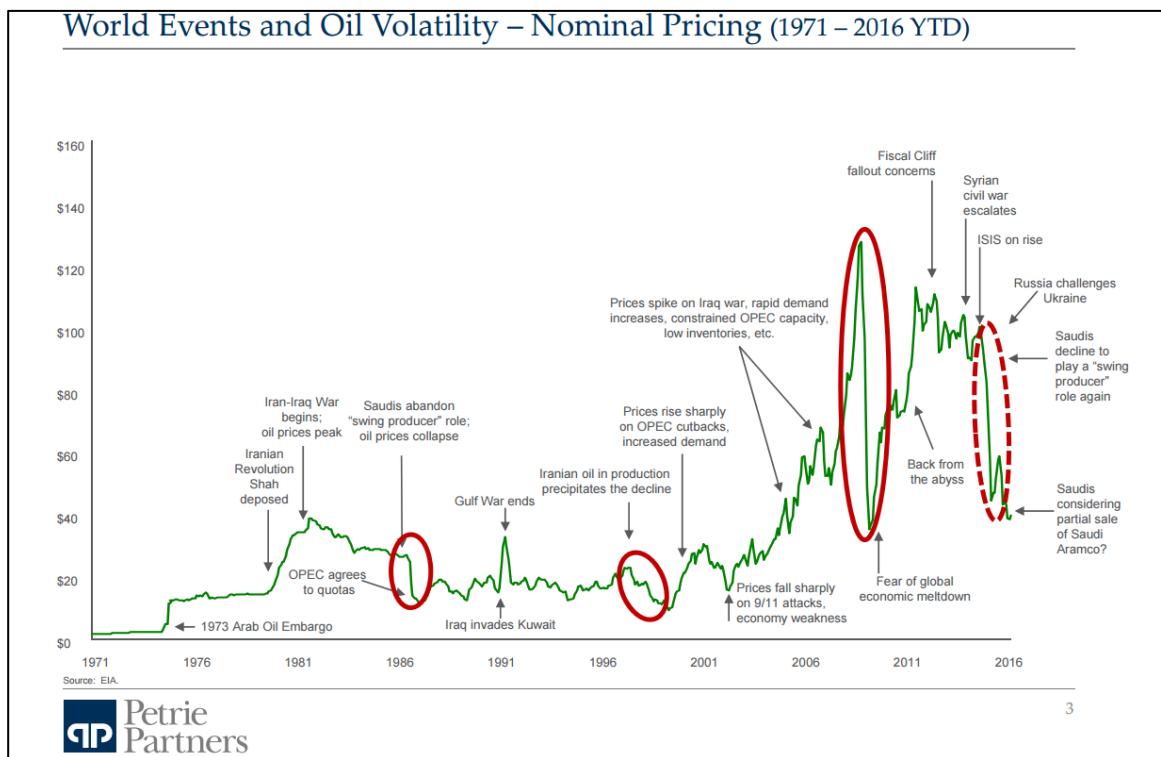
<sup>42</sup> Mouawad, Jad. "Katrina's shock to the system." New York Times 4 (2005).

supply, then price of oil goes down. That hurts Saudi Arabia’s long-term strategy, so they could be selling as much as they can at the highest price possible now.

### 1.5.3 ABANDONING THE SWING PRODUCER ROLE

The examples presented above support Saudi Arabia’s role as the world’s most important oil supplier. The cases analyzed show how the country has held a significant strategic role in the market, but there were times when Saudi Arabia refused to act as a swing producer.

Figure 2 illustrates world events versus pricing and highlights two occasions when Saudi Arabia abandoned this role<sup>43</sup>.



**Figure 2: World Events and Oil Price Volatility**

<sup>43</sup> Petrie, Thomas, “Actions vs. Words in Petroleum Pricing. The Oil & Services Conference. March 2016. <http://www.theoilandservicesconference.com/downloads-2016/Petrie-Partners.pdf>

Figure 2 shows Saudi Arabia abandoned its swing producer role in 1985-86 by producing at full capacity, creating a huge surplus, which caused oil prices to collapse<sup>44</sup>. So rather than meeting the first criteria of the swing producer definition identified in the beginning of the empirics section—a swing producer influences market prices by balancing supply and demand, Saudi Arabia continued increasing output in self-interest rather than global oil market interests. This change in behavior is explained by several historical reasons. OPEC decreased oil production almost in half from 1980 to 1986 in an attempt to artificially maintain oil's high prices.

By 1981, OPEC's production was already surpassed by non-OPEC exporters and its own member nations became divided among themselves about production quotas<sup>45</sup>. Non-OPEC countries gained significant market share at the same time other OPEC countries began cheating on their production quota. Saudi Arabia decided to increase production at full capacity to reclaim market share in self-interest. In 1985, instead of keeping the market balanced as a swing producer, Saudi Arabia increased production and caused downward pressure on prices. Despite the market demand, Saudi Arabia fought to protect its market share by making competitors' high-cost oil production facilities less profitable and in certain times even unprofitable<sup>46</sup>.

#### **1.5.4 THE THREAT FROM U.S. SHALE OIL**

The second time Saudi Arabia abandoned its swing producer role occurred in 2014 and is still ongoing at the time of this research. Leading up to 2014, U.S. oil production began dramatically increasing since 2009 due to shale oil<sup>47</sup>. Advances in drilling and extraction

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<sup>44</sup> Ibid

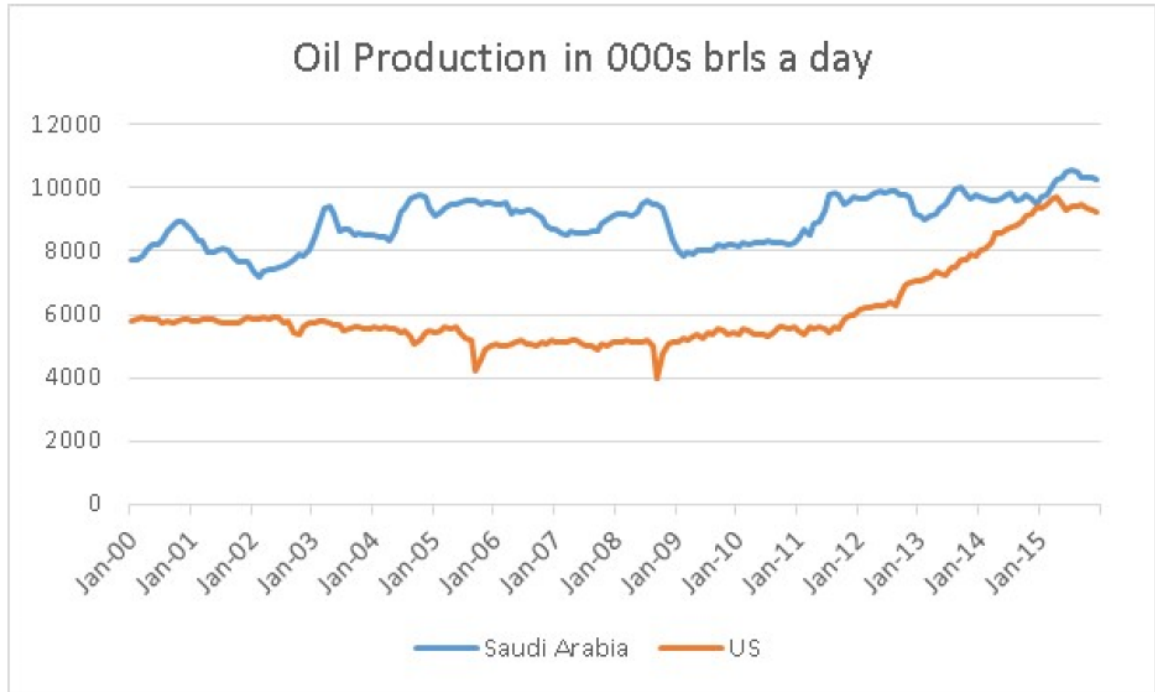
<sup>45</sup> Andersen, Fredrik, "Global Oil Markets and Hedging: Are Trends Your Friend?" The Oil and Services Conference, March 2016. <http://www.theoilandservicesconference.com/downloads-2016/DNB-Bank.pdf>

<sup>46</sup> Ibid

<sup>47</sup> Perry, Mark, "Chart of the day: U.S. oil output increased to a 44-year high in April, just slightly below November 1970 peak." The American Enterprise Institute, June 2015. <https://www.aei.org/publication/chart-of-the-day-us-oil-output-increased-to-a-44-year-high-in-april/>



technologies led to the emergence of the U.S. as one of the world’s largest producers of oil. To illustrate this global oil market change, Figure 3 shows U.S. oil production versus Saudi Arabia since 2000<sup>48</sup>.



**Figure 3: Oil Production - US Versus Saudi Arabia**

At the end of 2014, the U.S. almost produced as much oil as Saudi Arabia, up 70% since 2008<sup>49</sup>. The increases in the U.S. supply resulting from high shale oil production added to a worldwide surplus<sup>50</sup>. In June 2014, oil prices dropped by a third as the U.S. continued to pump and global demand decreased. Saudi Oil Minister al-Naimi blocked appeals from poorer OPEC

<sup>48</sup> Clark, Russel, “Is Saudi Arabia Still The Swing Producer?” Horseman Capital Management, March 2016. <https://www.horsemancapital.com/marketviews/russell-clark/2016/03/is-saudi-arabia-still-the-swing-producer>

<sup>49</sup> Jonathan Fahey (October 31, 2014). "Gas almost under \$3 nationwide: What to know". News & Observer. Associated Press.

<sup>50</sup> Grant Smith (October 16, 2014). "WTI Crude Falls Below \$80 for First Time Since June 2012". Bloomberg Businessweek.

members for production cuts<sup>51</sup>. Although the U.S. energy requirements are domestically secured, forcing Saudi Arabia to abandon its role as a swing producer puts it at risk of suffering the repercussions of oil shocks in case of a major oil disruption. A swing producer must be a low-cost producer. The U.S. fails to meet this definition because the cost of producing most tight oil is around \$80 per barrel<sup>52</sup>. Saudi Arabia's extraction cost is around \$4-\$5 per barrel<sup>53</sup>.

### **1.5.5 IRAN'S RE-ENTRY INTO THE GLOBAL OIL MARKET**

While U.S. oil producers were already putting pressure on Saudi Arabia's market share, a looming threat also began to surface. Iran's compliance with the nuclear agreements in April 2015 resulted in the lifting of U.N. sanctions and the re-entry of Iran's oil to the world market<sup>54</sup>. Saudi Arabia and other Gulf countries believe that Iran is seeking to become the dominant regional power. The nuclear agreement not only provides Iran with billions of dollars of frozen assets, but also enhances Iran's political position<sup>55</sup>.

As Iran resurges, Gulf countries fear this could be the beginning of the U.S. pivoting towards Iran. Saudi Arabia and other Gulf countries will not cut back their own oil production in order to surrender space for Iranian exports into Asia and Europe<sup>56</sup>. How much additional oil the Iranians will or can bring into the market is going to be a critical topic which could spark geopolitical conflict.

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<sup>51</sup> Lawler, Alex; Sheppard, David; El Gamal, Rania (27 November 2014), Saudis block OPEC output cut, sending oil price plunging, Vienna: Reuters, retrieved 10 December 2014

<sup>52</sup> Stafford, James, "The Real Cause Of Low Oil Prices" TheOilPrice.com, January 2015.

<http://oilprice.com/Interviews/The-Real-Cause-Of-Low-Oil-Prices-Interview-With-Arthur-Berman.html>

<sup>53</sup> Mufson, Steven, "How low can oil prices go? Welcome to the oil market's old normal." The Washington Post, January 2015. <http://www.washingtonpost.com/blogs/wonkblog/wp/2015/01/12/how-low-can-oil-prices-go-welcome-to-the-oil-markets-old-normal/>

<sup>54</sup> Yergin, D. (2016, Jan 21). Oil prices are at the mercy of geopolitics. Financial Times Retrieved from <http://search.proquest.com/docview/1766983392?accountid=11752>

<sup>55</sup> Ibid.

<sup>56</sup> Ibid.

### 1.5.6 ECONOMIC IMPLICATIONS

These two cases show that Saudi Arabia abandons its swing producer role by increasing production for the purpose of aggressively seeking to increase market share. Unconventional shale oil may make the U.S. self-sufficient and reduce the price at the pump, but it cannot replace Saudi Arabia as a swing producer. The price of oil may come down because of the increased supply, but when an oil crisis happens, there will not be a swing producer to save the world from price shocks, volatility, and supply shortages. This is supported by evidence presented above of the significant role Saudi Arabia has played over the past 35 years.

Saudi Arabia claims to continue production until it is no longer profitable to produce (i.e. the price to extract oil becomes greater than the worth of the oil extracted), only then will oil production decline<sup>25</sup>. Saudi Arabia claims it will not produce more oil when the marginal cost becomes greater than the marginal benefit, even though they have been breaking that policy by doing so over the past two years. Marginal cost exceeding marginal benefit was reported according to an article written by Arabic international newspaper Asharq al-Awsat in 2013. The article reported that Saudi is enduring two years of production costs of the excess capacity to bring about required balance in the oil market<sup>57</sup>.

The world oil market has been a matter of economic concern since the oil crises of 1973 and 1979. OPEC quadrupled its price in 1973-74, which shocked the oil market and the world economy<sup>58</sup>. This price shock halted the surge in demand for OPEC oil and export quickly fell. This weak oil demand was very harmful to Saudi Arabia and OPEC as a whole. Causing a swing in oil prices the other way was a demand collapse, which was largely due to OPEC's unwise

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<sup>57</sup> Al-Tamale, Faiz . "Experts: Saudi Arabia endured two years of production costs of the excess capacity to bring about the required balance in the oil market." Asharq Al-Awsat Newspaper (English), February 04, 2013.

<sup>58</sup> Alkhathlan, K and Gately, D. and Javid, M. (2012), Analysis of Saudi Arabia's Behavior within OPEC and the World Oil Market, 5

decision to maintain the 1979-80 price doubling, exacerbating a world economic recession, and a shift from oil use in electricity and heating<sup>59</sup>.

Oil price shocks have a negative impact on the U.S. economy because oil makes up 70 percent of U.S. transport fuels and 35 percent of its energy demand<sup>60</sup>. There is an additional risk for the U.S. – there is a negative response of the stock market to oil price shocks when the price of oil rises due to an oil-market demand shock such as an increase in precautionary demand driven by concerns about future crude oil supply shortfalls<sup>61</sup>.

Precautionary demand shocks can account for large declines in stock prices in the wake of major political disturbances in the Middle East<sup>62</sup>. Growing uncertainty about future oil supply can change quickly in response to political events or disturbances in the Middle East. This may trigger an immediate and sharp increase in precautionary demand, which reflects by an immediate jump in the real price of oil as well as an immediate drop in stock prices<sup>63</sup>.

Price shocks are similarly harmful to Saudi Arabia and negatively impact industrial production<sup>64</sup>. The results indicate a strong causality from oil price shocks to output growth for Saudi Arabia. Since oil revenues account for 90% of Saudi Arabia's export earnings, 80% of state revenues, and 44% of the country's GDP<sup>65</sup>, the kingdom is vulnerable to instability if prices or

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<sup>59</sup>Dargay, Joyce M., and Dermot Gately, 2010. "World oil demand's shift toward faster growing and less price-responsive products and regions", *Energy Policy*, 38, 6261-6277.

<sup>60</sup>Institute for Energy Research, 2012. *Petroleum*. [http://www.instituteforenergyresearch.org/energy-overview/petroleum-oil/#\\_edn1](http://www.instituteforenergyresearch.org/energy-overview/petroleum-oil/#_edn1). (accessed April 19, 2013).

<sup>61</sup>Killian, L. and Park, C., "The Impact Of Oil Price Shocks On The U.S. Stock Market", *International Economic Review*, Vol. 50, No.4, Nov 2009

<sup>62</sup>Ibid.

<sup>63</sup>Ibid.

<sup>64</sup>Mehrara, Mohsen, and Mehdi Sarem. "Effects of oil price shocks on industrial production: evidence from some oil-exporting countries." *OPEC Energy Review* 33, no. 3/4 (September 2009): 170-183.

<sup>65</sup>Saudi Arabia Oil & Gas Report. (2013), Business Monitor International Ltd. page 5

demand becomes volatile. Price shocks and other threats to the oil market management is necessary for the sake of global security.

### **1.5.7 GEOPOLITICAL IMPLICATIONS**

Geopolitical issues are causing Saudi Arabia to sacrifice maximum economic revenue. Claiming that Saudi Arabia is currently balancing the market is false because there is not a current shortage in the market requiring them to tap into the excess capacity. They have been breaking their policy by overproducing by 2 MBD for the last few years<sup>66</sup>. If Saudi Arabia continues to produce oil at a marginal loss, then they have changed their policy. The oil market was already adequately supplied. Global oil spare capacity is probably at about 4 MBD<sup>67</sup>. Only geopolitical and psychological factors can explain the departure of oil prices from economic fundamentals.

Saudi Arabia's Ministry of Petroleum and Mineral Resources (henceforth referred to as the Ministry) is the top decision making organization when it comes to country's oil policy<sup>68</sup>. Keeping final oil production and price decisions with the ruling family (as opposed to the country's state oil company, Aramco) allows Saudi Arabia to factor in political interests in addition to economic ones in its oil policy. The King of Saudi Arabia chairs the Ministry, which includes board members composed of the most influential princes in the royal family. Saudi Arabia's oil policy seeks to stabilize the global oil market by balancing supply and demand with its huge reserves, high production capacity, and spare capacity. One of its key goals is to emphasize global cooperation, peace, and economic development and prosperity<sup>69</sup>.

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<sup>66</sup> Ibid.

<sup>67</sup> Defined as the difference between the world's total oil production capacity that can be reached within 30 days – and sustained for 90 days – and the actual global production.

<sup>68</sup> The Gulf Oil and Gas Sector: Potential and Constraints, (Abu Dhabi: The Emirates Center for Strategic Studies and Research, 2006), 12.

<sup>69</sup> Saudi Arabia Mineral & Mining Sector Investment and Business Guide. s.l: International Business Publications, 2012. p138

The geopolitics of energy seen from a realism perspective using the use case of Saudi Arabia's swing production role shows how state actors through the choices they make with respect to their resource endowment use and leverage it for power as actors. Saudi Arabia's position in the global oil market continues to be the country's primary geo-economic tool, linked closely with the significant financial capital, which it uses for geopolitical influence.

Realism theory tells us that Saudi Arabia will put its security interests above all others, even if it means they come at odds with the U.S. or if the global oil demand. Saudi Arabia needs more revenue to support their domestic policies or foreign affairs, if they would produce more oil, possibly negatively impacting OPEC's interests.

The Ministry has not commented on whether it will or will not use oil to influence geopolitical and regional outcomes. Despite tense Iran-Saudi Arabia relations and the kingdom's strategic alliance with the U.S. against Iran, the Ministry does not publicly mention using swing production to support U.S. policy against Iran at the sacrifice of economic benefit and harm to the global market.

Saudi Arabia balances conflicting interests between consuming and producing countries. Demand for cheap oil and the need for producing countries to accrue oil export revenue is a constant struggle. This balancing act leads to an internal tension between medium- and long-term interests but can tip a certain way due to geopolitical factors. Saudi Arabia's geopolitical power is derived from its position in the world oil market and the role of oil on the nation's economy<sup>23</sup>.

Saudi Arabia helps counter OPEC's geopolitical influence. Saudi Arabia acts like a balancing wheel to absorb fluctuations in supply and demand to maintain a monopoly price for

OPEC members<sup>70</sup>. While this achieves long-term economic benefits for Saudi Arabia, it also gives them leverage to adopt a tit-for-tat strategy<sup>71</sup> allowing it to punish excessive cheating by OPEC members. More importantly, to the U.S., this also keeps members who are joint adversaries (such as Iran and Venezuela) in check so that they can not use oil as a political weapon against the West.

Saudi Arabia made a direct political move in oil production in April 2002 when Iraq cut oil exports to countries that supported Israel and called for an oil boycott<sup>72</sup>. The goal of this move was to put pressure on the West and target the U.S. Saudi Arabia responded by raising oil production to counter the move and blatantly demonstrate to OPEC countries that oil was not to be used as a political weapon<sup>73</sup>.

## **1.6 CONCLUSION**

Saudi Arabia uses its swing production role as an instrument of state power to maintain its position in the international geopolitical system and strengthen its balance of power and relationship with the U.S. In the absence of geopolitical risks, Saudi Arabia's policy exercises discipline in raising and lowering production to moderate price declines and spikes. Saudi Arabia maintains its strategic importance to the U.S. by intervening in the oil market to ensure moderate prices for the world economy. However, this strategic role must balance Saudi Arabia's other key objectives of keeping a large market share, counter geopolitical rivals, and keeping prices high enough for OPEC countries not to cheat their production quotas.

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<sup>70</sup> Griffin, J. and Teece, M. (1982), *OPEC Behavior and World Oil Prices*, London: George Allen and Unwin.

<sup>71</sup> Griffin, J. M. & W. S. Neilson "The 1985-86 oil price collapse and afterward." *Economic Inquiry*, 32(4), (1994).pp. 543-61.

<sup>72</sup> Pierce, Jonathan J. 2012. "Oil and the House of Saud: Analysis of Saudi Arabian Oil Policy." *DOMES: Digest Of Middle East Studies* 21, no. 1: 89-107.

<sup>73</sup> *Ibid.*

During geopolitical tensions within OPEC, Saudi Arabia uses swing production as a political instrument to punish producers for overproduction by flooding the market with oil. Saudi Arabia also stepped up to offset supply shortages by utilizing its excess capacity during the Iranian Revolution (1979), the Iran-Iraq war (1981), the Gulf war (1991), Operation Iraqi Freedom (2003), and the Libyan revolution (2011). Swing productions has allowed Saudi Arabia to influence OPEC decisions and discipline its members, i.e. project political power. Saudi Arabia used OPEC as a platform for increasing its prestige, protecting its interests, and translating its market power into international economic leverage. Since OPEC has an influential impact on the size and structure of the oil market, Saudi Arabia made the cartel a key channel to implement its policy objectives.

On the other hand, several cases presented previously illustrate the times Saudi Arabia refused to act as a swing producer. Energy security for exporting countries refers to the continuous access to international energy markets for the sale of energy resources. One of the ways to protect continues access is by protecting market share. To protect its influence on the global oil market, Saudi Arabia protected its market share in 1985 against western producers, against the U.S. shale oil boom, and the possible Iranian re-entry into the global oil market.

Geopolitical anxiety relating to a brewing major crisis with Iran explain the departure of oil prices from economic fundamentals in Saudi Arabia's production decisions. If Iran manages to take market share away from the Saudi Arabia, it could facilitate their rise in the region. Saudi Arabia skillfully uses oil as a political tool, sacrificing maximum oil revenue gains to keep domestic control by supporting social welfare programs. Similar to its domestic policy, Saudi Arabia uses swing production as a tool in its foreign policy to counter Iranian interests and influence. Finally, the last reason I suspect deals with the advancement in unconventional oil. What is a bigger threat and thus has a bigger impact on Saudi Arabia's swing production:



domestic consumption, foreign policy and geopolitics against Iraq and Iran, or unconventional oil's impact on Saudi Arabia's future oil revenue?

Saudi Arabia is the only country capable of replacing lost supply for a meaningful period. However, its ability and willingness to act as a Swing producer varied in recent years and the fight for market share and requirement to meet its budget needs are a higher priority than pleasing oil producers and consumers. Despite actions to serve its self-interest, as an important U.S. ally, Saudi Arabia supported U.S. interests by stepping up many times in crises to offset losses and stabilize the global oil market, which the U.S. depends on<sup>74</sup>. The U.S. and Saudi Arabia have historically and continue to share the same regional stability goals. What remains unknown is as the geopolitical dynamics of the Middle East change going forward as the U.S. begins to normalize relations with Iran, can Saudi Arabia still be relied on to promote U.S. interests in the region if it conflicts with its own.

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<sup>74</sup>Al-Naimi, A. (2012). Priority Is Ending Energy Poverty. The Journal of the International Energy Agency Issue 3- Autumn 2012, P7.

## **CHAPTER 2: How Does The Unconventional Shale Oil Revolution Impact Saudi Arabia's Stability?**

### **2.1 INTRODUCTION**

The U.S. shale oil "revolution" has major potential to alter the global oil-market dynamics. Past prediction that the U.S. will surpass Saudi Arabia's production and become the world's oil kingpin by 2015 have not come to fruition<sup>75</sup>. Nevertheless, shale has important implications on current conventional oil-producing countries, and the consequences for Saudi Arabia is investigated in this research. This research is important because the security and stability of major oil-exporting countries is a matter of great global concern due to the possibility of oil disruptions and price shocks. Saudi Arabia's oil production, which is dependent upon the country's stability (and vice versa), is one of the most important actors in the global energy security framework.

Recent technological innovations in hydraulic fracturing allow the recovery of unconventional oil from shale rock, boosting the size of U.S. oil reserves exponentially beyond previous estimates based on established conventional oilfields. Shale energy extraction, once considered economically unviable, experienced a boom due to drilling technology advancements and high oil prices. While the economic benefits might seem obvious, there are significant geopolitical consequences associated with shale oil extraction. The severity of the consequences of the new shale supply will vary for each oil producing exporting country. In the case of Saudi Arabia, this scenario means both economic and political impacts that significantly threaten the country's stability and therefore the entire global energy security framework.

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<sup>75</sup> Fadhil, Muhamad, and James Dennis. "Saudi Arabia eyes more Asia exports." ICIS Chemical Business 285, no. 11 (March 17, 2014): 17.

The revolutions of the 2011 Arab Spring overthrew and replaced long-standing autocratic regimes, but Saudi Arabia remained stable despite facing increasing domestic socio-economic problems, religious tensions, and external threats<sup>76</sup>. Oil played a major part in maintaining that stability. This paper uses a use case method that examines how Saudi Arabian rulers mitigated internal and external destabilization threats, the role oil played on their various sources of power, and the threats posed by the unconventional oil revolution to their evolving security posture.

This research finds that oil is an essential factor in maintaining internal and regional stability and that this source of power and therefore Saudi Arabian stability is under threat due to the unconventional oil revolution. Instability in Saudi Arabia could damage its ability to use spare capacity in the short and long-term to manage supply disruptions, increasing risk to U.S. national security associated with oil price shocks. This research serves to further inform the global energy security field of study by offering additional analysis on to the impact of the shale oil revolution on Saudi Arabia's stability.

## **2.2 BACKGROUND**

The consequences of global oil depletion is a matter of great debate in the academic world and the petroleum industry<sup>77</sup>. Many security experts fear more dire consequences: a worldwide depression would follow the peak in oil production as higher oil prices tends to bring down the world's economy<sup>78</sup>. It's difficult to predict peak oil because there are disagreements over the size of recoverable oil. Determining the specific time global oil peaks and eventually

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<sup>76</sup> Mabon, Simon. "Kingdom in Crisis? The Arab Spring and Instability in Saudi Arabia." *Contemporary Security Policy* 33, no. 3 (2012): 530-553.

<sup>77</sup> Nuclear Energy and the Fossil Fuels, M.K. Hubbert, Presented before the American Petroleum Institute, March 1956.

<sup>78</sup> "Oil, the Dwindling Treasure". *National Geographic*. June 1974.

runs out is difficult because of the uncertainty over the actual size of world oil reserves<sup>79</sup>. It's not a major revelation for security analysts to predict Saudi Arabia would collapse once the oil runs out. However, what if there is an abundance of oil, what would happen to oil prices and how does that impact Saudi Arabia?

Some experts refute the peak oil theory all together, arguing that world crude oil production decline fears are defunct because of the shale oil revolution, with potentially big consequences for oil supplies<sup>80</sup>. Maugeri (2012) affirmed that the world's oil was neither running out nor approaching peak production<sup>81</sup>. Maugeri argues that due to the shale oil revolution, oil supply capacity is growing worldwide at such an unprecedented level that it might outpace consumption. Maugeri argues that if global oil production grows and if oil prices remain at or above \$70 per barrel, there will be a significant dip in oil prices. One possible scenario is that the Shale revolution causes the oil prices to crash, thus taking away Saudi Arabia's ability to maintain regional power externally and buy off dissent internally.

The revolutions of the Arab Spring swept unrest that shook regimes across the Middle East and North Africa. The changes in geopolitical dynamics as result of the Arab Spring made both Saudi Arabia and the U.S. nervous, which was evident by the urgency of the Saudi reaction which included brutal violence and spending hundreds of billions of dollars both domestically and abroad<sup>82</sup>. The threats from the Arab Spring will be more difficult to mitigate because of the shale oil revolution. Saudi officials have downplayed the U.S. shale oil industry and its hefty supply to the market, emphasizing optimistic attitudes towards future growth due to Asian

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<sup>79</sup> Chapman, Ian. "The end of Peak Oil? Why this topic is still relevant despite recent denials". *Energy Policy* 64:93-101. 2014.

<sup>80</sup> Herron, James. "Citigroup Says Peak Oil Is Dead". *The Wall Street Journal*. February 17, 2012.

<sup>81</sup> Maugeri, Leonardo. "Oil: the next revolution." Belfert Center for Science and International Affairs, Harvard Kennedy School, Cambridge (2012).

<sup>82</sup> Jones, Toby Craig. "Saudi Arabia versus the Arab Spring". *Raritan: A Quarterly Review* (2011):50.

demand<sup>83</sup>. Some Saudi princes believe that shale oil is not the immediate threat but that it's necessary to diversify the sources of government revenue<sup>84</sup>.

The shale oil threat became worse for Saudi Arabia when in December 2015, the U.S. passed a bill lifting the 40-year old crude-oil export ban<sup>85</sup>. Prior to this bill, U.S. companies were prohibited from exporting crude oil due to past supply disruption fears<sup>86</sup>. The root cause of the law dates back to the 1973 oil embargo led by Saudi Arabia, when world prices soared and congress responded in attempt to limit U.S. exposure to the global crude market. Today, with the shale oil revolution, the changes to U.S. energy policy to export oil and reap the potential economic and geopolitical benefits which include having more influence in balancing world markets and achieving independence from oil imports<sup>87</sup>.

### **2.3 LITERATURE REVIEW**

This paper aims to research the connection between Saudi Arabia's stability to the shale oil revolution. The literature review will focus on two main areas: Saudi Arabia's sources of stability and the impact of the U.S. unconventional/shale oil revolution on that stability. The security and stability of Saudi Arabia is a popular subject among scholars and political scientists ever since the 1973 oil embargo. After the late 2010 uprisings in the Middle East, scholars have reexamined Saudi Arabia's regime stability in the context of their domestic challenges and regional reaction to the Arab Spring. There is a vast amount of literature discussing Saudi's vulnerability to revolution once the oil wells run out, but minimal focus on the possibility of Saudi Arabia's destabilization due to the shale oil revolution. In fact, few scholars have

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<sup>83</sup> *Saudi Aramco: Master of the kingdom*. Petroleum Economist 80, no. 8 (October 2013): 14.

<sup>84</sup> *Ibid*

<sup>85</sup> "U.S. oil unleashed." Petroleum Economist (February 2016): 10.

<sup>86</sup> Plumer, Brad. "U.S. oil exports have been banned for 40 years. Is it time for that to change?" The Washington Post. 8 January 2014.

<sup>87</sup> Andre, Sam. "Striking Before the Well Goes Dry: Exploring if and How the United States Ban on Crude Oil Exports Should Be Lifted To Exploit the American Oil Boom." Minn. L. Rev. 100 (2015): 763.

produced conclusive evidence on the impact of the shale oil on the global energy market and on oil producing countries in general.

For Saudi Arabia's sources of stability, their reaction to the Arab Spring is the case selected for study. The literature review will examine research that analyzes the sources of power linked to regime stability in the Kingdom, including oil as a major source of power, and a possible weakness. An important part of conducting the literature review is to research previous scholarly work examining the theory that Saudi Arabia is immune from revolution because of oil resource so that can be reexamined in the empirics while taking into account the shale oil revolution.

Saudi Arabia is a rentier state: a state that relies on externally generated revenues (rents) rather than its population's surplus production<sup>88</sup>. Rentierism creates a social contract between state and citizen very different from western-style democracies, which rely on taxation for the appropriation of social resources<sup>89</sup>. In consequence, the population, sacrificing political representation for no taxation, and giving the state full control for the provision of their welfare, makes a trade-off<sup>90</sup>. In Saudi Arabia's case, this social contract is contingent upon the sale of oil for the government to withstand its financial burdens and distribute rents.

The Saudi regime uses the principles of rentierism to provide capital to alleviate dissent in exchange for no taxes and other social support structures. The source of this capital is oil revenue. Bowers (2013) discusses the economic risks of the "resource curse" which refers to the dependence of a rentier state on a limited natural resource that is its primary source of

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<sup>88</sup> Mazawi, André. 2005. "The Academic Profession in a Rentier State: The Professoriate in Saudi Arabia." *Minerva: A Review of Science, Learning & Policy* 43, no. 3: 221-244.

<sup>89</sup> Ibid.

<sup>90</sup> Mabon, Simon. "Kingdom in Crisis? The Arab Spring and Instability in Saudi Arabia." *Contemporary Security Policy* 33, no. 3 (2012): 533.

income<sup>91</sup>. Bowers discusses why the key to buying popular support in Saudi Arabia is through oil wealth and the continuous oil revenues<sup>92</sup>. Bowers concludes that should significant losses of oil revenues occur, Saudi Arabia will become fiscally restrained from transferring funds and benefits to the population and will no longer be able to budget for it in the future<sup>93</sup>.

Seymour (2012) predicts that due to several social, economic, and political problems that plague Saudi Arabia, the end of rentierism will occur in the next few decades<sup>94</sup>. The primary obstacles that Seymour predicts will collapse rentierism are the lack of economic diversification and the extreme dissent from the population including the religious establishment against the ruling family<sup>95</sup>. These same obstacles are analyzed in the empirics with the addition of the amplified pressure brought on by the shale oil revolution.

Stenslie (2012) examines the structure of political power inside Saudi Arabia with the focus on how the regime copes with overcoming internal challenges<sup>96</sup>. Mikstas (2012) also assess Saudi's stability by identifying and examining several sources of its power including claiming political legitimacy, using Islam, and depending on oil revenue economically<sup>97</sup>. Both scholars conclude that despite many destabilizing factors in Saudi Arabia, the flow of oil wealth was the main factor that enables the regime to remain stable for the foreseeable future. The authors don't consider the impact of additional oil market supply or price drops on the

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<sup>91</sup> Bowers, Mandy. "The Rentier Dilemma of Development: A Comparison of Economic Diversification In Saudi Arabia And Abu Dhabi." *Featuring: An interview with Marc Lynch on the ramifications of revolution in the Middle East* 44 (2013): 64.

<sup>92</sup> Ibid.

<sup>93</sup> Ibid.

<sup>94</sup> Seymour, Brianna Brooke. "The death of rentierism in the Kingdom of Saudi Arabia." PhD diss., the University of Utah, 2012.

<sup>95</sup> Ibid.

<sup>96</sup> Stenslie, Stig. *Regime Stability in Saudi Arabia*. Hoboken: Taylor & Francis, 2012.

<sup>97</sup> Mikstas, Alex. "House of Saud, House Of Cards: The Ambiguous Future of Saudi Stability." *Undergraduate Journal of Social Sciences*, March 2012.

government's budget. I predict the resulting limitations on rentierism and instruments of power used domestically and externally to counter threats that could undermine Saudi stability.

Robinson (2012) argues that oil states are vulnerable to instability if there is a sustained interruption of rents<sup>98</sup>. Robinson presents the case of oil-poor Arab countries Tunisia, Egypt and Yemen who underwent regime change in contrast to oil-rich states such as Saudi Arabia, the UAE, Qatar, Kuwait and Oman who have witnessed relatively little turmoil<sup>99</sup>. Mason (2012) analyzes how Saudi uses its oil policy to maintain security and stability<sup>100</sup>. Mason argues that Saudi Arabia needs to maintain sustainable oil supplies to its allies while leveraging its oil reserves against adversaries such as Iran to implement its foreign policy<sup>101</sup>. Mason presents evidence that shows how an increase in oil revenue led Saudi Arabia to a more active foreign policy and the use of its economic power in alliance with the U.S. to limit the strength of its adversaries in the region<sup>102</sup>.

Mason examines various economic weaknesses threatening Saudi Arabia should oil prices fall significantly. Mason found that during the Arab Spring in 2011, oil accounted for 80% of government budget revenues and 90% of export earnings, highlighting the country's survival is dependent on one resource. During that same year, Mason aggregates the total government funds redistributed to Saudis in increased social benefits to be around \$40 billion. The budget surplus from the high oil prices, which averaged over \$110 per barrel, enabled the government to provide the economic package, compelling the population to accept their condition.

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<sup>98</sup> Robinson, Glenn. "Oil States, Rentier States, and the Arab Spring." *New Opportunities for Political Science* (2012): 53.

<sup>99</sup> Ibid.

<sup>100</sup> Mason, Robert. "Economic Factors in Middle East Foreign Policies: the Case of Oil and Gas Exporters with Special Reference to Saudi Arabia and Iran." (2012).

<sup>101</sup> Ibid.

<sup>102</sup> Ibid.



A recurring theme in the literature is how the Saudi regime keeps the internal population stable through a variety of tools resourced by oil revenue. The Arab Spring gave scholars a contemporary case to study and test theories of Saudi Arabia's stability and sources of power. Badreddine (2013) examines the work of academics trying to identify why the Arab Spring did not transpire to the gulf region specifically<sup>103</sup>. In researching the mechanisms Saudi Arabia used to survive the Arab turmoil, Badreddine found that in addition to rentierism, the Saudi regime utilized structural repression and violence against the majority of the society<sup>104</sup>. Oil wealth also allowed the regime to buy off people through a series of spending sprees, which included increased wages for the public sector and welfare initiatives to alleviate poverty and unemployment<sup>105</sup>.

Religion and cultural norms also play a role in maintaining stability. For external influence, Badreddine showed that Saudi Arabia used part of its oil surpluses to fund Islamist groups as a way to increase its importance in regional and international politics<sup>106</sup>. There is additional literature that explains in how Saudi Arabia used revenue to suppress the Arab Spring in other regional countries.

Jones (2011) theorizes that Saudi Arabia is determined to crush the Arab Spring at home and throughout the region<sup>107</sup>. Jones describes actions that Riyadh took to get out in front of the revolutionary movements in Yemen, Syria, Egypt (post Mubarak), Morocco, and Jordan, including detailing hundreds of billion in domestic incentives and regional ally support Saudi used to crush the mounting campaign of public dissent. Jordan theorizes that the wealth from

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<sup>103</sup> Badreddine, Darine. 2013 "What factors allowed Saudi Arabia to survive the Arab Spring turmoil – so far?" University of Westminster.

<sup>104</sup> Ibid. 4

<sup>105</sup> Ibid. 15

<sup>106</sup> Ibid. 19

<sup>107</sup> Jones, Toby Craig. "Saudi Arabia versus the Arab Spring". *Raritan: A Quarterly Review* (2011).

the flow of oil revenue is the source of Saudi Arabia's political influence, but he doesn't speculate on threats to this source of power.

Patrick (2013) discusses the mutual reliance on each other's survival that Saudi Arabia and Jordan share<sup>108</sup>. Both countries share the same strategic threats of containing the regional influence of Iran, countering the Muslim Brotherhood as alternative from of Islamist government, and the destabilizing effects of the Syrian refugee spillover into Jordan. A Saudi gift of \$1 billion in 2011 to Jordan as a tool to elicit policy responses and provide relief. Patrick argues that any dramatic change in Syria will require more funding from Saudi Arabia to Jordan to ensure Jordan's survival. Such gifts to ensure survival or regional allies will be difficult for Saudi Arabia to grant if there is significant damage to oil revenue.

Although shale oil sent shockwaves across the U.S. energy sector and is very popular among investors, there is still considerable discussion surrounding its ability to replace the dependence on conventional oil supplies on a global scale. The energy return on energy invested is worse for all unconventional oil production methods than for conventional oil, so the price of an oil barrel must be very high in order for producers to use expensive fracking procedures to extract the oil, requiring around \$80 a barrel to cover the costs of extraction. There are also environmental concerns related to the fracking process, which pumps a complex mixture of toxic chemicals deep underground under extreme pressure. If shale extraction spreads across the globe, it could potentially poison lakes, streams, and aquifers that local communities depend on.

Aside from the large environmental risks of unconventional oil, some experts just don't believe the hype surrounding its promise. Hughes (2013) makes the argument that the

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<sup>108</sup> Patrick, Neil. "Saudi Arabia and Jordan: Friends in adversity." (2013).

production of shale as and oil in the U.S. is overhyped and the costs are underestimated<sup>109</sup>.

Plumer (2012) argued as long as domestic fields keep declining, total U.S. supply would decline because the shale boom isn't enough to replace it<sup>110</sup>. There are concerns that shale oil fields can't hold up their current production rates. Hughes (2013) examined the life span of shale wells and his research showed that the newest wells aren't as productive as those drilled in the first years of the unconventional oil boom<sup>111</sup>.

The literature reviewed highlights that there is a wealth of research and knowledge on Saudi Arabia's stability and the actions of the regime to contain the Arab Spring. The strategic use of oil wealth is one of the primary factor in keeping the Saudi regime and its allies stable while countering the influence of its regional adversaries. What is lacking in the literature is the extent of the impact the shale oil revolution will have on the Saudi regime cash flows and how a significant reduction in revenue flows impacts the strategic spending on domestic and regional stability efforts.

## **2.4 METHODOLOGY**

This research will use a case study method that will concentrate on the events of the Arab Spring. The period surrounding the Arab Spring is selected because the Saudi regime felt threatened by the events and was determined to crush the uprisings both at home and throughout the region by pursuing the path of counterrevolution. The investigative process will involve the collection of data correlated to Saudi Arabia's stability and U.S. shale oil.

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<sup>109</sup> Hughes, J. David. "Energy: A reality check on the shale revolution." *Nature* 494, no. 7437 (2013): 307-308.

<sup>110</sup> Plumer, Brad. "Has the United States beaten peak oil? Not so Fast." *The Washington Post*. February 2, 2012.

<sup>111</sup> Loder, Asjylyn. "U.S. Shale-Oil Boom May Not Last as Fracking Wells Lack Staying Power". *Bloomberg Businessweek*. October 10, 2013.

The empirics section will examine how the Saudi regime operated differently from the other countries that fell victim to the Arab Spring revolutions and how other factors supported by oil revenue may contribute to that stability. A fundamental question to instigate is how do the Saudis in their approach to counterrevolution strategically use oil? This will include looking at cases where the use of funds to promote stability in response to many of the Arab-state uprisings.

Once the link between oil and stability is established, I will inquire into the consequences of the oil revenue loss resulting from unconventional oil, the breakdowns in the stability status quo that will increase the risk for revolution. To understand the impacts in the empirics section, I will conduct a budget analysis of Saudi Arabia's annual sources of revenues and expenses as they relate to oil and stability.

## **2.5 EMPIRICS**

### **2.5.1 SOURCES OF POWER AND STABILITY**

Saudi Arabia's soft and hard power is based on outmaneuvering political transformation or even calls for it, on preserving a system of political economic privilege in which the ruling class benefits, on high returns on the sale of oil, and on unleashing the forces of radicalism and sectarianism to insure the survival of the kingdom's ruling family<sup>112</sup>. Money from oil export is the common denominator that sources and enables the various internal and external strategies employed by Saudi Arabia's rulers<sup>113</sup>.

### **2.5.2 OIL REVENUE**

Since its discovery, oil has been at the heart of Saudi power and influence. The oil wealth helps shape social, economic, and political relations, which are dominated by the

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<sup>112</sup> Jones, Toby Craig. "Saudi Arabia versus the Arab Spring". *Raritan: A Quarterly Review* (2011):44.

<sup>113</sup> Mabon, Simon. "Kingdom in Crisis? The Arab Spring and Instability in Saudi Arabia." *Contemporary Security Policy* 33, no. 3 (2012): 536.

regime<sup>114</sup>. Oil wealth is passed along in a numerous social welfare programs that include free education, free health care, sweeping employment support, subsidies for industry and business, and even the provision of copious amounts of water<sup>115</sup>. Water is particularly important considering Saudi Arabia is one of the most arid places in the world. The ability to sustain the privilege and the social and political relations enabled by oil wealth is dependent on the ability to generate high revenues from oil<sup>116</sup>. High oil prices are necessary to sustain the domestic political system and the patronage that fuels it, as well as the kingdom's hegemony in the region.

Oil prices fell because of unconventional oil supply, making it more expensive for Saudi Arabia to use funds to leverage the same level of power. Buying power and influence requires a steady and profitable source of revenue, a source that is diminishing as oil prices fall. While oil is the second most abundant liquid on the planet after water, Saudi Arabia used it as an engine of wealth by carefully keeping production limited. Saudi Arabia and other OPEC countries will not be able to continue manufacturing this scarcity once an excess supply of oil is available on the market because of shale oil.

Oil wealth is also used by Saudi Arabia to cultivate layers of foreign investment and support<sup>117</sup>. The American military complex in particular has benefited from bigger oil prices<sup>118</sup>. The Saudi regime has regularly spent upward of ten percent of its annual oil revenues, often over \$10 billion a year, in the acquisition of arms and munitions<sup>119</sup>. These arms are usually not used in regional conflict (with the exception of Yemen), but rather in the oppression of domestic

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<sup>114</sup> Jones, Toby Craig. "Saudi Arabia Versus The Arab Spring". *Raritan: A Quarterly Review* (2011):45.

<sup>115</sup> *Ibid.*

<sup>116</sup> *Ibid.*46.

<sup>117</sup> Jones, Toby Craig. "Saudi Arabia versus the Arab Spring". *Raritan: A Quarterly Review* (2011):49.

<sup>118</sup> *Ibid.*

<sup>119</sup> *Ibid.*

opposition<sup>120</sup>. American energy independence as a result of unconventional oil will therefore hurt the domestic security forces; the kingdom's counterrevolutionary authorities that have benefited by the American-Saudi military relationship.<sup>121</sup>

### **2.5.3 RELIGIOUS INFLUENCE**

With the fall of the Tunisian and Egyptian regimes, and with unrest breaking out on their borders in Bahrain and Yemen in February of 2011, the Saudi regime began to feel threatened. When calls for public dissent began to mount in Saudi Arabia, the regime began to undertake counterrevolutionary measures. Saudi Arabia's leaders sought support from the religious establishment, which met their call by declaring public protests un-Islamic. The clergy was rewarded for their support with a \$120 billion financial package to include funding for more mosques, religious schools, and religious police<sup>122</sup>. Also in their interest, the regime amended an already strict press law criminalizing criticism the royal family to include the official religious establishment<sup>123</sup>.

The religious police (previously had its role eroded), was re-empowered and began streaming into the streets, radio, and television to counter calls for reform<sup>124</sup>. The religious establishment launched a malicious counterrevolutionary campaign of their own which demonized democracy and its supporters<sup>125</sup>. In the first few months of 2011, Saudi Arabian rulers limited the potential power of protest movements by unleashed the forces of religious zealots, who share the Saudis' abiding investment in preserving the political status quo and in preventing the realization of democratic transformation<sup>126</sup>. In March 2011, prominent members

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<sup>120</sup> Ibid.

<sup>121</sup> Ibid.

<sup>122</sup> Jones, Toby Craig. "Saudi Arabia versus the Arab Spring". *Raritan: A Quarterly Review* (2011):52.

<sup>123</sup> *ibid*

<sup>124</sup> Ibid.

<sup>125</sup> Ibid.

<sup>126</sup> Ibid.

of the clergy officially denounced public dissent as un-Islamic because protests would lead to sedition and threatens unity of the Muslim community<sup>127</sup>. By forging a religious-political alliance, the official religious establishment has derived great advantages from the Saudi regime<sup>128</sup>. For now, oil revenues allowed the regime to provide a financial package to the religious establishment to keep them focused on the citizens, and turn a blind eye towards the ruling regime.

#### **2.5.4 RESPONSE TO INTERNAL POLITICAL THREATS**

De-politicization and disenfranchisement of Saudi Arabian citizens' fuels dissent. The country has a closed political system with al-Saud rulers sitting on top. Saudi citizens enjoy few political rights and exert little influence in domestic and foreign affairs. To make up for the small base for their power and avoid the possibility of resistance because of political marginalization, the ruling elites have historically redistributed oil wealth as a way to assimilate potential dissidents. The Saudi regime's contract provides benefits for its citizens in exchange for their obligatory concession is showing signs of strain.

There are significant economic disparities, public services are inadequate and desperately needed infrastructure projects are without exception always delayed due to budget deficits and corruption<sup>129</sup>. Saudi Arabia's population is young and suffers from unemployment problems: two-thirds of the population is under 30 of which at least 30% is unemployed<sup>130</sup>. Disgruntlement became visible during the 2011-2012 protests when thoughts of Saudis took to

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<sup>127</sup> Ibid.

<sup>128</sup> Ibid.

<sup>129</sup> Soage Antepazo, Ana Belén. Saudi Arabia: A Regional Power Facing Increasing Challenges. Instituto Espanol de Estudios Estrategicos, December 2015.

<sup>130</sup> Ibid.

the streets demanding political liberalization and an end to corruption and programs to tackle unemployment.

The rentierism social contract appears to be eroding as the calls for political reform become more clamorous. The calls for political reform include increasing political representation and greater political accountability. The calls for political reform are tensions at the heart of Saudi society, which manifest themselves in the form of opposition to the regime. A major internal problem in Saudi Arabia is unemployment amongst young Saudis. The unemployment rate of young Saudis between the ages of 20 and 24 is at staggering 39 percent<sup>131</sup>.

Economic disparities between rulers and their bureaucrats, and the average citizen is a point of major political friction within Saudi society. Saudi Arabia faces several other serious challenges besides unemployment, notably the question of succession. The topic of succession is beyond the scope of this paper but deserves research on its own, for it is a possibly a bigger threat than unconventional oil to Saudi Arabia's stability.

These major internal problems were temporarily mitigated thanks to the quick-fix use of oil revenue. After the Arab Spring spread from Tunisia to Egypt into other Arab countries, Saudi Arabian rulers moved decisively to crush those inclined to mount a campaign of public dissent inside Saudi Arabia. In dozens of places, hundreds of protesters routinely assembled, calling for relatively minor concessions, including greater religious tolerance and the release of Shiite political prisoners. At the time of the Arab Spring, King Abdullah offered up over \$100 billion in domestic incentives to keep people from protesting in the streets. He also ordered thousands of security forces to close off spaces for public assembly and to make clear that the penalties for

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<sup>131</sup> Mabon, Simon. "Kingdom in Crisis? The Arab Spring and Instability in Saudi Arabia." *Contemporary Security Policy* 33, no. 3 (2012): 532.



unrest would be severe. With a mounting budget deficit because of unconventional oil, Saudi Arabia would not have enough revenue to provide such domestic spending to keep people from demonstrating in the streets.

## **2.5.5 RESPONSE TO ARAB SPRING REVOLUTION THREAT**

This protests across Tunisia and resulted in an overthrowing of their President Ben Ali in January 2011. The people of neighboring Arab states felt empowered and began calling for change within their own countries. Saudi Arabia began losing powerful regional allies such as Hosni Mubarak in Egypt, which began to change the balance of power in the Middle East. Saudi Arabia used its power yielded from oil revenue to get out in front of revolutionary movements in other neighboring countries<sup>132</sup>. Saudi Arabia used its regional power against movements in Yemen and Syria to preserve the political status quo in both places. It has also provided monetary support to the under stressed monarchies in Morocco and Jordan. In the post-Mubarak Egypt, Saudi Arabia has provided billions of dollars of aid in an effort to shape the political outcome there and support the overthrow of the Muslim Brotherhood.

Another source of concern is the continuing Syrian conflict where Saudi Arabia funded Islamist opposition to the Assad regime<sup>133</sup>. There is evidence of Saudi Arabia backing any group opposing Assad including al-Qaeda-linked al-Nusra Front<sup>134</sup>. Saudi citizens are also one of the largest foreign fighters joining ISIL. These fighters pose a threat of returning to attack the Kingdom. Recent headlines show ISIL claimed responsibility for recent attacks inside Saudi Arabia.

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<sup>132</sup> Ibid.

<sup>133</sup> Soage Antepazo, Ana Belén. Saudi Arabia: A Regional Power Facing Increasing Challenges. Instituto Espanol de Estudios Estrategicos, December 2015.

<sup>134</sup> Ibid.

The Muslim Brotherhood is a threat to Saudi Arabia's religious power because it offers the Muslim world a political Islam alternative to Saudi Arabia's Wahhabi version. Saudi Arabia views all political parties, including the Muslim Brotherhood, as a threat to the ruling family, therefore outlawing the formulation of any political party in the country. By 2011, the post-revolutionary struggle for power was underway in Egypt. There were indications that Saudi Arabia was meddling: money from Saudi religious organizations was used to finance emerging conservative religious political networks<sup>135</sup>. Egyptian Salafis, who embrace an orthodoxy similar to that of the Wahhabi religious establishment of Saudi Arabia, embraced the Saudi national flag as their most important political symbol.<sup>136</sup> Thanks to oil revenue, Saudi Arabia was able to finance an opposition group in Egypt that eventually toppled Mohamed Morsi and the Muslim Brotherhood from power.

In Bahrain, when pro-democracy protesters first mobilized to press for political reform in mid-February 2011, over fifteen hundred members of Saudi Arabia's National Guard poured over the causeway into the tiny island country which sits just a few miles off of Saudi Arabia's eastern shore. The Armed security forces responded brutally, violently attacking tens of thousands of peaceful protesters. In the merciless crackdown that followed, dozens of pro-democracy activists were killed, thousands were arrested, disappeared, and tortured<sup>137</sup>. With the sweeping changes underway across the region, Saudi officials knew that if the protests in Bahrain were allowed to succeed, a democratic state next door controlled by a Shiite majority would lead to catastrophe because it would unite with the local Shiite population and Saudi Arabia's regional rival: Iran.

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<sup>135</sup> Ibid.

<sup>136</sup> Ibid.

<sup>137</sup> Jones, Toby Craig. "Saudi Arabia versus the Arab Spring". *Raritan: A Quarterly Review* (2011). 43

The origins of Saudi-Iranian geopolitical hostility derive from the Iranian Revolution and the rise of political Shi'ism<sup>138</sup>. Ayatollah Khomeini, a charismatic Shiite cleric who was instrumental in the fall of the Shah, called repeatedly for the overthrow of the Al Saud during the 1980s<sup>139</sup>. While Shiites constitute the majority of Iran's population, in the rest of the Persian Gulf, they are a marginalized minority. In both Saudi Arabia and Bahrain, Shiites are shut out of power, discriminated against by Sunni political elites, and subjected to the worst kinds of oppression and abuse. After the Iranian Revolution, Shiites in Saudi Arabia and Bahrain began to agitate against their rulers, sometimes violently. Over the next two decades, in addition to empowering Islamic radicals in Central Asia, Sunni leaders encouraged virulent forms of anti-Shiite sectarianism to counter Shiite empowerment.<sup>140</sup>

Over the course of the protests, Saudi leaders declared publicly, and always without evidence, that Iran was directly responsible for the "destabilization" of its closest neighbor<sup>141</sup>. The accusations against Iran distracted attention from the democratic substance of the protesters' message and sought to recast them as radicals who threatened to upend security and stability close to home<sup>142</sup>. Security forces and secret police identified pro-democracy Shiite activists as Iranian agents<sup>143</sup>. Anti-Iranian fear mongering successfully played upon U.S. and Israeli anxieties about Iran's potential power in the region<sup>144</sup>.

The U.S. gives first priority to protecting the petroleum-based political status quo in the Persian Gulf; it was always unlikely that the U.S. would intervene against Saudi Arabia or on

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<sup>138</sup> Ibid.55-56.

<sup>139</sup> Ibid.

<sup>140</sup> Ibid.

<sup>141</sup> Ibid.

<sup>142</sup> Ibid.

<sup>143</sup> Ibid.

<sup>144</sup> Ibid.

behalf of any pro-democracy movement in the region<sup>145</sup>. Since the calls for political transformation came from within oil-rich Saudi Arabia and Bahraini the U.S. just ignored them. With unconventional shale oil, the U.S. will not have the need to protect the petroleum-based alliance and any anti-Iranian rhetoric without solid evidence will be no excuse for tyranny. The U.S.-Iranian relations are already warming up at the discontent of the Saudi regime. The U.S. will have more political leverage to engage in more cooperation with Iran once unconventional oil sets the U.S. free from major energy producers.

### **2.5.6 ENVIRONMENTAL THREATS- WATER SHORTAGE**

Renewable groundwater and surface water supply are limited while demand for water is growing rapidly<sup>146</sup>. Water scarcity is a major problem also because water has a connection to energy production and use. Saudi Arabia must use domestic oil for desalination, causing less revenue for government. Due to the rapid depletion of groundwater, Saudi Arabia relies on desalination for domestic, industrial and agricultural water requirements. The use of energy to generate water eats away export revenue funds. Saudi Arabia is the third-largest per capita water user worldwide and addresses this problem of domestic demand primarily through desalination and the abstraction of non-renewable groundwater, both of which are extremely problematic environmentally and economically costly<sup>147</sup>. Saudi Arabia is one of the world's most water-stressed countries. Lack of water resources in Saudi is a looming security concern as the country receives little rainfall and has limited underground or other reserves.

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<sup>145</sup> Ibid.

<sup>146</sup> Hellegers, Petra, Walter Immerzeel, and Peter Droogers. 2013. Economic concepts to address future water supply-demand imbalances in Iran, Morocco and Saudi Arabia. *Journal of Hydrology* 502 (10/10): 62.

<sup>147</sup> Kajenthira, A., A. Siddiqi, and L. D. Anadon. 2012. A new case for promoting wastewater reuse in Saudi Arabia: Bringing energy into the water equation. *Journal of Environmental Management* 102 (07/15): 184.

Saudi Arabia subsidizes the desalination and abstraction of water as part of its rentierism social contract with the population. The country maintains 27 desalination plants to support the growing demand of water and the government has allocated around \$7 billion on water related projects in 2013<sup>148</sup>. Saudi Arabia will struggle to maintain this budget once U.S. unconventional oil floods the market. With a growing population predicted for the future, the need for more sustainable water security will be a struggle for the Saudi regime and will cause the rentierism social contract to break.

### **2.5.7 ENERGY THREATS- DOMESTIC CONSUMPTION & LACK OF RENEWABLE ENERGY**

Saudi Arabia's oil market position and leverage is under threat by various challenges. Domestically, booming oil demand threatens to cannibalize exports<sup>149</sup>. The country's crude oil consumption rose by 6% annually over the last decade<sup>150</sup>. This consumption is fueled by a growing population's demand for transport and increased electricity generation from oil<sup>151</sup>. These excessive consumption rates are encouraged by the oil subsidies provided as part of the social contract in the rentier model. Total domestic crude burned for power generation is on track to reach 1MBD within 5 years, 10% of the country's current output<sup>152</sup>. If a budget deficit continues past Saudi Arabia's reserve funds, government cuts will come from domestic oil subsidies, which will disturb the social contract.

Domestic oil consumption is another related issue in Saudi Arabian resource mismanagement because of rentierism and government subsidization. The rapid growth of

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<sup>148</sup> Alyousef, Yousef, and Paul Stevens. 2011. The cost of domestic energy prices to Saudi Arabia. *Energy Policy* 39 (11) (11/01): 6900.

<sup>149</sup> Leonard, Mark. *Connectivity wars: Why migration, finance and trade are the geo-economic battlegrounds of the future*. 2016.

<sup>150</sup> *Ibid.*

<sup>151</sup> *Ibid.*

<sup>152</sup> *Ibid.*

Saudi Arabia's domestic oil consumption, a nine-fold increase in 40 years, to nearly 3 million barrels per day; about one-fourth of production is having an impact on exports and revenue as a result<sup>153</sup>. Such rapid growth in consumption—5.7% annually, which is 37% faster than its income growth of 4.2%—will challenge Saudi Arabia's ability to increase its oil exports<sup>154</sup>. The domestic energy mismanagement in Saudi Arabia is a result low interest in renewable, unmotivated by huge quantities of crude oil and natural gas reserves<sup>155</sup>.

Heavy domestic oil consumption is a major problem, which is untamed, but affordability is important for social welfare therefore energy is subsidized, similar to the water security dilemma. Domestic energy and water subsidy will not be affordable once U.S. unconventional oil starts competing for market share. If Saudi Arabia's budget deficit increases, it will be unable to subsidize energy, adding pressure on the population that will struggle to keep domestic discontent quite.

### **2.5.8 DUTCH DISEASE**

Saudi Arabia makes the mistake of equating oil abundance with oil security and ignores the implications of tying its economic fate to energy. A new analysis by Securing America's Future Energy (SAFE) determines a country's Oil Security Index by considering its dependence on oil, economic exposure to oil price changes, and physical oil supply in order to assess the full picture of its oil security<sup>156</sup>. The report's results for Saudi Arabia and the U.S. a warning to policymakers that an enormous supply of energy resources is marginalized by bad policy. The U.S. ranks fifth out of 13, bolstered by the shale oil supply but is vulnerable to oil price changes due to high consumption and lack of fuel diversity. Saudi Arabia ranked last; the advantages of

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<sup>153</sup> Ibid.

<sup>154</sup> Ibid.

<sup>155</sup> Patlitzianas, Konstantinos D., Haris Doukas, and John Psarras. 2006. Enhancing renewable energy in the Arab states of the gulf: Constraints & efforts. *Energy Policy* 34 (18) (12/01): 3719.

<sup>156</sup> *The economics of shale oil: Saudi America*. *The Economist*, 410, no. 8874

vast reserves and low production costs lose to high levels of spending on oil, inefficient consumption, and dependence on oil revenue. The conclusion is domestic energy resources are a tremendous advantage, but the road to affordable and secure energy is not paved with oil wells alone<sup>157</sup>.

### **2.5.9 BUDGET PROBLEMS**

Poor fiscal planning, waste, corruption, and a lack of transparency plagues Saudi Arabia's budget. In 2014, for the first time since 2005, the Council of Ministers endorsed a balanced budget<sup>158</sup>. Saudi Arabia is feeling budgetary pressure because of the threats posed by the Arab Spring, and the intervention in Syria and Yemen. The government expanded spending since the Arab Spring with the intention of continuing to stimulate the economy. A considerable rise in domestic spending and the expansion of the patronage networks that kept dissent controlled is becoming considerably more expensive to maintain.

Government spending of \$66.13 billion will support economic growth and provide encouragement and opportunities for the private sector<sup>159</sup>. The economy would collapse without government stimulation, which is heavily dependent on oil. Oil revenues account for 90% of total Saudi Arabian export earnings, up to 80% of state revenues, and at least 44% of the country's GDP<sup>160</sup>. Analysts estimate a price of \$67 per barrel for Saudi export crude and production of 9.4 million barrels per day in order for the revenue to be consistent with the budget. If U.S. unconventional oil takes any of that market share away, or the surplus in global supply causes the market price of oil to drop, the budget will suffer. Despite the increase in global demand in 2013, OPEC's share of 29.9 million b/d is 400,000 b/d beneath demand for the

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<sup>157</sup> Ibid.

<sup>158</sup> Saudi Arabia's 2014 Budget. Jadwa Investment. 23 December 2014. 1. <http://www.jadwa.com/en/download/2014-budget/saudi-arabias-2014-budget>

<sup>159</sup> Ibid.

<sup>160</sup> Saudi Arabia Oil & Gas Report. (2013), Business Monitor International Ltd. 5.

group's oil last year<sup>161</sup>. This trend will continue if the U.S. decides to export unconventional oil, resulting in OPEC and Saudi Arabia loss of market share.

If the available Saudi government budget is reduced, then the question becomes where will the cuts come from and where will the spending continue? Will the regime sacrifice the purchase of arms or the social spending? To begin to predict the Saudi regime's tradeoffs, it's important to gain a better understanding of the fiscal budget breakdown<sup>162</sup>:

**Table 1: Saudi Arabia's Governmental Spending**

<b>Expense</b>	<b>% of Total Spending</b>
Education and Manpower	25%
Health and Social Affairs	12.9%
Transport and Infrastructure	7.9%
Water and Agriculture Infrastructure	7.3%
Municipality Services	4.6%
Defense and Security	Undisclosed <sup>163</sup>

Saudi Arabia's oil-dependent budget and economy are affected by oil price, one if not all of these budgetary expenses will likely shrink.

With the Shiite crescent stretching from Iran to Syria, the Muslim Brotherhood brewing underground in Egypt, trained jihadists returning from Iraq and Syria, its enemies from East to West, inside and out surround Saudi Arabia. Defense spending, the main source of military

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<sup>161</sup> Brower, Derek. "Oil-market showdown in 2014." *Petroleum Economist* 80, no. 7: 13, 2013.

<sup>162</sup> Saudi Arabia's 2014 Budget. Jadwa Investment. 23 December 2014. 1. <http://www.jadwa.com/en/download/2014-budget/saudi-arabias-2014-budget>

<sup>163</sup> Likely to account for the largest share of total spending but is kept secret because is often associated with kickback and corruption.



power will likely not shrink. Defense spending is secretly incentivized by kickbacks and corruption for the ruling elite, so all other budgetary items supporting the common citizen will likely shrink first. Referring back to the principles of rentierism where the population sacrifices political representation as long as the state provides welfare, once those pieces of the pie shrink, the pieces that provide for the welfare of the population, the social contract breaks, resulting in a high risk of destabilization.

U.S. shale oil could be a paradigm-shifter for the global oil market because it could alter its fundamental features. Since the oil market is adequately supplied, excess capacity could cause a downward readjustment in price, which could slow U.S. unconventional production and diminish Saudi Arabia's revenues. Energy policy between the world's largest energy consuming nation and its oldest energy-producing ally needs to be carefully managed. This requires an in-depth analysis of all the environmental and energy threats concerning unconventional oil to the U.S. and Saudi Arabia, after which we will present an integrated policy options from a U.S. perspective to ensure mutual benefit for both countries.

Without careful coordination between the two allies, a geopolitical battle could spur up with unknown consequences ranging from Saudi Arabia retaliating by driving prices down to protect its market share before the U.S. could rev up its shale oil policy, to the U.S. unintentionally destabilizing Saudi Arabia. Saudi Arabia pledged \$130 billion to various domestic-social programs in the early weeks of the Arab Spring. Robinson argues that oil still matters in regime stability because the more rents a regime has at its disposal, the more likely it can survive periods of dissent. While the amount of oil reserves Saudi Arabia has prolonged the regime, if price falls because of an oil surplus, government revenues will fall significantly and Saudi won't be able to fund domestic programs that keep dissenters quiet.

There is a possibility that the unconventional oil revolution started in the U.S. is replicated elsewhere from Argentina to China and beyond<sup>164</sup>. If these countries gain the capability to extract shale at the same time the technology improvements lower the extraction breakeven costs, these factors would exacerbate the threat to Saudi Arabia's stability by hurting its exports to these countries and the required oil revenues to maintain stability. Table 2 illustrates which countries Saudi Arabia's \$306B worth of exports in 2014 went to<sup>165</sup>, with oil accounting for nearly 90% of central government fiscal revenues and over 85% of export revenues<sup>166</sup>:

**Table 2: Saudi Arabia's Top Export Partners' Shale Reserves**

Country	Percentage of Saudi Arabia Exports <sup>167</sup>	Estimated Shale Reserves (billion barrels) <sup>168</sup>
China	14%	32.2
Japan	14%	U.S. supply
U.S.	14%	58
South Korea	11%	U.S. supply
India	9.8%	3.8
Singapore	4.4%	U.S. supply
France	2.8%	4.7
Spain	2.1%	0.1
Italy	1.7%	EU supply
Remaining	26.20%	320.1

<sup>164</sup> Aloulou, Faouzi. "Argentina and China lead shale development outside North America in first-half 2015." Today in Energy, June 2015. <http://www.eia.gov/todayinenergy/detail.cfm?id=21832>

<sup>165</sup> AJG Simoes, CA Hidalgo. The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development. (2011).

<sup>166</sup> International Monetary Fund, "Saudi Arabia: Selected Issues." International Monetary Fund Country Report. October 2015.

<sup>167</sup> AJG Simoes. Ibid.

<sup>168</sup> U.S. Energy Information Administration. "World Shale Resource Assessments". September 2015. <http://www.eia.gov/analysis/studies/worldshalegas/>

With a U.S. pivot to Asia to supply China's regional rivals, Saudi Arabia could potentially lose over 74% of its export revenue of oil to countries that could adequately be energy dependent, and leaving almost as much reserves for the world as Saudi Arabia has total. Nearly 90% of Saudi Arabia's export income and 75% of its budget income comes from oil<sup>169</sup>. The majority of the remaining 10% income comes from oil derivatives such as petrochemicals<sup>170</sup>. A price downfall due to shale will have severe impacts on Saudi Arabia.

The price decline will also have a severe impact on other GCC allies that depend on Saudi Arabia's regional leadership. 95% of Kuwait's export income comes from oil<sup>171</sup>. Kuwait also has a large Shia population that could open the door for Iranian meddling if there is dissent due to the unequal distribution of wealth. The UAE and Qatar are the more economically diversified GCC states; even they will feel the ripples of oil price declines<sup>172</sup>. For example, 34% of Qatar's income comes from oil<sup>173</sup>. Of particular concern in the region is Iraq whose entire export income makes up more than 99% of its budget<sup>174</sup>. This severe budget shortfall is a guarantee to keep the country in turmoil and limit the funds it has to deal with ISIL or maintain autonomy free of Iran's influence.

For Saudi Arabia, optimistic Saudi Arabian leaders have played down the budget shortfall threat. They remark that the concerns of Saudi Arabia's budget shortfall are overblown by the media and don't take into account the countries' sovereign wealth overseas investments<sup>175</sup>. This

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<sup>169</sup> International Monetary Fund, "Saudi Arabia: Selected Issues." International Monetary Fund Country Report. October 2015.

<sup>170</sup> Ibid.

<sup>171</sup> Oil Security 2025: U.S. National Security Policy in an Era of Domestic Oil Abundance, Commission on Energy & Geopolitics, January 2014.

[http://www.secureenergy.org/sites/default/files/Oil\\_Security\\_2025\\_0.pdf](http://www.secureenergy.org/sites/default/files/Oil_Security_2025_0.pdf)

<sup>172</sup> Ibid.

<sup>173</sup> Ibid.

<sup>174</sup> Ibid.

<sup>175</sup> Ibid.

is a dangerous mitigation plan because when the price of oil drops, the world economy that is correlated to oil prices goes into recession, resulting in the value decline of Saudi Arabia's overseas investments. Second, Saudi Arabia's assets are estimate at \$770 billion, and with the current budget deficit rates, the IMF released a report that set shockwaves across the globe by stating that Saudi Arabia is currently on track to go bankrupt by 2020<sup>176</sup>.

#### **2.5.10 SINKING OIL PRICES AND THE 2016 BUDGET**

Because of oversupply led in particular by Saudi Arabia, which produced at world records, the price of oil prices began to sink rapidly in 2015 and continued to slide in 2016. Saudi Arabia released a more tightfisted budget for 2016<sup>177</sup>. This budget reflects lower spending on subsidies because of low oil prices and the involvement in the war in Yemen<sup>178</sup>. \$5.33 billion in overspending was due to increased military and security spending<sup>179</sup>. The 2015 revenue was 15% below target, and the government allocated almost \$50 billion in provisions for low oil prices in 2016<sup>180</sup>. The government announced unprecedented cuts to energy subsidies, raising the prices of water, electricity supplied to households, and the cost of gasoline, ethane and gas<sup>181</sup>. Although the prices did not increase by a significant amount that will cause destabilization, this is just the beginning of the trend in the breaking of the rentierism contract that I predicted if the price of oil remains low due to the threat of shale oil.

#### **2.5.11 IMPLICATIONS**

At the height of the shale oil revolution, some analysts argued that if Saudi Arabia vacates the role of swing producer, U.S. shale is primed to step in to take its place to fulfill the

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<sup>176</sup> International Monetary Fund, "Saudi Arabia: Selected Issues." International Monetary Fund Country Report. October 2015.

<sup>177</sup> Habboush, Mahmoud, "A Breakdown of the 2016 Saudi Budget and Its Implications." Bloomberg, December 2015.

<sup>178</sup> Ibid.

<sup>179</sup> Ibid.

<sup>180</sup> Ibid.

<sup>181</sup> Ibid.

role<sup>182</sup>. This is a not valid argument. Comparing the shale industries characteristics against the swing production definition in Chapter 1 of this thesis shows that shale exhibits some of the swing production qualities. For example, shale has low upfront capital costs, a short time to spin up production, and the ability to turn on and off production depending on market demand<sup>183</sup>.

Recent evidence showed that as oil prices started to fall in mid-2014, the U.S. shale industry went under strain, which resulted in a wave of shale company bankruptcies<sup>184</sup>. Although U.S. shale proved itself as an energy market disrupter that threatened Saudi Arabia's geo-economic position, the U.S. shale industry doesn't have the ability to come close to replacing Saudi Arabia's supplies or role as swing producer. One of the requirements to meet the swing production definition is the ability to keep spare capacity to mitigate oil supply disruptions. For the entire U.S. shale industry, the drilled but uncompleted well backlog, the U.S. equivalent of Saudi Arabia's spare capacity, is quickly diminishing<sup>185</sup>. In addition, the uncoordinated collective production decisions of hundreds of individual private shale firms is no match to the centralized strategic thinking of Saudi Arabia's Oil Ministry policy.

There is no doubt the U.S. shale industry added fierce competition to the oil market and forced Saudi Arabia's hand, but in response Saudi Arabia protected market share by continuing to pump despite an adequately supplied global market which lowered prices and in turn forced U.S. shale to show its hand. In conclusion, U.S. unconventional oil is not a newfound geopolitical tool that acts as a substitute with the power gains received from the alliance with Saudi Arabia.

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<sup>182</sup> Leonard, Mark. *Connectivity wars: Why migration, finance and trade are the geo-economic battlegrounds of the future*. 2016.

<sup>183</sup> Ibid.

<sup>184</sup> Scheyder, Ernest and Wade, Terry. "U.S. oil industry bankruptcy wave nears size of telecom bust." Reuters, May 2016.

<sup>185</sup> Leonard, Mark. *Connectivity wars: Why migration, finance and trade are the geo-economic battlegrounds of the future*. 2016.

Saudi Arabia played a clever geo-economic strategy to force the shale industry to reveal its price elasticity and decision-making patterns while ensuring stable revenue for itself to maintain short to mid-term stability<sup>186</sup>. U.S. shale production and the industry as a whole switched from a paradigm of growth to one of survival due to declining production trends and a wave of bankruptcies<sup>187</sup>.

Although Saudi Arabia's made the strategic decision to expand its oil refining capacity to counter U.S. shale oil competition, its lack of long-term planning could mean overall export capacity will decline to less than 5 MBD by 2020 due to domestic consumption<sup>188</sup>. This threatens its spare capacity, a key geo-economic power tool of strategic importance to balance the market and control prices. If spare capacity dwindles, Saudi Arabia's role as the world's swing producer is undermined and its international political status, driven from its dominance of the oil market, becomes weaker. U.S. policymakers need to ensure that whatever decision they decide to make regarding the ban on oil exports that a price war doesn't start with Saudi Arabia. The appropriate market structure that would ensure a stable supply of shale oil and gas without exerting a negative impact on renewable energy policies is still missing in the U.S. policy<sup>189</sup>.

#### **2.5.12 POTENTIAL BACKLASH TO U.S. SHALE OIL**

Saudi Arabian policymakers have shrugged off the shale revolutions in public, but have no doubt that anything that threatens their oil interests is taken seriously and met with the full force of the regime. An initial boost of oil supply from the U.S. into the global oil market could possibly lead to a competition scenario. For the U.S., a price war has some serious risk. Break-

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<sup>186</sup> Ibid..

<sup>187</sup> Scheyder, Ernest and Wade, Terry. "U.S. oil industry bankruptcy wave nears size of telecom bust." Reuters, May 2016.

<sup>188</sup> Leonard, Mark. Connectivity wars: Why migration, finance and trade are the geo-economic battlegrounds of the future. 2016.

<sup>189</sup> Janusz Chojna, Miklós Losoncz, and Paavo Suni. Shale Energy Shapes Global Energy Markets. National Institute Economic Review. November 2013. 226: F44

even prices for shale oil are in the range of \$44–\$68 per barrel, and the extraction of shale oil is commercially viable only so long as the oil price remains above \$70 per barrel<sup>190</sup>. A significant threat to shale oil production is a prolonged slump of the world economy or a surge in oil extraction elsewhere, something Saudi Arabia is solely capable of as a swing producer.

## **2.6 CONCLUSION**

U.S. unconventional excess supply weakens already flailing situation, which threatens the reduction of spare capacity, which is a key element of swing producer, which weakens its status in world geopolitical affairs. Today's rapidly changing global oil market presents fundamental challenges to Saudi Arabia's ability to use its resource endowment and status as a swing producer to project global market power. Saudi Arabia's response to the Arab Spring was relentlessly hostile. The kingdom has mobilized both its tremendous wealth and its use of brutal force to crush peaceful democratic uprisings at home and around the region. Its approach to counterrevolution was carefully orchestrated and enabled with the help of its oil revenue. The oil price downturn, already causing significant budget setbacks, will have a significant impact on Saudi Arabia's ability to orchestrate a similar counter-revolutionary reaction in the future. If an Arab Spring like event occurred post oil price collapse in 2015 because of the oil surplus created by the unconventional shale oil revolution, Saudi Arabia's stability will be under serious threat.

The lifting of the oil export ban combined with unconventional oil will allow the U.S. to become a major oil exporter in the future. The consequence could cause massive damage to the Saudi government's revenue and deficit. As a result, this will have far-reaching effects on Saudi Arabia's rentier state model and ability to crush revolutions at home and abroad, resulting in the destabilization of the monarchy. U.S. policymakers should understand the serious global

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<sup>190</sup> Janusz Chojna, Miklós Losonczi, and Paavo Suni. Shale Energy Shapes Global Energy Markets. National Institute Economic Review. November 2013. 226: F44

security risk if Saudi Arabia destabilizes given its strategic role in the Middle East and the energy markets. Even with U.S. intervention, it may be too late for Saudi Arabia to recover from its repression, mismanagement of its water, energy resources, wealth, and environment, and corruption and waste. The final straw that broke the camel's back could be the revolution in unconventional energy.

Instability in Saudi Arabia due to environmental and energy security-related threats would cause havoc in global oil markets and hurt the U.S. economic and energy security, and will eventually weaken the U.S. influence in the region. This research shows such a revolution can not only be sparked by internal dissent or external enemies, but also caused by a paradigm shifts in the energy markets.

Oil revenue, the life source of the Saudi regime's power, is potentially under threat due to the increased supply from unconventional oil. The shale oil revolution if adopted by other nations will result in a growing worldwide oil supply surplus, causing a significant dip in oil prices, and creating fierce competition among producers, meaning decreased Saudi market share. Saudi Arabia will not remain immune from revolution forever under today's fragile conditions. Before shale oil, the Saudi regime's rule had a horizon of at least 75 years-when the oil wells run out and the proven reserves deplete. Now the threat from shale oil reduces that time span.



## **CHAPTER 3: How Does Potential U.S. Energy Independence Change the Balance of Power in the Middle East?**

### **3.1 INTRODUCTION**

In a highly interconnected world, disruptive changes in energy markets have the potential to produce geopolitical ripples globally. This research aims to explore this subject by posing the research question: How does potential U.S. energy independence change the balance of power in the Middle East? My hypothesis is that energy independence combined with the Iran nuclear deal will change the U.S. relationship with its Gulf allies, which will cause various shifts in geopolitical alliances and the region's balance of power. Ultimately, the most influential factor in determining the U.S. strategic interest and footprint in the Middle East is tied to economic security dependence rather than the physical supply of oil.

This paper contributes to the field of study by providing a greater understanding of the linkage between the global oil market and the Middle East region's security dynamics, which will inform U.S. policymakers to protect and advance U.S. interests by ensuring a stable and desirable balance of power in the region. This research also contributes to the existing body of literature by providing a comprehensive assessment of the complex geopolitical interdependencies between U.S. security interests in the Middle East with respect to other global and regional powers.

### **3.2 BACKGROUND**

Dependence on foreign oil and the end of imperialism are the main reasons the United States (U.S.) abandoned its policy of isolationism in the Middle East following World War II. The U.S. did not embark on an imperial colonization spree like other western powers, but rather pursued a mutually beneficial relationship with oil producing countries in the Middle East. The ensuing Cold War was a zero-sum game against the Union of Soviet Socialist Republics (U.S.S.R.)

and the pursuit of hegemony to control the Middle East energy resources was a key part of U.S. national security.

After the September 11<sup>th</sup> attacks, over a decade's worth of war on two fronts (Afghanistan and Iraq) left the U.S. with a massive number of human and monetary losses, meanwhile leaving the Middle East in its most turbulent state in modern times. Ever since, the U.S. and the Middle East's geopolitical landscape has shifted significantly. U.S. dependence on foreign oil declined since peaking in 2005<sup>191</sup>. U.S. shale oil production skyrocketed and, combined with massive improvements in automotive fuel efficiency technology, the nation's foreign oil dependence transformed dramatically.

Meanwhile domestically the U.S. economy remained volatile and Americans felt the squeeze of the global economic recession. The U.S. national debt continued to rise and infrastructure continued to crumble. Concurrently, the Middle East spiraled towards anarchy despite U.S. efforts to transform the region, resulting in increased anti-Americanism. With all the domestic issues and growing Middle Eastern conflicts, some have argued that as the U.S. now has the ability to be energy independent and free of foreign imports from unstable regions, it should pull back from the Middle East.

Similar to how the invasion of Iraq had unintended geopolitical consequences, scaling back U.S. hegemony in the Middle East does too. This is not easy to predict in a region full of many complex geopolitical relationships. At stake is the U.S. strategic relationship with regional allies with which strong security ties help the U.S. deal with broader regional forces of instability. The list of regional threats includes a wide variety of issues ranging from Iran's

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<sup>191</sup>EIA, U.S.. "How dependent are we on foreign oil?" U.S. Energy Information Administration (EIA) May 2013.

regional hegemonic ambitions, the threat of global terrorism, and regime stability concerns in all countries of the region.

The U.S. is the main guarantor of stability and security in the Gulf region due to the importance of its geographic location, energy, and financial wealth to national security and geopolitical interests. To implement this security umbrella, the U.S. and Gulf Cooperation Council (GCC) countries established security cooperation agreements. This security framework protects the GCC from external rivals such as Iran. Iran's aspirations to extend its regional influence emanates from its ideology, which not only contradicts U.S. values and interests, but also aims to undermine it in the region and beyond<sup>192</sup>. Any potential Iranian act that seeks to dominate in the region is a threat to U.S. interests.

### **3.3 LITERATURE REVIEW**

The focus of the compiled literature centers around the intermingled topics of U.S. hegemony in the Middle East, the impact of recent U.S. policy shifts on the relationship with the region's political powers, and the implications of Iran's nuclear agreement on the region's balance of power. U.S. national security literature is the overarching framework to organize the researched subtopics. The balance of power theory is the main international relations theoretical approach to analyze the Middle East's security in this research. Understanding the interests and motivations of the various global powers competing for Middle Eastern energy resources is an important analysis in this research.

El-Katiri (2013) argues that a balance between different power centers amongst GCC states and the wider region best preserves U.S. interests<sup>193</sup>. A monopoly of excessive power by

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<sup>192</sup> El-Katiri, Mohammed. The future of the Arab Gulf monarchies in the age of uncertainties. Army War College Carlisle Barracks Pa Strategic Studies Institute, 2013.

<sup>193</sup> Ibid.

any single country would be a recipe for destabilization and conflict. El-Katiri recommends the U.S. should aim to prevent the control of the region's energy resources under the influence of any single dominant power<sup>194</sup>. Since the rise of a sole regional power risks the region's stability, it consequently also threatens U.S. national security interests.

Realism observes that international politics or the behavior of states towards each other is because of the constant struggle for power<sup>195</sup>. In order to contain power and limit its potential abuse, the balance of power theory becomes central to the realist perspective on international relations<sup>196</sup>. A balance of power in equilibrium refers to conditions where the power of one state or set of states is balanced by equivalent power of another state or set of states<sup>197</sup>. A balance of power is in disequilibrium when distribution among contending states is not balanced<sup>198</sup>. This condition favors the leading hegemon and may result in abuse of power by the strongest state, leading to instability. The theory acknowledges that unbalanced power in the system is unsafe.

According to theory, there are four ways to change the balance of power status quo or preserve it<sup>199</sup>. The first is to make a hostile state weak by dividing it or keeping it divided. A second way is to maintain or re-establish balance through territorial compensation. The third way is through either initiating an arms race or disarmament. Lastly, by establishing alliances which are historically proven the most important manifestation of the balance of power<sup>200</sup>.

Alliances can aim to either change, maintain or re-establish the balance of power. Now that the

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<sup>194</sup> Ibid.

<sup>195</sup> Toledo, Peter. "Classic Realism and the Balance of Power Theory." *Glendon Journal of International Studies/Revue d'études internationales de Glendon* 4 (2005).

<sup>196</sup> Ibid.

<sup>197</sup> Ibid.

<sup>198</sup> Ibid.

<sup>199</sup> Ibid.

<sup>200</sup> Ibid.

U.S. has achieved a greater degree of energy independence due to the shale oil revolution, this liberation alters the U.S. balance of power with traditional regional allies it relied on previously for energy security. Therefore, it is a legitimate case for the U.S. to re-examine its relationships and overall involvement in the region, especially since it comes at a hefty price.

There are two opposing views regarding the strategic posture for the U.S. in the Middle East: to either remain involved or whether to scale back. U.S. policy in the Middle East historically is dominated by hard military power for previous decades. The negative consequences of U.S. involvement cost hundreds of thousands lives and millions displaced people<sup>201</sup>, generated anti-American resentment, helped keep oppressive dictatorships in power, and fueled sectarian and religious extremism. The rapid growth in domestic oil supplies and declining import dependence created the perception occasionally supported by U.S. policies, actions, or lack thereof that the U.S. is ready to disengage from the Middle East. The Middle East Policy Council interviewed many influential players on Capitol Hill and found that the overwhelming majority are against even limited military action in the region<sup>202</sup>.

Some scholars argue that the benefits of oil independence allow the U.S. to project power to exert influence without having to rely so heavily on hard power. Howard (2008) argues that oil independence has significant geopolitical security benefits for the U.S. in restraining destructive actions of oil exporters<sup>203</sup>. An example to support this argument is the case of U.S. economic sanctions against Libya, which prevented them from increasing oil production, eventually resulting in forcing former Prime Minister Muammar al-Gaddafi to give up his pursuit

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<sup>201</sup> Eisenhower Study Group. "The Costs of War since 2001: Iraq, Afghanistan, and Pakistan." Providence, RI: Watson Institute, Brown University (2011).

<sup>202</sup> Kahl, C., Gfoeller, M., Katz, M. N. and Kimmitt, M. T. (2014), Symposium: U.S. Commitments to the Gulf Arab States: Are They Adequate?. *Middle East Policy*, 21: 1–33. doi: 10.1111/mepo.12067

<sup>203</sup> Howard, R. (2008, Nov 29). Essay: An ode to oil. *Wall Street Journal*

of nuclear weapons from Pakistan<sup>204</sup>. Howard only provides one case study as evidence, which is an oversimplified analysis to draw the conclusion that U.S. unconventional oil as a newfound political tool.

Other scholars make similar broad arguments. Bahgat and Sharp (2014) analyzed a new U.S. strategic orientation in context to post-Arab spring developments and post-energy independence<sup>205</sup>. They makes the argument that moving forward, the U.S. should play a less active role in the Arab world and give major regional states the time and space needed to sort out their domestic and foreign policies<sup>206</sup>. While the U.S. should not cut them off completely, it needs to focus on the strongest ties it has already with Israel and Turkey, and address the major issues it has with Iran<sup>207</sup>.

Arguing for a tradeoff at the expense of Arab allies is a risky proposition. The authors reason the U.S. has major policy differences with the two other major Arab countries, Syria and Iraq, because they have had a strong alliance with the U.S.S.R. in the past, and now Russia. Not only is this a weak reason to make the argument, but it also ignores the strong relationship Russia has with Iran. I agree with part of their conclusion, that less foreign intervention by the U.S. is likely to help Arab countries to determine their future without blaming foreign countries, but the U.S. should focus on the entire region, not just the three peripheries: Iran, Israel, and Turkey<sup>208</sup>.

Another group of scholars argues energy independence will not decrease U.S. involvement in the Middle East because U.S. interests in the region, including the protection of

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<sup>204</sup> Ibid.

<sup>205</sup> Bahgat, Gawdat, and Robert Sharp. 2014. "Prospects for a New U.S. Strategic Orientation in the Middle East." *Mediterranean Quarterly* 25, no. 3: 27-39.

<sup>206</sup> Ibid.

<sup>207</sup> Ibid.

<sup>208</sup> Ibid.

worldwide energy security, will remain a U.S. priority<sup>209</sup>. Another reason given is that terrorism will not decline in the region if the U.S. ceases to buy oil because terrorism is not funded by oil<sup>210</sup>. The other argument supporting this view is regardless if the U.S. energy independent or not, other large consumers of oil such as China will fuel geopolitical challenges<sup>211</sup>. Luft (2014) argues U.S. independence from Middle Eastern oil is not a factor in the decision to reduce military and diplomatic involvement in the region<sup>212</sup>. Only 9% of U.S. demand is met by imports from the Middle East<sup>213</sup>. In fact, historically, U.S. imports from the region never exceeded 14% of U.S. demand<sup>214</sup>. Luft argues that the price, not the origination of oil is what is vital to U.S. interests.

Then there is a more extreme neoconservative view that argues the U.S. does not simply need to obtain oil, they want to eliminate all potential competitors and safeguard the region politically and militarily to benefit from the global flow of Middle Eastern oil (Gokay 2015)<sup>215</sup>. The evidence from this view is critical in reference to the empirics section to understand the consequences of losing or maintaining certain regional alliances. Gokay (2015) notes the U.S. benefits from Middle East hegemony because it allows the U.S. dollar to act as a global reserve currency and dominate the finance of international economic transactions, including global trade and debt payments<sup>216</sup>. Dollar strength is key to U.S. economic global power it impacts the economy, the dollar's status as a reserve currency is beneficial to dealing with trade deficits and

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<sup>209</sup> Bryce, Robert. *Gusher of Lies: The Dangerous Delusions of "Energy Independence"*. New York, NY: Public Affairs, 2008.

<sup>210</sup> Ibid.

<sup>211</sup> Balestrini, Santiago. "The Nuclear Option for Long-Term Energy Independence: Report for the 2006/2007 Sam Nunn Security Program Energy Policy Exercise". Pp. 1-26.

<sup>212</sup> Luft, Gal. "What Does America's Energy Revolution Mean for China?." In February, Oxford Energy Forum, no. 95. 2014.

<sup>213</sup> Ibid.

<sup>214</sup> Ibid.

<sup>215</sup> Gokay, B. "Two pillars of U.S. global hegemony: Middle Eastern oil and the petrodollar." (2015).

<sup>216</sup> Ibid.

keeping domestic interest rates low. The dollar's global standing is not simply about economics, but rather deeply rooted in the geopolitical role of the U.S.

A "petrodollar" is a dollar earned by a country through the sale of oil<sup>217</sup>. In 1972-1974, the U.S. and Saudi Arabia negotiated an agreement to link the sale of oil to the dollar<sup>218</sup>. Under the U.S.-Saudi Joint Economic Commission, the U.S. agreed to provide technical support and military assistance in exchange for Saudi Arabia accepting only U.S. dollars for its oil. Since oil is the most important commodity critical to the basic function of all modern economies, countries buy and hold large reserves of dollars because they would not be able to purchase oil without dollars<sup>219</sup>. This system keeps the global demand for the dollar artificially high, benefiting U.S. security and economy by subsidizing increases in U.S. government military spending and American consumer imports<sup>220</sup>.

Additionally, with OPEC oil priced in U.S. dollars, the U.S. government benefits from a double loan<sup>221</sup>. The first portion is the U.S. can print dollars at almost no cost to buy oil and the U.S. economy does not have to generate goods and services since OPEC uses dollars for all traded goods and services<sup>222</sup>. The second and more important loan comes from fueling U.S. Treasury purchase<sup>223</sup>. Despite their extensive oil wealth, Middle Eastern countries failed to develop diversified economies making them reliant on Western imports for goods and services. The Nixon Administration (1969-1974) secretly coaxed Saudi Arabia to purchase U.S. treasury

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<sup>217</sup> Ibid.

<sup>218</sup> Wong, Andrea. The Untold Story behind Saudi Arabia's 41-Year U.S. Debt Secret. Bloomberg, May 2016

<sup>219</sup> Gokay, B. "Two pillars of U.S. global hegemony: Middle Eastern oil and the petrodollar." (2015).

<sup>220</sup> Ibid.

<sup>221</sup> Ibid.

<sup>222</sup> Ibid.

<sup>223</sup> Ibid.



bills and bonds<sup>224</sup>, subsidizing the U.S. economy drastically reducing the currency risk exposure of the U.S. economy.

This system also contributes to the weapon sales for petrodollar circulation<sup>225</sup>. The Middle East became the world's largest weapons importer since the early 1970s<sup>226</sup>. The U.S. gets dual benefit from the use of the dollar for oil going out and weapons for dollars coming in. This "petrodollar" system is fundamental and crucial for U.S. hegemony. The research conducted by Gokay provides an unpublicized yet very strong argument for why U.S. energy independence from oil imports should not be the driving factor in determining U.S. posture in the Middle East. The petrodollar system benefits U.S. national security immensely and provides good reason for the U.S. to keep Middle Eastern oil ample, inexpensive, and under U.S. influence.

There are many challenges to U.S. hegemony in the region. As the hegemon in the region, the U.S. is part of the internal and external security construct of the Gulf<sup>227</sup>. The current tensions are high between the region's dominant bi-polar powers, the GCC (mainly Saudi Arabia) on one side, and Iran on the other. Arab Gulf countries have several concerns about Iran. They suspect that Iran is directly supporting Shia minorities, an act considered as direct interference in their internal security. Iran sees U.S. hegemony and influence in the Middle East as a threat and continuously criticizes the strong U.S. ties with Arab governments<sup>228</sup>. Iran has always been

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<sup>224</sup> Wong, Andrea. The Untold Story behind Saudi Arabia's 41-Year U.S. Debt Secret. Bloomberg, May 2016

<sup>225</sup> Gokay, B. "Two pillars of U.S. global hegemony: Middle Eastern oil and the petrodollar." (2015).

<sup>226</sup> *World Military Expenditures and Arms Transfers*. Washington DC: U.S. Government Printing Office (1995).

<sup>227</sup> Ulrichsen, Kristian Coates. "Internal and external security in the Arab Gulf states." *Middle East Policy* 16, no. 2 (2009): 39.

<sup>228</sup> El-Katiri, Mohammed. The future of the Arab Gulf monarchies in the age of uncertainties. Army War College Carlisle Barracks Pa Strategic Studies Institute, 2013.

anxious about the U.S. presence in the region and sees forward deployed forces in American bases as an act a deterrence against Iranian power<sup>229</sup>.

The Arab concerns over Iran are not unfounded. In 2011, Iran released a study recommending that the country should play a major role in world affairs as the defender of all Muslims, to guard its national interest's, and become the beacon for exporting its revolutionary Islam throughout the world<sup>230</sup>. The study concludes that Iran is optimally situated geographically to become the dominant power in the Persian Gulf<sup>231</sup>. There are various territorial disputes between Iran and several GCC states<sup>232</sup>. El-Katiri (2013) thinks that a U.S. pull back could signal to Iran the green light to push for claiming disputed territories more aggressively, risking a conflict with the GCC and destabilizing the region further<sup>233</sup>. El-Katiri states there is a deep and broad underlying animosity between the GCC and Iran fueled by Iran's desire to become a regional power<sup>234</sup>. This perceived threat is also shared amongst non-Arab regional neighbors Israel and Turkey.

The mistrust and rivalry with Iran deepened following the U.S.-led war in Iraq (2003) because it profoundly changed the regional balance of power. Iran emerged as a dominant force in the region, threatening GCC countries by extending its influence on Shias across the region. This resulted in a regional power competition for influence between Saudi Arabia and Iran, with both countries engaging in proxy conflicts in Lebanon, Iraq, Syria, Bahrain, and Yemen. To counter Iran's regional influence, Saudi Arabia invested billions of petro-dollars in support of

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<sup>229</sup> Ibid.

<sup>230</sup> Mahboubeh Sadeghini, *Security Arrangements in the Persian Gulf: With Special Reference to Iran's Foreign Policy*, Reading, UK: Ithaca Press, 2011, pp. 200-201.

<sup>231</sup> Ibid.

<sup>232</sup> El-Katiri. Ibid.

<sup>233</sup> Ibid.

<sup>234</sup> Ibid.

its foreign policy goals<sup>235</sup>. This includes supporting counter-revolutionary regimes during the Arab uprisings as well as waging a regional proxy war against Iran<sup>236</sup>.

The conflict for regional hegemony between Iran and Saudi Arabia has serious implications on the region's balance of power. Both countries sought to increase their power and security by allying with others inside and outside the region<sup>237</sup>. Alghunaim (2014) observes that both Iran and Saudi Arabia's foreign policy follow the perspective of neorealism<sup>238</sup>. To strengthen its security and to broaden regional power, Iran allied with Russia, and other states followed such as Syria followed suit<sup>239</sup>. Similarly, Saudi Arabia historically allied with the U.S. and other regional states followed (e.g. UAE and Qatar).

However, the geopolitical developments since September 11<sup>th</sup>, the Iraq war (2003), and the Arab Spring (early 2011) caused major challenges to U.S.-Middle East policy. The last few years have brought the U.S. at a crossroads with its traditional Middle Eastern allies, specifically Saudi Arabia. The Iraq war in 2003 had the unintended consequence of tilting the balance of power of the Middle East towards Iran. The recent signing of the nuclear agreement will change that balance even further. Higher production from Iran and Iraq will lead to conflict within OPEC. Persistent budget deficits for OPEC members will lead to spending cuts and end up in unrest.

Saudi Arabia and the UAE had disagreements with the U.S. over its reaction to the Arab Spring and were concerned about the U.S. decision to dump Egypt's President Hosni

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<sup>235</sup> Leonard, Mark. *Connectivity wars: Why migration, finance and trade are the geo-economic battlegrounds of the future*. 2016.

<sup>236</sup> Ibid.

<sup>237</sup> Alghunaim, Ghadah. "Conflict between Saudi Arabia and Iran: An Examination of Critical Factors Inhibiting their Positive Roles in the Middle East." (2014).

<sup>238</sup> Ibid.

<sup>239</sup> Ibid.

Mubarak<sup>240</sup>. There was also concern over the eager engagement with the Muslim Brotherhood<sup>241</sup>. The Gulf perceives these events as a dramatic change in a long-standing U.S. policy. This makes them doubt the U.S. as a reliable ally, which will force them to seek alliances elsewhere to balance regional power.

The Arab Spring was just the start of U.S. and GCC regional security framework and policy disagreements. The Iran nuclear deal was even more troubling than the U.S. response to the Arab Spring, leaving Saudi Arabia further questioning the depth of U.S. commitment to their security. Ulrichsen (2009) argues the perceived ideological threat from Iran is under control by the GCCs bilateral integration under the U.S. security umbrella<sup>242</sup>. If this umbrella goes away, Iran may destabilize the region by holding true to threats it has made in the past. The legacy of Iranian ambition to attain regional hegemony alongside the presence of a substantial Shia population in GCC countries increases the likelihood of bipolar conflict.

Kinninmont (2015) hypothesizes that the nuclear agreement has intensified the political tensions between Iran and Saudi Arabia<sup>243</sup>. The Saudi military intervention in Yemen to counter Iranian-backed Houthi rebels supports her claim. On the other hand, Kinninmont argues that better relations between the U.S. and Iran could neutralize one of the biggest challengers to U.S. hegemony in the region and maintain a balance of power.

Saudi Arabia's anxieties is a result of the perception that the U.S. is disengaging from the Middle East<sup>244</sup>. Despite repeated U.S. assurances and leadership visits, questions have surfaced

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<sup>240</sup> Kahl, C., Gfoeller, M., Katz, M. N. and Kimmitt, M. T. (2014), Symposium: U.S. Commitments to the Gulf Arab States: Are They Adequate? *Middle East Policy*, 21: 1–33. doi: 10.1111/mepo.12067

<sup>241</sup> Ibid.

<sup>242</sup> Ulrichsen, Kristian Coates. "Internal and external security in the Arab Gulf states." *Middle East Policy* 16, no. 2 (2009): 39.

<sup>243</sup> Kinninmont, Jane. "Iran and the GCC: Unnecessary Insecurity." *Chatham House* 3 (2015).

<sup>244</sup> Nazer, Fahad. *Saudi-Egyptian Relations at the Crossroads*. The Arab Gulf States Institute in Washington, October 2015.

in Saudi Arabia about the U.S. commitment to the region<sup>245</sup>. There is suspicion that the U.S. is softening its stance on Iran, which makes Saudi rulers nervous. Their biggest fear is the U.S. may be seeking to build a new relationship with Iran at the expense of Saudi Arabia<sup>246</sup>.

Scholars from the Middle East Policy Council went to Capitol Hill to research the Gulf States' anxieties relating to U.S. policies in the Middle East, specifically with respect to Iran<sup>247</sup>. They concluded from interviewing policymakers dealing with the region that the U.S. is commitment exhausted<sup>248</sup>. The council found the major difference between the U.S. and the GCC is over Iran because the U.S. is perceived as only focused on Iran's nuclear armament and not their regional ambitions that will be carried through destabilizing activities<sup>249</sup>. The Council thinks the Obama administration is pivoting focus to deal with the security threats emanating from Asia and Russia. The U.S. might reallocate some of its forces to Asia or Europe, leaving Iran's destabilizing activities unchallenged.

O'Sullivan (2015) argues Iran's return to the international oil market will increase its power and lead to new forms of geopolitical competition, which will lead to further tension and conflict<sup>250</sup>. The GCC would prefer the U.S. to continue policing the Gulf while Iran seeks a regional security architecture<sup>251</sup>. This is unacceptable to GCC states because Iran would dominate this architecture due to its massive geographic and population size compared to the majority of the Gulf States.

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<sup>245</sup> Ibid.

<sup>246</sup> Ibid.

<sup>247</sup> Kahl, C., Gfoeller, M., Katz, M. N. and Kimmitt, M. T. (2014), Symposium: U.S. Commitments to the Gulf Arab States: Are They Adequate? *Middle East Policy*, 21: 1–33. doi: 10.1111/mepo.12067

<sup>248</sup> Ibid.

<sup>249</sup> Ibid.

<sup>250</sup> O'Sullivan, Meghan L. The Energy Implications of a Nuclear Deal between the P5+1 and Iran. July 14, 2015.

<sup>251</sup> Kinninmont, Jane. "Iran and the GCC: Unnecessary Insecurity." *Chatham House* 3 (2015).

The GCC faces heightened internal and external threats aside from the current tensions with Iran. With ISIL in Syria and Iraq, AQAP in Yemen and the Iranian influence all around them, Saudi Arabia is surrounded by a variety of dangerous nemeses. There are also many internal stability issues due to the GCC's population demographic trends and structural imbalances, which have serious long-term challenges<sup>252</sup>. Rapid population growth and inadequate employment opportunities are a major threat to long-term stability in the GCC<sup>253</sup>. The increased polarity of economic wealth and political resources distributed unevenly have the potential to strike at the heart of the rentier state model.

Bremmer (2016) views the Middle East as the most vulnerable to a geopolitical power vacuum and a top global security risk<sup>254</sup>. Saudi Arabia faces growing uncertainty due to the royal family internal power struggle. Bremmer thinks this will lead Saudi rulers to act more aggressively and heighten instability in the region. The military operation in Yemen is evidence to support Bremmer's prediction<sup>255</sup>. The royal family's internal strife, which threatens Saudi Arabia's stability, is due to a succession problem. All the founding King's sons are deceased and the remaining pool of candidates likely to be King will skip to the next generation for the first time in the Kingdom's history.

The GCC cannot handle serious regional security issues alone; a prime example is the current status of the failed Yemeni state. The Saudi Arabian military failed to produce any strategic results though its use of military intervention, and there is a lack of political or economic engagement to tackle the root cause of the Yemeni state failure and all its societal

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<sup>252</sup> Ulrichsen, Kristian Coates. "Internal and external security in the Arab Gulf states." *Middle East Policy* 16, no. 2 (2009): 39.

<sup>253</sup> *Ibid.*

<sup>254</sup> Bremmer, Ian. *Top Risks 2016*. Eurasia Group, January 2016.

<sup>255</sup> *Ibid.*

strains<sup>256</sup>. Even though the failing Yemeni state is a direct threat to the security and stability of the region, the GCC is not able to reach a consensus or invest the non-military resources to tackle the instability<sup>257</sup>.

Complicating the issue is King Salman's empowerment of his 30-year old son Mohammed bin Salman which has fueled frustration among the royal family<sup>258</sup>. While the struggle is unlikely to lead to a near-term power collapse, it contributes to the overall regional instability risk, especially dangerous when combined with the host of other threats discussed throughout this research. The GCC countries needs to leverage the power of external allies to guarantee their security. Since Saudi Arabia and the U.S. diverged fundamentally on Iran, they are contemplating the reliability of their traditional alliance with the U.S. and will consider pivoting to other alliances.

### **3.4 METHODOLOGY**

The balance of power theory is used to examine what Saudi Arabia and Iran are doing to strengthen their regional hegemony. Armament and alliances are the most prevalent policies these States use to pursue balance of power, so the empiric evidence will focus on these use cases. Alliances are more likely to occur with States dependent on Middle Eastern energy resources, involved in selling weapons to the region, or have other ideological similarities. I investigate use cases that highlight how the U.S. can promote stability using the balance of power theory in regional power competition between Saudi Arabia and Iran following the recent political developments (described previously). This includes understanding the viewpoints of various actors at the implications of the U.S. pivoting towards Iran after signing the nuclear deal

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<sup>256</sup> Ulrichsen. Ibid.

<sup>257</sup> Ibid.

<sup>258</sup> Ibid.

and furthering away from Saudi Arabia following the various regional security policy disagreements.

The current and potential future alliances that Saudi Arabia and Iran are establishing with outside powers will also be analyzed. It's important to understand the interests, motivations, and dynamics of the main actors with respect to geopolitical issues, energy demands, and balance of power. The countries evaluated include China, Russia, the U.S., GCC States (mainly Saudi Arabia), Turkey, and Iran. The use cases evaluated are from post-Arab Spring (2011) literature and beyond, and includes current events impacting the relevant actors and the region's balance of power. The three scenarios the U.S. could pursue are to remain allied with the GCC, make a pivot towards Iran, or disengage completely from the region. How competitors will react to the change in U.S. policy decisions is evaluated. The implications of these reactions to U.S. hegemony in the region is also discussed.

### **3.5 EMPIRICS**

#### **3.5.1 WEAKENING CURRENT ALLIANCES**

Saudi Arabia is more geographically isolated today with regard to its regional allies<sup>259</sup>. Egypt and Pakistan dodged requests to support the Saudi military intervention in Yemen<sup>260</sup>. The past conforming and smaller GCC countries are hedging their position by maintaining good relations with Saudi Arabia's rival, Iran. Saudi Arabia cannot depend on the alliance with OPEC because the organization is a debacle with the low oil prices. The alliance with Egypt is complicated because the country backed Russia's pro-Assad intervention in Syria<sup>261</sup>, directly opposing Saudi Arabia's political stance on the conflict.

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<sup>259</sup> Bremmer, Ian. Top Risks 2016. Eurasia Group, January 2016.

<sup>260</sup> Ibid.

<sup>261</sup> Ibid.



Weakening Saudi Arabia's position is the fact that some GCC allies maintain a good economic relationship with Iran despite unresolved territorial disputes (e.g. UAE and Qatar)<sup>262</sup>. The ascension of the Muslim Brotherhood during the Arab Spring strained relations between Saudi Arabia and other Sunni Countries<sup>263</sup>. In Tunisia and Egypt, the Muslim Brotherhood's rise revived worries in Saudi Arabia about a competing Sunni-Muslim government model. Qatar and Turkey on the other hand supported the Muslim Brotherhood and backed Syrian opposition groups that fought Saudi-backed Islamist groups<sup>264</sup>.

The events surrounding the Arab Spring strained relations between Saudi Arabia and Qatar. The U.S. has a heavy military presence in Qatar and therefore has some leverage and a strong relationship. Disengaging from the Middle East and leaving smaller states like Qatar to pursue a competitive and opposing policy increases the likelihood of conflict. Turkey is a major Muslim Brotherhood supporter, an enemy of Saudi Arabia, and the country competes with Saudi Arabia for regional power and leadership of the Sunni world.

Saudi Arabia lost one of its closest allies during the Arab Spring when Egypt's President Mubarak was overthrown. Nazer (2015) argues that currently Egypt and Saudi Arabia's relations are strained due to several significant policy differences<sup>265</sup>. Despite their differences, Egypt receives substantial financial support from Saudi Arabia; moreover the two countries share a common interest in potentially developing of an independent joint military to fill in the U.S.

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<sup>262</sup> El-Katiri, Mohammed. The future of the Arab Gulf monarchies in the age of uncertainties. Army War College Carlisle Barracks Pa Strategic Studies Institute, 2013.

<sup>263</sup> Soage Antepazo, Ana Belén. Saudi Arabia: A Regional Power Facing Increasing Challenges. Instituto Espanol de Estudios Estrategicos, December 2015.

<sup>264</sup> Gause III, F. Gregory. "Beyond sectarianism: The new Middle East cold war." *Brookings Doha Center Analysis Paper* 11 (2014): 1-27.

<sup>265</sup> Nazer, Fahad. Saudi-Egyptian Relations at the Crossroads. The Arab Gulf States Institute in Washington, October 2015.

power vacuum<sup>266</sup>. This force would intervene in regional crises and respond to non-state actors such as Islamic State of Iraq and the Levant (ISIL) and Al-Qaeda in the Arabian Peninsula (AQAP).

This development is dangerous to U.S. interests for several reasons. The first is the approach will likely combine Saudi Arabian money and high-tech weapons and military equipment acquired from the U.S. with Egyptian manpower and experience; as some have argued, this is a poor substitute for U.S. military presence. The second reason is Egypt is starting to reestablish its military relationship with Russia since the U.S. decided to freeze military support. In 2014, Egypt and Russia signed a protocol to expand bilateral military ties and shortly after reached a preliminary deal to purchase \$3.5 billion of arms from Russia<sup>267</sup>.

### **3.5.2 U.S. DISENGAGEMENT**

Saudi Arabia was disappointed in the U.S. decision to reduce military assistance to Egypt and vowed to make up for it. The alternative is Egyptian weapons purchases come from Russia. Russia exploited the opportunity by sending a military delegation to Cairo to discuss sales of MI-35 helicopters and MIG-35 fighter aircraft<sup>268</sup>. The trip marked the first return of Russian-Egyptian relations since 1972 when President Sadat expelled Soviet advisors<sup>269</sup>.

The rapid progression and expansion of economic and political ties with China, India, and Russia is creating new strategic linkages that are shifting the international relations of the region subtly away from the U.S. Russia is the world's second largest non-OPEC oil and gas producer. Its interest in the region revolves around competing for primary consumers, mainly

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<sup>266</sup> Ibid.

<sup>267</sup> Miller, Elissa and Svet, Oleg. The U.S. Should Prevent an Egyptian Shift to Russia. Middle East Institute, December 2015.

<sup>268</sup> DeGhett, Torie. "While Russia Makes War in Syria, It Makes Love in Egypt". Vice News, October 2015. <https://news.vice.com/article/while-russia-makes-war-in-syria-it-makes-love-in-egypt>

<sup>269</sup> Ibid.

Europe<sup>270</sup>. There is a risk that Russia may act deviously to destabilize the region to ensure its supply lines to Europe maximize its influence on the continent and the U.S.'s Western allies. Russia uses energy as a foreign policy tool, in order to maximize its power, security, and geopolitical advantages<sup>271</sup>.

The threat to U.S. hegemony if the U.S. pulls back from the region is that Saudi Arabia and Russia could establish an alliance based on weapons sales, energy coordination, and regional conflict resolution. Russia can use its regional influence to support Saudi Arabia's interests in Syria by removing Assad from power in exchange for weapons deals, higher oil prices to support each country's budget deficits, and colluding on oil supplies to the West. A Saudi Arabian-Russian alliance would combine two of the largest oil suppliers, which would make it possible to collude on demanding higher prices for oil to support Russian state needs.

With more unchecked power in the region, Russia may pursue a destabilizing foreign policy due to low oil prices. Russia is a threat to the U.S.-European alliance, a key U.S. hegemony partnership, referred to as "the world's most durable and significant alliance, underpinning the global economic order and bolstering peace and stability for nearly seventy years."<sup>272</sup> European dependence on Russian energy has weakened this alliance with respect to dealing with Russia and Iran's regional power.

### **3.5.3 U.S. PIVOT TO IRAN**

On the other hand, a U.S. pivot to Iran not only balances the power between regional countries (Saudi Arabia and Iran), but also keep external forces out (e.g. China, Russia). The

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<sup>270</sup> Oil Security 2025: U.S. National Security Policy in an Era of Domestic Oil Abundance, Commission on Energy & Geopolitics, January 2014.

[http://www.secureenergy.org/sites/default/files/Oil\\_Security\\_2025\\_0.pdf](http://www.secureenergy.org/sites/default/files/Oil_Security_2025_0.pdf)

<sup>271</sup> Elena Kropatcheva, He who has the pipeline calls the tune? Russia's energy power against the background of the shale "revolutions", Energy Policy, Volume 66, March 2014, Pages 1-10, ISSN 0301-4215, <http://dx.doi.org/10.1016/j.enpol.2013.10.058>.

<sup>272</sup> Bremmer, Ian. Top Risks 2016. Eurasia Group, January 2016.

nuclear agreement means a possible partnership between Iran, Turkey, and the West to transport energy to Europe through Syria and Turkey<sup>273</sup>. The Iran deal deprives Russia of one of its most important bargaining positions. The deal has the potential to strengthen U.S. global hegemony against Russia's expansionist policies by depriving the country of hard currency to check its power and force a change in their behavior.

As the Gulf's share of energy production increases, the most significant increase is going to Asia<sup>274</sup>. This will increase the strategic importance of the region to Asian countries who will want a stake in regional affairs. If the past is any indication of predicting future actions, then the U.S. has a legitimate security threat. China and India have already reacted with muscular deployment of naval forces to protect their own maritime security interests in the region<sup>275</sup>. India is even more energy dependent on the Middle East region because, unlike China, which can easily get energy imports from Russia due to geographic proximity, the region is India's only close source of oil and gas<sup>276</sup>. India's oil dependence will turn the balance of power in the region into a multipolar system in which other powers compete against U.S. regional hegemony for influence. India views the Gulf as an intrinsic part of its broader neighborhood<sup>277</sup>. India signed defense cooperation agreements with both Qatar and Oman on maritime security, data sharing, and to work through common threats<sup>278</sup>.

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<sup>273</sup> Shabaneh, Ghassan. "Putin's Moment in the Middle East." *Al-Jazeera Center for Studies* (2015).

<sup>274</sup> Ulrichsen, Kristian Coates. "Internal and external security in the Arab Gulf states." *Middle East Policy* 16, no. 2 (2009): 39.

<sup>275</sup> *Ibid.*

<sup>276</sup> Luft, Gal. "Dependence on Middle East energy and its impact on global security." In *Energy and environmental challenges to security*, pp. 197-210. Springer Netherlands, 2009.

<sup>277</sup> Ulrichsen, Kristian Coates. "Internal and external security in the Arab Gulf states." *Middle East Policy* 16, no. 2 (2009): 39.

<sup>278</sup> *Ibid.*

China is a major buyer of Middle Eastern oil, doubling its import from 2007 to 2012 to 3.1 MBD<sup>279</sup>. The implication is China is important to the region as an alternate consumer to Western markets, which can use the power of consumption or alternative energy to hurt the Middle Eastern suppliers. The U.S. and Europe are likely to cut back imports from the Middle East region meanwhile rapid growth from China and other Asian importers could mean a balance of power shift to Asia. Europe imports as a whole declined, importing 3.8 million barrels per day (MBD) in 2012, a quarter less than what it had in 2007<sup>280</sup>. China is the largest oil importer in the world and its demand for oil will continue to grow at a dramatic pace to support its main concern of maintaining economic growth<sup>281</sup>. China has an aggressive record of establishing alliances to secure oil supplies through contracts, investments, and favorable loans. Its projected energy demand will intensify and so will its assertion to project global power on regions that impact its economy.

Meanwhile China constructed a naval base at the Pakistani port of Gwadar, close enough to the mouth of the Strait of Hormuz<sup>282</sup>, but not too close to the GCC to raise U.S. suspicion. Although China pursued a no strings attached policy with sub-Saharan countries in exchange for oil exports, these countries began shifting away from the West towards China geopolitically<sup>283</sup>. These gravitational pulls are expected since deep economic ties shift influence towards partners with mutual interests. This same scenario will play out between China and the Middle Eastern countries if the U.S. pulls back. China is becoming increasingly susceptible to oil

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<sup>279</sup> Oil Security 2025: U.S. National Security Policy in an Era of Domestic Oil Abundance, Commission on Energy & Geopolitics, January 2014.

[http://www.secureenergy.org/sites/default/files/Oil\\_Security\\_2025\\_0.pdf](http://www.secureenergy.org/sites/default/files/Oil_Security_2025_0.pdf)

<sup>280</sup> Ibid.

<sup>281</sup> Ibid.

<sup>282</sup> Ulrichsen, Kristian Coates. "Internal and external security in the Arab Gulf states." Middle East Policy 16, no. 2 (2009): 39.

<sup>283</sup> Oil Security 2025: U.S. National Security Policy in an Era of Domestic Oil Abundance, Commission on Energy & Geopolitics, January 2014.

disruptions; they will do everything in their power to fight for regional power. China is Iran's largest oil and gas importer and established energy deals valued at \$100 billion. The bond formed by this alliance almost guarantees China will use its veto power in the UN Security Council to protect Iran against future U.S. sanctions. As China's oil demand grows, so will its involvement in Middle Eastern politics<sup>284</sup>. China is likely to provide the region's exporters diplomatic support and weapons sales.

Increased economic and security inter-dependence is generating cooperation between the Middle East and East Asia and the rise of China in the region is likely to lead to confrontation with the U.S.<sup>285</sup>. Saudi Arabia's King Salman's visit (2014) to China focused on economic cooperation<sup>286</sup>. There is a military relationship possibility as well because Saudi Arabia purchased East Wind ballistic missiles in the 1980s<sup>287</sup>.

Although China is a main adversary fighting for influence over the Middle East, it shares common regional interests with the U.S. with respect to energy, and there is a chance for coordination on a variety of efforts including shale oil development, supply disruptions, response initiatives, and maritime security. I argue a strategic reason the U.S. should factor is not to allow China easy access to Middle Eastern oil so that the U.S. can sell oil to them to strengthen or power balance with China. The U.S. can increase energy exports to Asia and compete with Middle Eastern countries for that market share. This will strengthen the U.S.

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<sup>284</sup> Luft, Gal. "Dependence on Middle East energy and its impact on global security." In *Energy and environmental challenges to security*, pp. 197-210. Springer Netherlands, 2009.

<sup>285</sup> Ehteshami, Anoushiravan, and Yukiko Miyagi, eds. *The Emerging Middle East-East Asia Nexus*. Vol. 36. Routledge, 2015.

<sup>286</sup> Yamada, Makio. "Saudi Arabia's Look-East Diplomacy: Ten Years On." *Middle East Policy* 22, no. 4 (2015): 121-139.

<sup>287</sup> Lewis, Jeffrey. "Why Did Saudi Arabia Buy Chinese Missiles?" *Foreign Policy*, January 2014.

dollar and improve the trade balance with China. U.S. hegemony means having some influence over where the region's oil is sold, preferably not to global markets strategic to the U.S.

The destination of Middle Eastern oil exports will continue to pivot eastward to non-OECD Asian countries as Western demand declines<sup>288</sup>. China and India are the primary drivers of demand. China will seek to convert its growing economic relationship into political influence<sup>289</sup>. Realism and balance of power theory suggests it will. Domestic oil abundance allows the U.S. to pursue policy changes in two key global oil epicenters: China and the Middle East. The two epicenters are not mutually exclusive because China is dependent on Middle Eastern energy.

#### **3.5.4 IMPLICATIONS OF U.S. POWER VACUUM**

Issues of energy dependence and security of access to regional resources give other external powers a stake in regional security. If the U.S. leaves a power vacuum, other global powers thirsty for energy supplies will rush in to fill the void. A U.S. power vacuum can also open the door for external rivals to meddle in the region's affairs and harm U.S. interests. Russia's recent actions in Syria are aimed at ensuring instability in the region<sup>290</sup>. Its intervention helps prevent the creation of a trans-Syrian energy pipeline to hinder Saudi Arabian attempts to increase their share of the European energy markets<sup>291</sup>. Leonard (2016) argues Russia will undertake further actions to increase the probability of a major war in the Middle East<sup>292</sup>. Russia could also increase its military presence and scope of operations, arm rival states to try to cause turmoil, all with the aim of causing a significant rise in oil prices and protecting market

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<sup>288</sup> Oil Security 2025: U.S. National Security Policy in an Era of Domestic Oil Abundance, Commission on Energy & Geopolitics, January 2014.

[http://www.secureenergy.org/sites/default/files/Oil\\_Security\\_2025\\_0.pdf](http://www.secureenergy.org/sites/default/files/Oil_Security_2025_0.pdf)

<sup>289</sup> Ibid.

<sup>290</sup> Leonard, Mark. Connectivity wars: Why migration, finance and trade are the geo-economic battlegrounds of the future. 2016.

<sup>291</sup> Ibid.

<sup>292</sup> Ibid.

share by cutting off Middle Eastern supply lines to Europe<sup>293</sup>. Radical extremism and transnational terrorism could also flourish after a U.S. power vacuum<sup>294</sup>. Over the past year, the rise of ISIS materialized into a real threat to the internal security and external stability of the region.

### **3.5.5 IMPLICATIONS OF U.S. PIVOT TO IRAN**

A U.S. pivot to Iran also has pros and cons. The peacefully negotiated resolution with Iran over the nuclear program will lead to a removal of sanctions against Iran's economy and oil industry. Iran will immediately seek to return exports to previous levels. Iran's oil minister recently announced that the country is targeting an output level of 4.2 MBD<sup>295</sup>. The market is already oversupplied due to the Saudi-driven battle for market share. Iran's supply will add to the global excess supply and put more downward pressure on prices, exacerbating the regional risks associated with government deficits. Persistent budget deficits will lead to discontent and political unrest and could lead to regional competitors acting more aggressive to secure other sources of power as the economic and political power provided by oil revenue declines.

Saudi Arabia is drifting away from the U.S. because of serious political differences it has over Syria and Iran. The Iranian threat combined with U.S. decisions on Syria and nuclear negotiations with Iran is already showing evidence of threatening the balance of power in the region<sup>296</sup>. The GCC is already starting to take regional security matters in their own hand, including dominating recent post-war engagement with Afghanistan<sup>297</sup>. Additionally, Saudi

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<sup>293</sup> Ibid.

<sup>294</sup> Ulrichsen, Kristian Coates. "Internal and external security in the Arab Gulf states." *Middle East Policy* 16, no. 2 (2009): 39.

<sup>295</sup> Oil Security 2025: U.S. National Security Policy in an Era of Domestic Oil Abundance, Commission on Energy & Geopolitics, January 2014.

[http://www.secureenergy.org/sites/default/files/Oil\\_Security\\_2025\\_0.pdf](http://www.secureenergy.org/sites/default/files/Oil_Security_2025_0.pdf)

<sup>296</sup> Ulrichsen, Kristian Coates. 2014. "The Persian Gulf States and Afghanistan: Regional Geopolitics and Competing Interests." *Asia Policy* no. 17: 47-53. International Security & Counter Terrorism Reference Center,

<sup>297</sup> Ibid,



Arabia undertook strategic steps to consolidate its place as a regional superpower<sup>298</sup>. These measures are due to the perceived U.S. disengagement and fears of Iran's ambitions<sup>299</sup>. Saudi Arabia became the largest importer of weapons, spending around \$6.46 in 2014<sup>300</sup>. They have also taken part in the air-bombardment in the U.S.-led campaign against ISIL<sup>301</sup>. However, since the nuclear agreement was reached, Saudi Arabia have embarked on their own to launch operation (called Decisive Storm) against the Iran-backed Houthi rebels in Yemen.

The U.S. tried to use the disarmament method in the balance of power against Iran to promote regional stability. The West's strategy to halt Iran's nuclear program by isolating it diplomatically strengthened its relations with Russia and other energy producing central-Asian countries<sup>302</sup>. Iran also utilized its energy resources to purchase diplomatic protection from China and India. Iran on the other hand is in better economic shape than the GCC to deal with depressed oil prices and use the opportunity to gain more power over a limited Saudi Arabia. Iran's economy is more resilient due to the fact it's been operating despite oil sanctions against its oil-dominated economy. Once the oil export sanctions are lifted, their oil elastic economy is more rigid and will give them an advantage over the GCC and improving its chances to tilt the power balance inward.

Recalling the balance of power theory, Morgenthau's (1948) argued the danger of using the arms race approach to balance power is unstable<sup>303</sup>. This point is worthy of highlighting because it's been the U.S. approach in the region, specifically supporting Iraq against Iran in

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<sup>298</sup> Soage Antepazo, Ana Belén. Saudi Arabia: A Regional Power Facing Increasing Challenges. Instituto Espanol de Estudios Estrategicos, December 2015.

<sup>299</sup> Ibid.

<sup>300</sup> Ibid.

<sup>301</sup> Ibid.

<sup>302</sup> Luft, Gal. "Dependence on Middle East energy and its impact on global security." In Energy and environmental challenges to security, pp. 197-210. Springer Netherlands, 2009.

<sup>303</sup> Morgenthau, Hans, and Politics Among Nations. "The struggle for power and peace." Nova York, Alfred Kopf (1948).

their 1980s war, up until now: exporting 33% of worldwide exports (by far the top arms exporter on the planet). The Middle East was the main recipient (40% of total U.S. arms exports), with Saudi Arabia being top overall, followed closely by the UAE and Turkey, with Iraq, and Egypt in the top 10<sup>304</sup>.

The U.S. was pursuing a disarmament strategy with Iran up until the signing of the nuclear deal. The policy recommendation is under no condition should the U.S. sell weapons to Iran in the future or use the arms race strategy in the balance of power theory to maintain equilibrium. Continuing the pattern of arms sales to the region will make Iran feel threatened by the qualitative military edge (QME) of its neighbors. The U.S. policy has to take into its commitment to Israel to maintain a qualitative military against its Arab adversaries even though it sells them the most weapons<sup>305</sup>. Now the QME strategy must take into account Iran's emergence as a regional threat, and incorporate the fact that Iran will pursue arms purchases from other suppliers such as Russia or China, complicating the set of actors the U.S. must balance against for the region's control.

Morgenthau, on the other hand, argues that disarmament could be a form of establishing the balance<sup>306</sup>. The challenge with this approach for the U.S. and its allies is now there are non-State actors in the region that cannot be diplomatically forced to give up their weapons. Even with State actors, Morgenthau and other realists argued that the problem with the disarmament approach is that it is difficult to control among competing nations<sup>307</sup>. If the U.S. disengages with respect to arms sales without having a real strategy to disarm the region

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<sup>304</sup> Brown, Curtis and Cohen, Zachary. Here's who buys the most weapons from the U.S. CNN. May 2016.

<sup>305</sup> Briere, Andre and Wunderle, William. U.S. Foreign Policy and Israel's Qualitative Military Edge: The Need for a Common Vision. The Washington Institute. January 2008.

<sup>306</sup> Morgenthau, Hans, and Politics among Nations. "The struggle for power and peace." Nova York, Alfred Kopf (1948).

<sup>307</sup> Toledo, Peter. "Classic Realism and the Balance of Power Theory." Glendon Journal of International Studies/Revue d'études internationales de Glendon 4 (2005).

and eliminate non-State actor threats, Iran will buy weapons from Russia and Saudi Arabia from China<sup>308</sup>. These potential suppliers do not have the same QME agreement the U.S. has with Israel, possibly adding another complexity into the region's multi-polar distribution of power.

A U.S. power vacuum will result in lost alliances and increased likelihood of instability in the region. Not all conflicts in the region can be solved using military intervention. Soft power is a key tool used by the U.S. to ensure conflicts are peacefully solved in the region<sup>309</sup>. This can be direct application of soft power or through an ally of the U.S.<sup>310</sup>. Losing Saudi Arabia means losing an ally who positioned itself among the primary mediators in the Middle East's most intractable conflicts. U.S. energy production is unlikely to shield the U.S. economy from price fluctuations emanating from Middle East and even less likely to weaken U.S. commitment and attempts to influence the region.

There are several reasons for the U.S. to resume hard and soft power commitments to the region. First, Asia's growing energy dependence would open the door for Chinese, Indian, and Russian involvement in the region. Second, the U.S. weapons and aerospace industry exports totaled \$100 billion per year; half of these products go to Middle Eastern countries. The importance of aerospace and defense to the U.S. economy means the U.S. is dependent on remaining engaged in the region to prevent Chinese, Russian, and Indian weapons manufacturer from entering.

Saudi Arabia will not hesitate to shift to establish alliances with other weapons sellers. In the mid-1980s, when the U.S. refused to sell Saudi Arabia sophisticated weapons systems,

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<sup>308</sup> Dorraj, Manochehr. "The Future of Sino-Iran Relations." In *Toward Well-Oiled Relations?* pp. 206-215. Palgrave Macmillan UK, 2016.

<sup>309</sup> Kamrava, Mehran. "Mediation and Saudi foreign policy." *Orbis* 57, no. 1 (2014): 152-170.

<sup>310</sup> *Ibid.*

Saudi Arabia signed a huge arms deal with Britain<sup>311</sup>. This is evidence that they turn to who helps them meet their self-interest, which could mean the U.S. would hurt the income and soft power from arms sales. In fact, the nuclear deal caused Saudi Arabia to taken a drastic step towards realpolitik by establishing alliances with its sworn enemy: Israel. It was recently revealed at the Council on Foreign Relations in Washington that Saudi Arabia and Israel have been covertly conducting diplomacy in a series of meetings since 2014 to discuss Iran's growing strength as a regional power<sup>312</sup>.

The importance of the U.S.-Saudi Arabian alliance is also too big of threat to lose. Saudi Arabia is a key and reliable ally of the West against mutual enemies since the 1950s<sup>313</sup>. Its strategic importance to economic security is oil, while politically its conservatism made it a useful partner against anti-western ideologies such as Pan-Arabism and communism<sup>314</sup>. As a result, the West have systematically guaranteed its protection and turned a blind eye to its long list of human rights abuses<sup>315</sup>. Pulling out of the region hurts the U.S. ability to influence policy of our allies are conflicts of interests. Despite alliances, states are sovereign and autonomous self-preserving entities and so diverging interests are bound to arise. In 2011, the U.S. and Saudi Arabia adopted opposite stances on regional issues. In February 2011, Saudi Arabian leaders expressed strong dismay of what they saw as U.S. abandonment of President Hosni Mubarak in Egypt<sup>316</sup>.

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<sup>311</sup> Bahgat, Gawdat, and Robert Sharp. 2014. "Prospects for a New U.S. Strategic Orientation in the Middle East." *Mediterranean Quarterly* 25, no. 3: 27-39

<sup>312</sup> Graham, David. Israel and Saudi Arabia: Together at Last? *The Atlantic*, June 2015.

<sup>313</sup> Soage Antepazo, Ana Belén. Saudi Arabia: A Regional Power Facing Increasing Challenges. Instituto Espanol de Estudios Estrategicos, December 2015.

<sup>314</sup> *Ibid.*

<sup>315</sup> *Ibid.*

<sup>316</sup> Bahgat, Gawdat, and Robert Sharp. 2014. "Prospects for a New U.S. Strategic Orientation in the Middle East." *Mediterranean Quarterly* 25, no. 3: 27-39

Saudi Arabia will actively looking for alternative alliance, not to abandon the U.S. completely, but they have the urgent need to reinforce the U.S. security umbrella by developing other relations<sup>317</sup>. Back when Saudi Arabia's Prince Salman was the crown prince, he took trips to Pakistan, India, and Japan<sup>318</sup>. These trips were intended to show the U.S. that Saudi Arabia has other options in terms of alliances<sup>319</sup>.

Energy is seen as a means to an end, and actors are constantly balancing their economic and political interests, hence economic considerations can drive politics<sup>320</sup>. Saudi Arabia's geo-economic power rests on its strategic position in and its ability to exert influence in the oil market. Saudi Arabia's large oil reserve base and spare capacity serves as a deterrent against investment by oil suppliers because Saudi Arabia can open its taps to quickly undermine the profitability of any new or planned project. This is a double-edged sword for the U.S. now that it is a major producer because Saudi Arabia's strategic decisions may counter adversaries' (e.g. Iran) re-emergence as a key player in the global energy market but at the same time hurt the U.S.'s unconventional oil production industry.

### **3.6 CONCLUSION**

It is in U.S. interest to maintain its influence in the region and develop policies that result in a peaceful resolution. Understanding the appropriate regional security policies requires the U.S. to take into account the factors that inform the GCC's risk perception vis-à-vis Iran. U.S. oil production entering the marketplace creates opportunities and gains in national security. The U.S. can gain greater flexibility in dealing with foreign policy challenges in major oil-

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<sup>317</sup> Kahl, C., Gfoeller, M., Katz, M. N. and Kimmitt, M. T. (2014), Symposium: U.S. Commitments to the Gulf Arab States: Are They Adequate?. *Middle East Policy*, 21: 1–33. doi: 10.1111/mepo.12067

<sup>318</sup> Ibid

<sup>319</sup> Ibid.

<sup>320</sup> Leonard, Mark. *Connectivity wars: Why migration, finance and trade are the geo-economic battlegrounds of the future*. 2016.

producing countries and regions. This is illustrated by the nuclear deal with Iran and the lifting of sanctions despite severe protests by Saudi Arabia. The U.S. pursuit of an alliance with Iran, despite causing major disagreement with current allies, is a positive long-term strategic move. Theoretical realists do not recommend the formation of permanent alliances because they are unstable. Saudi Arabia should also take this into consideration with the permanent alliance it has with the U.S. It is best for all Middle Eastern regional States to remain pragmatic and improve their relationships with rival neighbors.

The U.S.'s pivot to Iran to even the balance of power could help prepare a foundation for all parties to reach a peaceful and diplomatic resolution for a variety of regional security issues, hence increasing U.S. influence in the region. By being friendly to both sides, the U.S. can mediate between deep-rooted rivalries and ideological differences that have grown to be a head-on competition for regional leadership. To avoid a power vacuum that guarantees an opening for U.S. competitors from increasing their influence in the region, the U.S. should continue supporting the security needs of allies in the region through smart power. This can be done by taking advantage of the diplomatic flexibility provided by energy independence to enhance national security. This includes supporting peaceful reform in autocratic oil producing countries to reform governments towards democratic societies. This will produce more stable powers and eventually keep the regions balance of power in equilibrium.

Putting pressure on oil-producing Middle East countries to adopt democratic and uncorrupt forms of government will build resilience to internal threats and peacefully resolve intra-regional conflicts. It is vital for the U.S. to work with Arab countries to secure the sustainable long-term development of their societies. The GCC needs to find a balance between reliance of the U.S. security umbrella versus rebalancing their autocratic model of governance, which is facing systematic structural problems. The time is overdue for the U.S. to move away

from decades of heavy military and intelligence operations to a diplomacy-led framework, with more flexible military deployments, supporting strong bilateral and regional initiatives, and support for civic societies and institutional building.

The rapid growth in domestic oil supplies and declining import dependence created the perception occasionally supported by U.S. policies, actions, or inactions that the U.S. is ready to disengage from the Middle East. This fear incentivized U.S. allies to begin seeking new security partners, a trend that would change the balance of power and weaken U.S. interests in the region. The Arab Spring proved that an unexpected and sudden regime change could occur in any Middle Eastern country leading to a number of internal and external known and unknown factors. The potential risk to the U.S. – as illustrated by overthrow of the Shah of Iran in 1979 – is the old regime supportive of U.S. interests in the region can easily be replaced by a regime that is not. It is in the best interest of the U.S. to foster stability of the current States and preempt threats to the current balance of power that would test the fragility of these States. This can be done by encouraging gradual political change to a more participatory form of democratic government and the implementation of real accountability measures. Also maintaining U.S. presence across the region is crucial to GCC stability and U.S. interests.

U.S. presence guarantees the security of GCC States against external threats such as Iran, and even provides each small GCC State with a balance of power against Saudi Arabia's dominance in the Arabian Peninsula. Physical U.S. presence in the GCC provides the U.S. with a range of strategic options to deal with external military threats and political leverage in relation to maintaining a balance of power. If the U.S. disengages, Saudi Arabia will likely seek alliances with actors that will have negative consequences on the region's balance of power. The problem with the potential Saudi Arabian pivot from the U.S. is that either China, Russia, or Pakistan is a pivot to unreliable partner. These countries cannot provide the same power projection

capabilities or military technology weapons the U.S. provides. In addition, the Gulf's primarily U.S.-supplied conventional military weapons will be useless without U.S. logistics and maintenance.

U.S. energy independence reduces its exposure to physical supply disruptions but the vulnerability to price shocks from the shortfalls still remain. The risk of conflict in the Middle East increases substantially if the U.S. does not maintain the status quo of the balance of power by remaining the regional hegemon. If the U.S. scales back, the balance of power theory predicts there will be a resulting power vacuum, which will be filled by regional competitors pivoting to establish alliances with other internal and external actors such as China and Russia. These actors have national security interests in conflict with the U.S. and therefore their alliance with Middle Eastern States will hurt U.S. global hegemony.



## **THESIS CONCLUSION**

The three chapters in this thesis center on the theme of energy security and foreign policy between the U.S. and Saudi Arabia. The stability and reliability of Saudi Arabia as a supplier of oil to the world plays a vital role in global economic growth and the daily lives of billions of people relying on energy around the world. Saudi Arabia is an important U.S. ally and a strategic energy security player because it steps up at times of global crisis to offset losses and stabilize markets (e.g. Iraq wars, post-hurricane Katrina, and the Libyan revolution).

Chapter 1 introduced Saudi Arabia's role in the global oil market as a swing producer. The main reason that would cause the Saudi government to shift policy and sacrifice short-term gain is the long-term protection of its market share. Chapter 2 concludes that the unconventional oil revolution can cause destabilization in Saudi Arabia. The significant dip in oil prices since 2015 has caused massive deficits and problems for the Saudi government to implement its rentierism social contract. The shale revolution will continue to keep oil prices low. Chapter 3 analyzed how shale oil enhances U.S. energy independence leads to a more flexible foreign policy, leading to deterioration of relations with Saudi Arabia and weakening U.S. hegemony in the region.

Since the primary shared interest in the U.S.-Saudi Arabian relationship is oil, this thesis portfolio examined why Saudi Arabia's role in the global oil market is important and what implications that role has on the U.S. The first paper answered why Saudi Arabia acts as a swing producer and provided reasons the U.S. can expect a shift in oil policy: to protect market share. Chapter 2 examined how Saudi Arabia relies on oil for internal and external stability, and how unconventional oil led by the U.S. could damage this power and eventually cause destabilization in Saudi Arabia. Chapter 3 analyzed if U.S. energy independence could cause a deterioration of relations with Saudi Arabia and possibly weaken U.S. hegemony in the Middle East.

While the relationship between the U.S. and Saudi Arabia has been volatile since 9/11, their shared interests helped them overcome many obstacles and both sides made sacrifices to ensure that diplomatic relations at the highest levels remain unstrained. Several major geopolitical developments that are relevant to the U.S.-Saudi alliance occurred since 9/11 and the ensuing war in Iraq and Afghanistan, including the U.S. advancement in shale oil extraction, the uprisings of the Arab Spring, and Iran nuclear framework agreement. These changes impacted Saudi Arabia's reliance on the U.S. protective umbrella, at the same time the U.S. relied on Saudi Arabia to keep oil supply secure and at a stable price.

Current U.S.-Saudi relations seem to have stabilized, but potential revolutionary changes in the Kingdom would be a disaster for American interests. Instability in Saudi Arabia would cause havoc in global oil markets and hurt the U.S. economic recovery. Saudi Arabia's instability will eventually weaken the U.S. influence in the region. Not only can internal dissent or external enemies spark such a revolution, disruptions in the energy market due to shale oil can unbalance the market that Saudi Arabia primarily depends on for national power. In addition, if the U.S. pivots to Iran or other regions of the world in neglect of Saudi Arabia and other Arabian Gulf states, the balance of power could tilt towards American rivals and increase the chances of destabilization in the region.

American isolationism is not an option unless the U.S. wants the region to collapse. Saudi Arabia's role as a swing producer will continue to be important for the foreseeable future meaning the country's stability is a priority regardless of how it is ruled. The U.S. must sincerely try to implement gradual change in the region towards democracy and peace for all Middle Eastern countries.

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# CURRICULUM VITAE

## Ammro Ragaban

### Experience Summary

Driven multi-discipline researcher with a diverse set of skills and 13 years of experience in the Defense and Intelligence industry. Experienced and educated in global security studies, business administration, and information technology systems engineering. Expert in Middle Eastern cultural and political dynamics, fluent in Arabic, and can provide corporate leadership and analytical support including:

- Quantitative and qualitative political science, economics, and technology research
- Strategic planning, leadership and management
- In-depth reports and presentations to senior military, government and corporate leaders

I have in-depth experience in acquisition, management, and leadership across a variety of challenging national security projects. In those projects I've successfully worked with teams and customers including senior executives to deliver timely and quality products and services. I wrote many analytical reports and gave effective presentations using custom-developed research and performance metrics. I've been recognized through numerous awards for leadership, communication, and relationship-building skills. I also work hard to collaborate across organizations at all levels with the ability and goal to "bring the corporation to bear".

### Professional Experience

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Raytheon Blackbird Technologies, Inc.  
Herndon, VA

**Principal Research Analyst**  
January 2012–Present

As **Project Measure of Effectiveness Lead**, developed and established custom measures of effectiveness metrics, benchmarks, and processes for cyber projects.

As **Principal Research Analyst** led a market analysis study for an air-domain security project for the Department of Defense.

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MITRE Corporation  
Mclean, VA

**Senior Information Systems Engineer**  
August 2008–January 2012

Served as **Organizer and Administrator** for MITRE’s Corporate Chief Engineer’s Technology Council. Researched projects across the non-profit research and development corporation and organized presentations for senior vice presidents of research that had corporate-wide and customer-wide impact.

As Service and Joint Intelligence **Senior Engineer**, provided direct support to the Office of the Secretary of Defense (USD)–led Intelligence, Surveillance and Reconnaissance (ISR) Task Force as a subject matter expert in researching ISR standards, technologies, and programs. Familiar with dealing with allied militaries and issues including IT interoperability and security.

As **Arabic language translator** and counter-terrorism tool evaluator, applied Arabic language, cultural, and counter-terrorism knowledge to evaluate and improve counter-terrorism tools. Performed research and Arabic translation as part of a special research project for intelligence R&D sponsor.

As **Deputy Lead Navy C4ISR Engineer**, supported U.S. Navy Chief Architect of Program Executive Office Integrated Warfare Systems to implement a Collaborative Development Environment to acquire, upgrade, and maintain Naval Combat Systems.

As **DISA NETOPS Engineer**, conducted IT requirements engineering review to support the development of the DISA Command Center, which exercises the authority of the DISA Director for C2 of DISA’s operations and services.

As Global Command and Control System-Maritime (GCCS-M) **Program Office Rep to DISA**, advised PMW-150 GCCS-M program office in preplanning for a technical exchange with GCCS-Joint.

As Navy Component Program Office (CPMO) **Lead Architecture Engineer**, represented the CPMO in the Net Enabled Command Capability (NECC) architecture, implementation, cross-functional, integration, and mission capability working groups to support engineering tasks and products.

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SPAWAR Systems Center  
Charleston, SC

**Computer Engineer/ Project Manager**  
May 2003–August 2008

As Command & Control **Build Manager and Program Liaison**, served as Principal Engineer who assisted the program manager in managing, coordinating, and leading the activities for the development, integration, testing, and implementation of five joint software projects for the Navy, Army, and Air Force in a \$3.2 billion program.

As **Lead System Integrator Architecture Team Lead**, defined the system architecture for \$100 million/year program composed of more than 20 C2 systems that support the Navy war-fighting capabilities. As Service Oriented Architecture Team Lead, led and coordinated several Service Oriented Architecture efforts across the Command.

## Education and Training

M.A., Global Security Studies, Johns Hopkins University, May 2016 (estimated graduation)

**Courses:** Strategic Nonviolent Conflict, Statistics and Political Analysis, Mass Media and American Politics, Global Political Economy, Energy and Environmental Security, Radicalization and Deradicalization in Terror Networks, Military Strategy & National Policy, American National Security, Statecraft and Soft Power

Master of Business Administration (MBA), University of Florida, Gainesville, FL, 2008

B.S., Computer Engineering, University of South Carolina, Columbia, SC, 2003

## Training/Certifications/Awards

**Training:** Statistics and Political Analysis (using R), MITRE SEWorks Systems Engineering Program Graduate, Amazon Web Services Business & Technical Professional Accreditation

**Certifications:** Contracting Officer Representative (COR) certified; Defense Acquisition Workforce Improvement Act (DAWIA) Level II certified

**Awards:** Blackbird Award for project work (June 2012), MITRE Bravo Zulu award (September 2009); MITRE Bravo Zulu award (July 2009); NECC Technical Employee of the Quarter award (January 2008); SPAWAR On the Spot award (February 2008); NECC performance award (June 2007)

**Languages:** Fluent in Arabic reading, speaking, writing at native level. Dialects spoken include Standard and Gulf, understands Egyptian and Levant dialects