

AMERICAN UNIVERSITY OF BEIRUT

CAN OIL AND GAS DEVELOPMENT BE A DRIVER FOR
PEACEBUILDING?
THE POTENTIAL FOR RECONCILIATION AND
RECONSTRUCTION IN LEBANON FROM THE
EXPLOITATION OF ITS HYDROCARBON RESOURCES

by
ALEXANDER BASIL BROWN

A thesis
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for the degree of Master of Arts
to the Department of Political Studies and Public Administration
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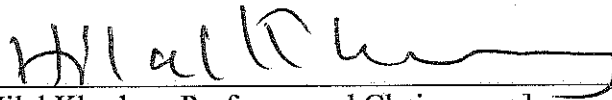
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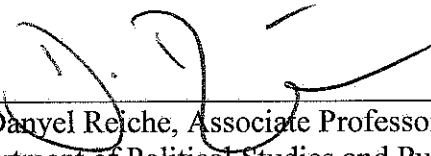
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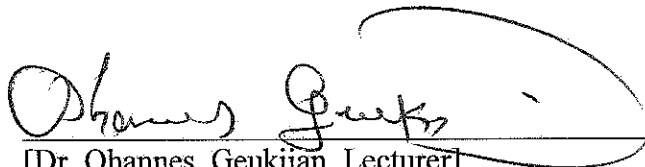
[Dr. Hilal Khashan, Professor and Chairperson]
[Department of Political Studies and Public Administration]

Advisor



[Dr. Danyel Reiche, Associate Professor]
[Department of Political Studies and Public Administration]

Member of Committee



[Dr. Ohannes, Geukjian, Lecturer]
[Department of Political Studies and Public Administration]

Member of Committee

Date of thesis defense: April 25, 2016

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AN ABSTRACT OF THE THESIS OF

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Title: Can oil and Gas Development be a Driver for Peacebuilding?
The Potential for Reconciliation and Reconstruction in Lebanon from the
Exploitation of its Hydrocarbon Resources

Lebanon suffers from many characteristics of a post-conflict state, such as a faltering economy, ineffective and inefficient government, poor infrastructure especially in sectors of energy and electricity, and internal or regional tensions that drive fears of renewed conflict. In light of its internal deficiencies, Lebanon should undertake peacebuilding efforts so as to mitigate the risk of future conflict by improving critical sectors of the country, and establishing a foundation for future peace. This thesis discusses how the relatively recent discovery of Lebanon's oil and gas reserves represents a potential driver for change and peacebuilding. Research demonstrates that oil and gas development has the potential to improve many sectors of the Lebanese state, including those issues that are most vital to Lebanon's peacebuilding efforts, such as economic advancement, nation-wide cooperation, and infrastructure improvement. Reforming government and political institutions presents the greatest challenge to Lebanon, and also the greatest impediment to achieving successful oil and gas production. However, certain factors of the hydrocarbon development process such as increased wealth, the development of new laws and regulations, nationwide education, and pressure from civil society for transparency and responsible policy, will all increase the likelihood of governance reform. In assessing how oil and gas could lead to peacebuilding between Lebanon and Israel, territorial disputes in which valuable resources are located present an opportunity for cooperation and joint development. However, the history of tension between Lebanon and Israel, the lack of diplomatic relations, and lack of any will for peace, make the prospects of even basic cooperation unlikely. Finally, this thesis recognizes that there are many inherent risks to using oil and gas as a starting point for peacebuilding efforts. Those hazards have been addressed in detail, and recommendations are given for how Lebanon can mitigate those risks, such as by striving to follow the Norwegian example, and by the continued efforts of NGOs and civil society organizations.

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LIST OF ABBREVIATIONS

EDL	Electricité Du Liban
EEZ	Exclusive Economic Zone
EITI	Extractive Industries Transparency Initiative
IDF	Israel Defense Forces
JDA	Joint Development Agreement
LNG	Liquefied Natural Gas
LOGI	Lebanese Oil and Gas initiative
LPA	Lebanese Petroleum Administration
OECD	Organization for Economic Co-operation and Development
OPES	Organization for Petroleum and Energy Sustainability
OPRL	Lebanese Offshore Petroleum Resources Law
Tcf	Trillion Cubic Feet
TUA	Transboundary Unitization Agreement
UN	United Nations
UNIFIL	United Nations Interim Force in Lebanon
USGS	United States Geological Survey
USIP	United States Institute of Peace
WHO	World Health Organisation

INTRODUCTION

Although Lebanon's civil war ended in 1989, the country still retains many characteristics of a "post-conflict state." Many of these conditions are remnants of the destructive civil war, but they have also been aggravated by other conflicts, especially the 2006 war with Israel, and spillover effects from the civil war in neighboring Syria. Today, Lebanon suffers from a faltering economy, poor infrastructure especially in sectors such as water and electricity, sectarian tensions, and regional strains and events that drive fears of renewed conflict. The political sector is particularly in need of repair, as political divides and inefficiencies – largely stemming from the Taif agreement – continue to inhibit the country. There has been a lack of political reform, and the government has been paralyzed to the point of being unable to elect a president or even collect garbage. Serious tensions continue to fester between Lebanon and its neighbor Israel, adding yet another source of potential violence. In light of its internal deficiencies, and domestic and regional tensions, Lebanon should undertake peacebuilding efforts so as to mitigate the risk of future conflict by improving critical sectors of the country, and establishing a foundation for future peace. The relatively recent discovery of Lebanon's oil and gas reserves represents a possible driver for change and peacebuilding. There is a high probability of significant offshore hydrocarbon reserves, the development of which could help stimulate meaningful peacebuilding practices across many of Lebanon's critical issues.

A. Methodology

The central question of this thesis is: Can oil and gas development be a driver for peacebuilding efforts, and to what extent can such development lead to positive change for Lebanon, both internally, and externally? In order to answer this question, the thesis employed a qualitative methodology consisting of in-depth literature reviews and comprehensive research, supplemented by interviews, and material obtained from conferences and lectures held by relevant industry experts.

The first step of the methodology was to establish the basis of a need for peacebuilding, by proving that Lebanon has been plagued by conflict. This was accomplished by completing a comprehensive review of the Lebanese civil war, and by demonstrating that in the years following the end of the civil war, Lebanon has been, and continues to be impacted by violence and unrest. By revealing that Lebanon remains in conflict, and that many of its ills are directly linked to conflict, it could then be argued that there exists a need for peacebuilding efforts to help prevent the outbreak of future violence, and to foster a state of peace both internally, and with its neighbors. The next step of the research process was to demonstrate that Lebanon possesses deficiencies associated with a post-conflict state, and that the country is in need of rebuilding. Detailed research was conducted on relevant characteristics of Lebanon, such as its economy, politics, and infrastructure. Research revealed that those aspects of Lebanon are in need of considerable repair and reform. Underdevelopment and conflict are deeply related issues that exacerbate one another, creating almost a self-sustaining cycle of violence and state deficiencies. However, the presence of hydrocarbon reserves is a uniquely influential factor that has the potential to break that negative cycle. The

discovery of oil and gas presents a possible opportunity to lead to successful peacebuilding efforts both within Lebanon, and also between Lebanon and Israel.

After thoroughly identifying the need for peacebuilding efforts, it was necessary to establish a theoretical framework of peacebuilding processes. This was achieved by conducting a review of the dominant literature of peacebuilding, giving special focus to the role of natural resources in peacebuilding efforts. Since peacebuilding represents a core issue of this study, it was critical to establish a backbone of theories on peacebuilding, so as to build an applicable approach for Lebanon. Drawing from the theoretical background, a framework of peacebuilding efforts surrounding hydrocarbon production was developed specific to Lebanon, its characteristics, and its needs:

Successful peacebuilding in Lebanon must be a cooperative process spanning sects and communities. It should foster economic development and improve infrastructure, and it should include efforts to reform government and political processes. Finally, peacebuilding should seek to improve Lebanon's regional security especially by reducing conflict with Israel.

The development of Lebanon's hydrocarbon resources was analyzed within the peacebuilding framework, in order to assess how oil and gas production might lead to positive changes for each of the identified pillars. For each aspect of the peacebuilding process, the role of oil and gas production was discussed according to the potential impact it could have, while also addressing the relevant risks or impediments. Analysis was complemented by in-depth research on the relevant topics. Semi-structured interviews were conducted with Mounir Rached, World Bank advisor at the Ministry of Finance of Lebanon, and Melani Cammett, Professor of Government at Harvard University specializing in political economy of the Middle East. In addition, informal interviews were carried out with Lebanese citizens and students to gauge their

awareness about Lebanon's hydrocarbon potential, and their perception of how development projects might impact the country. Prior to each of the structured interviews, a set of questions was created according to the expertise and background of the subject. Discussions were held either in person, or using Skype web chats. Informal interviews did not rely on pre-written discussion topics, and consisted of unstructured conversations. Research was also collected by attending a major conference in Beirut arranged by the Organization for Petroleum and Energy Sustainability, including participants from the Lebanese government, several oil and gas experts, economists, NGO leaders, and academics. Research was also derived from four lectures, by Mounir Rached of the Ministry of Finance of Lebanon, Sarah Bou Atmeh, Petroleum Management consultant at the Ministry of Finance, Melani Cammett, professor at Harvard University, and Dr. Mamdouh Salameh, International Oil Economist and consultant for the World Bank. Informal interviews were conducted at events and lectures to gather additional information relevant to the research topic.

One of the challenges faced when attempting to assess the condition of Lebanon's economy and infrastructure was the lack of reliable and current data. As a result, economic forecasts are sometimes based off of data that might be lagging by several years. In all cases, findings and analysis were presented according to the most reliable and applicable data available. Another challenge was in recruiting interview participants. Many individuals, especially those who hold important government or corporate positions, were unwilling, or unresponsive to interview requests. The time restrictions for this study also limited how many interviews could be conducted, and constricted the window for recruiting participants.

B. Structure of the Thesis

This thesis seeks to determine the impacts that oil and gas development in Lebanon could have on areas critical to successful peacebuilding practices. Research will demonstrate that the pursuit of hydrocarbon development in Lebanon has the potential to contribute to positive internal reform in important pillars of peacebuilding, such as economic development and restoring basic services, improving and reforming government and political processes, and promoting internal cooperation. Furthermore, the possibility of hydrocarbon development leading to peacebuilding will also be addressed in a regional context, specifically as it relates to Lebanese-Israeli relations, and the maritime border dispute.

While hydrocarbon production does present an opportunity for positive change, it also carries a significant potential for failure and even increased conflict, as other countries' experiences with oil or gas have demonstrated. Thus, the potential risks and roadblocks to successful resource development and peacebuilding must also be identified and discussed.

Chapter 1 of this thesis will introduce a contextual background of Lebanon, beginning with conflicts that have come to characterize and influence many aspects of the Lebanese state. The chapter proceeds in chronological order, first describing Lebanon prior to 1975 and the events that led to the civil war. An overview of the civil war and the impact it had on the country will be discussed, followed by a summary of the war with Israel in 2006, and the impact that the Syrian conflict has had, particularly the influx of refugees into Lebanon. Finally, chapter 1 will conclude by highlighting a currently ongoing threat of conflict, the maritime territorial dispute between Lebanon and Israel.

In Chapter 2, the thesis will proceed with an overview of Lebanon, providing a detailed synopsis of the conditions of relevant characteristics of the Lebanese state. The chapter will focus on the post-conflict characteristics of Lebanon, summarizing rebuilding efforts after the civil war, as well as the condition of Lebanon's economy and infrastructure, the energy and electricity sector, and government and political institutions. Having detailed Lebanon's history of conflict, and the resulting deficiencies of the state, it will be suggested that Lebanon should undertake peacebuilding efforts to help repair and prevent conflict, and that the discovery of hydrocarbon resources could be the impetus for successful peacebuilding efforts.

Chapter 3 will present a review of literature and theories on peacebuilding practices, and will develop a framework for peacebuilding practices that are applicable to Lebanon and the needs of the country. Different aspects of peacebuilding will be discussed in detail, giving special emphasis to theories surrounding the role of natural resources and peacebuilding. The case of cooperation between Israel and Jordan over water resources will be provided, representing an example of the potential for peacebuilding between two states using natural resources.

In chapter 4, oil and gas development in Lebanon will be discussed within the peacebuilding framework. The chapter will analyze how hydrocarbon production can impact important pillars of peacebuilding such as cooperation, economic and infrastructure development, government reform, and conflict mitigation.

Chapter 5 will continue the analysis of the role of hydrocarbons, demonstrating the risks that are inherent to valuable natural resources, particularly oil and gas. The chapter will define two of the most common side effects of hydrocarbon wealth, the resource curse and the Dutch disease, and how they might relate to the case of Lebanon.

The chapter will present suggestions of how Lebanon could mitigate the risks associated with hydrocarbon development, including some experiences of other countries that Lebanon can learn from.

The final chapter 6 will summarize the findings of this study, and conclude by providing recommendations and suggestions for future analysis.

CHAPTER I

LEBANON: A HISTORY OF CONFLICT

The central question of this thesis is to assess how oil and gas development can be a driver for peacebuilding in Lebanon. Peacebuilding is concerned with ending conflict and preventing the resurgence of conflict, as well as strengthening state capacity. For peacebuilding efforts to be relevant, the need for such efforts must be identified, especially by demonstrating that conditions of conflict exist. The past 40 years of Lebanon's history have been marred by violence and conflict, both internally and externally. The most notable conflict is certainly the Lebanese civil war, which caused damage to all aspects of the country, and from which Lebanon is still trying to recover. Recovery efforts have been thwarted by the resurgence of other significant domestic and regional conflicts, namely the 2006 war with Israel, the Syrian war and influx of refugees into Lebanon, and enduring tensions with Israel most recently manifested in a maritime border dispute. Chapter 1 will outline those conflicts, and describe how they have contributed to the situation in Lebanon as it exists today, forming a basis to understand the need for radical change and reform, and the role that peacebuilding can have.

A. Pre-Civil War Lebanon

The Lebanese civil war, which raged from 1975 until 1990, is perhaps the most defining event in Lebanese history. The country is often viewed under two separate lenses; pre-war, and post-war Lebanon. In 1941, France declared Lebanon an independent state, however it continued to exercise control over Lebanon until 1943,

when Lebanon formed its first democratic government. The Lebanese confessional political system as it exists today traces its roots back to the Ottoman period, but it was rigidly institutionalized in 1943 with the formation of the National Pact.¹ The National Pact was an unwritten agreement between the two major groupings of political elites in Lebanon, Maronites representing the Christian population, and Sunnis who represented the country's Muslims. The Pact established the formation of a confessional system in which Christians and Muslims were represented by a 6:5 ratio in the government. The proportional representation of the National Pact was based on a 1932 census of the Lebanese population, including its levels of diversity and religious sects.² In fact, as of this writing, the census of 1932 remains the only official census to be carried out by the Lebanese government.³ Through the establishment of the National Pact, confessionalism was embedded into all facets of the country, and all government positions were allocated along confessional lines. Unfortunately, the Pact failed to create an effective system of power sharing. Instead, it fostered inequality, and led to the emergence of a weak state. The country's current political system actually shares many similarities with the politics of pre-war Lebanon, characterized by a culture of corruption, nepotism, and clientalism, an inability to institute administrative reforms, and failure to uphold the interests of the public good.⁴ Still, Lebanon did show signs of promise and growth, particularly of an economic nature, which have been lacking in the post-war period.

¹ Hassan Krayem, "The Lebanese Civil War and the Taif Agreement," *American University of Beirut*, accessed November 10, 2015. <http://ddc.aub.edu.lb/projects/pspa/conflict-resolution.html>.

² Faten Ghosn and Amal Khoury, "Lebanon after the Civil War: Peace or the illusion of peace?" *Middle East Journal*, 65 (2011): 382.

³ Muhammad Faour, "Religion Demography and Politics in Lebanon," *Middle Easter Studies*, 43 (2007): 909.

⁴ Faten Ghosn and Amal Khoury, "Lebanon after the Civil War: Peace or the illusion of peace?" *Middle East Journal*, 65 (2011): 383.

From 1946 until 1975, Lebanon enjoyed significant economic growth, benefitting from policies that favored private sector initiatives and investment. National per capita income increased at an average rate of 8% per year, reaching \$1,200 in 1971, one of the highest levels for a developing country at that time.⁵ Lebanon also experienced significant expansion of its GDP, reaching growth levels of 16% during the period of 1970-1974.⁶ In addition to economic prosperity, pre-war Lebanon witnessed regular elections, and the government preserved relatively liberal rights of free expression, freedom of association, and religious freedoms. From a regional perspective, Lebanon enjoyed advanced educational standards, with high levels of youth enrolment in primary schools.⁷ Unfortunately, much of Lebanon's growth, particularly its economic advancement, was completed in uneven levels across the country. Certain geographic regions, as well as religious or political sects, enjoyed significantly more growth than others. Income inequalities became glaring, with a small middle class, and large gap between the poor and the very rich. The confessional political system reinforced underdevelopment and underrepresentation, especially within Shi'a Muslim communities in the South and the Beqaa Valley. Economic and other disparities led to migration from rural to urban centers, and consequently a rapid rise in poor suburbs, particularly around Beirut.⁸ Ethnic and religious fragmentation finally reached a tipping point in 1974, when violent clashes broke out between rival Maronite and Palestinian political parties. The situation continued to deteriorate as the weak Lebanese state failed to contain outbreaks of violence, and as foreign intervention further aggravated internal

⁵ Samir Makdisi and Richard Sadaka, "The Lebanese Civil War, 1975-1990," *American University of Beirut, Institute of Financial Economics, Lecture and Working Paper Series*, 3 (2003): 61.

⁶ Charbel Bassil, "Macroeconomic Consequences of War and Terrorism in Lebanon," *De Gruyter*, 19 (2013): 421.

⁷ Makdisi and Sadaka, "The Lebanese Civil War," 61.

⁸ *Ibid*, 62.

strife. Soon, the country entered into a prolonged period of violent, and exceptionally damaging internal conflict.

B. The Effects and Damage of the Civil War Period: 1975 to 1990

Any growth that Lebanon achieved in the years after its independence, economic or otherwise, was almost entirely negated by the civil war. Over the 15-year period of violence, at least 144,000 people were killed, 184,000 injured, 13,000 kidnapped, and 17,000 went missing.⁹ An additional 750,000 or so Lebanese were internally displaced. 175 towns were partially or completely destroyed, and much of the country's infrastructure was severely damaged or destroyed. In total, the war is estimated to have caused at least \$25 billion in physical damage to Lebanon, with indirect costs estimated to be between \$80 and \$160 billion.¹⁰ Unsurprisingly, the war vastly reduced the effectiveness and capabilities of the official government during that time.

From an economic perspective, budget deficits during the civil war expanded rapidly and substantially, as the government's deficit spending increased. Inflation skyrocketed, and the banking sector was highly constricted as private deposits shrank, and many banks were forced to close either temporarily or permanently. National income plummeted largely as a result of the damage to physical assets and production capacity. Farms, businesses, public utilities, and essentially all methods of income generation were disrupted. Many private firms left the country, seeking safer and more stable opportunities elsewhere. Thousands of Lebanese fled the war and relocated to places such as the United States, South America, or the Gulf. Drastic emigration meant a huge drop in employment, and an exodus of what had once been a fairly highly

⁹ Ghosn Khoury, "Lebanon after the civil war," 382.

¹⁰ Makdisi and Sadaka, "The Lebanese Civil War," 79.

qualified labor force. As a further side-effect of infrastructure degradation, many transportation networks were either damaged or destroyed, reducing economic capacity, while also disrupting both foreign and domestic trade channels.¹¹ Private sector confidence was shattered domestically, and among outside investors. Even if some trade networks were not physically damaged, the reduction in external investment and trade activity was tangible, since few investors were willing to risk any involvement in Lebanese business ventures.

In addition to the more obvious human and financial tolls, Lebanon's government functions and authority were greatly impaired. Throughout the majority of the 15-year war, the legitimate Lebanese government was unable to maintain effective control over much of the country. Different regions of Lebanon, and especially the capital city of Beirut, were governed by distinct sectarian militias. The notorious "green line", which ran through the center of Beirut, was the epitome of factionalism during the war, separating East and West Beirut generally into separate Christian and Muslim districts.¹² Yet even within each district, control was often fluid among various militia groups and competing factions.¹³ Lack of central government control meant a substantial reduction in government expenditure and investment. Most militia groups during the war provided their own forms of public services, largely geared towards funding their own armed forces. In fact, the entrenchment of the sectarian system of public service provision as it exists in Lebanon today, can be partially attributed to the

¹¹ Samir Makdisi, "An Appraisal of Lebanon's Postwar Economic Development and a Look to the Future", *The Middle East Journal*, 3 (1977): 275.

¹² Dana Ballout, "A new 'Green Line' for Lebanon?", *Al Jazeera*, January 09, 2014, accessed March 30, 2016, <http://www.aljazeera.com/indepth/features/2014/01/new-green-line-lebanon-201414152531565994.html>.

¹³ Makdisi and Sadaka, "The Lebanese Civil War," 66.

civil war period.¹⁴ It is true that some of Lebanon's patronage systems have existed since at least the Ottoman era, and many are even older. However, Lebanon's modern political system is composed of many of the same militia groups that emerged and functioned during the civil war, and which have evolved into some of the most powerful political parties that operate today. Thus, in many cases service provision and control that was administered by militias during the war has endured today in the form of a sectarian system of political patronage.

The civil war was at least as devastating to Lebanese society as it was to the more visible material sectors, as it pitted religious sects and societal groups against one another. The conflict was mostly rooted in sectarian divisions, and external actors aggravated those rifts by applying influence to different groups as it became strategically prudent in order to meet certain strategic goals. While there was some intra-communal and intra-religious violence, most atrocities were committed against "other" communities, often between Christian and Muslim parties. Today, the most egregious and violent discord has dissipated, but significant communal and sectarian distrust is still prevalent. Lebanon still remains a largely segregated country, with different regions, cities, towns, and even neighborhoods usually dominated by one religious or political group.¹⁵ Regional, and internal strains and conflicts also drive fears of renewed internal conflict between divided communities.

The condition of government finances and societal damage, paired with the appalling human and physical destruction, left Lebanon in a vulnerable position, particularly economically, when the war finally ended in 1990. To this day, the country

¹⁴ Melani Cammett, *Compassionate communalism: welfare and sectarianism in Lebanon* (Ithaca: Cornell University Press, 2014), 39.

¹⁵ Muhammad Faour, "Religion, demography, and politics in Lebanon", *Middle Eastern Studies*, 6 (2007): 909-921.

has been unable to fully recover from the devastation after 15 years of violence (partly to blame is the impact of other conflicts, notably the Israeli attack and Syrian refugee influx).

C. The 2006 War with Israel

On July 12, 2006, Hezbollah militants launched an attack on Israeli military forces at the Lebanese-Israeli border, killing several Israeli soldiers and capturing two others. The attack and kidnapping was the impetus that led to a 33-day war between Israel and Hezbollah. Although it is generally agreed that Israel failed in its goal to defeat Hezbollah, the war had devastating effects on the country of Lebanon.¹⁶ Under the context of rooting out Hezbollah positions, Israeli military forces conducted hundreds of attacks in locations across all of Lebanon, resulting in severe damage to key Lebanese infrastructure and other facilities. Damage was widespread, especially to residential buildings, roads, water and sewage treatment facilities, electrical plants, bridges, factories and farms.¹⁷ The war resulted in at least \$3.5 billion of direct damage to Lebanese infrastructure, economy and resources, an amount equal to about 15% of Lebanon's 21.2 billion GDP at the time. The total damage including indirect costs was significantly higher, with estimates of at least \$15 billion by the United Nations Development Programme (UNDP).¹⁸ A specific breakdown of the damage estimates reveals the wide-spread destructive nature of the war: Damage to residences was estimated at \$2 billion, transport sector \$404 million, and industrial factories \$190

¹⁶ Ellen Knickmeyer, "2006 War Called a 'Failure' for Israel", *The Washington Post*, January 31, 2008, accessed March 20, 2016, <http://www.washingtonpost.com/wp-dyn/content/article/2008/01/30/AR2008013000559.html>.

¹⁷ Charles Harvie and Ali Salman Saleh, "Lebanon's economic reconstruction after the war: A bridge too far?" *Journal of Policy Modeling*, 30 (2008): 859.

¹⁸ *Ibid.*

million. 85% of the country's farmers lost some or all of their crops, at a value of up to \$185 million, and thousands of livestock were killed. Environmental impacts were severe, evidenced for example by 100 km of coastline flooded by a massive oil spill caused by Israeli bombing, and leading to \$729 million in damages.¹⁹ The 2006 war was a major setback to recovery efforts that were still in progress following the civil-war. Tourism, which had seen a resurgence in prior years, was completely devastated, and half a million Lebanese citizens fled the country. Today in 2016, Lebanon is still working to rebuild many areas destroyed during the 2006 war.

D. The Impact of the Syrian Civil War on Lebanon

In March of 2011, the first stage of the Syrian civil war was ignited when Syrian security forces under orders from President Bashar al-Assad, shot and killed protestors in the city of Deraa.²⁰ The protests had been in response to the Assad regime's arrest and torture of "political dissidents", children who had written antigovernment graffiti.²¹ As Assad's brutal and violent crackdown against protestors escalated, so too did the response of the opposition. Soon, opposition parties across the country organized and began to carry out coordinated attacks against regime targets. As the conflict has continued to spiral out of control over the past 5 years, it has now become a nightmarishly complex and savage civil war. The war has destroyed much, if not most, of Syria. Its impacts have also been felt regionally, especially in Lebanon.

¹⁹ "UN General Assembly votes for Israel to compensate Lebanon for 2006 oil spill," *Al Akhbar English*, December 20, 2014, accessed March 10, 2016, <http://english.al-akhbar.com/node/22965>.

²⁰ "Syria profile – Timeline", BBC News, February 29, 2016, accessed March 12, 2016, <http://www.bbc.com/news/world-middle-east-14703995>.

²¹ "Syrian Civil War," *Encyclopedia Britannica*, accessed March 25, 2016, <http://www.britannica.com/event/Syrian-Civil-War>

As considerable research has demonstrated, Lebanon was by no means a healthy country prior to the Syrian conflict. Since the end of its own civil war, Lebanon has been plagued by inefficient government, poor economic stability, security concerns, and social tensions. However, the steady influx of refugees since 2011 has put enormous stress on Lebanon's already frail state. As of January 31, 2016, the United Nations High Commissioner for Refugees (UNHCR) estimated nearly 1.1 million registered Syrian refugees in Lebanon, with likely thousands more who are unregistered.²² Syrians now account for almost 20% of Lebanon's total population, creating a massive strain on all sectors of the country, particularly economic activity and infrastructure. The influx of refugees has now "rapidly moved beyond the humanitarian to the economic and social spheres where large, negative, and growing spillovers are occurring."²³

During the period of 2012-2014 the world bank estimated that Lebanon's GDP growth was cut by 2.9% each year, a negative growth rate that is expected to persist, at least as long as regional unrest and domestic instability remain. GDP contraction has resulted in losses to wages, government profits, taxes, private consumption, and investment, pushing 170,000 Lebanese into poverty, and doubling the unemployment rate to around 20%.²⁴ Lebanon's economic losses as a result of the Syrian conflict are in excess of \$7.5 billion.²⁵ The Lebanese trade sector has been hit especially hard by the

²² "Syria Regional Refugee Response," *UNHCR Syria Regional Refugee Response*, January 31, 2016, accessed March 20, 2016, <http://data.unhcr.org/syrianrefugees/country.php?id=122>.

²³ "Lebanon Economic and Social Impact Assessment of the Syrian Conflict", *World Bank Poverty Reduction and Economic Management Department Middle East and North Africa Region*, September 20, 2013, accessed March 10, 2016, http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/09/24/000333037_20130924111238/Rendered/PDF/810980LB0box379831B00P14754500PUBLIC0.pdf_1.

²⁴ Ibid.

²⁵ Khalil Gebara, "The Syrian Crisis and its Implications on Lebanon: Social, economic, political and security Challenges and Potential Solutions," (presentation, Universite Saint Joseph, March 9, 2015), <http://www.sciences-po.usj.edu.lb/pdf/The%20Syrian%20Crisis%20%20its%20Implications%20on%20Lebanon%20-%20Khalil%20Gebara.pdf>.

Syrian conflict: Syria's collapse has meant the loss of a key trading partner for Lebanon, as well as the reduction in safe and reliable trade transit routes from Lebanon through Syria. Syria is Lebanon's only land route for the passage of goods, since transportation through Israel to the South is completely impossible, and the two countries share no diplomatic or economic ties. The conflict has impaired trade between Lebanon and Europe, since Syria is Lebanon's land route to the EU and to Turkey. As the Lebanese government's revenue collection has declined by \$1.5 billion, it has also been forced to increase government expenditures by \$1.1 billion to account for a surge in demand for public services. Although government expenditures on service provision have increased, unfortunately this does not necessitate that demand is being properly satisfied. Instead, demand for healthcare, education, electricity, and other public goods has been met by a decline in access and quality of the services provided.

The strain on, and deterioration of public services is particularly apparent in health care, education, and infrastructure: A lack of suitable housing for refugees has led to overcrowding in many parts of the country, including the capital city of Beirut. Improper living conditions, combined with lack of water and sanitation infrastructure has resulted in a sharp rise of contagious diseases.²⁶ A compounding impact on the potential health crisis has been Lebanon's poor environmental conditions, particularly the lack of suitable and sanitary garbage disposal. The garbage crisis has in large part been due to ineffective government functions, however the population increase resulting from refugees has no doubt contributed to a substantial growth in generated waste, and correspondingly to overflowing landfills. Lebanon's education sector has been strained by thousands of Syrian children who are now living in the country as refugees. Prior to

²⁶ "WHO Donor Snapshot – Lebanon," *World Health Organization*, January - June 2014, accessed April 05, 2016, http://www.who.int/hac/donorinfo/syria_lebanon_donor_snapshot_1july2014.pdf.

the Syrian conflict, Lebanon boasted a relatively high rate of primary education, especially when compared to many of its neighbors. However, school enrolment has become more difficult in part due to lack of funds, and also due to the greater demand. In 2014, an estimated 57% of public school students were refugees.²⁷ The population of enrolled students still ignores a large number of Syrian children who do not benefit from formal schooling, and who require non-formal education outside of the Lebanese school systems. From a financial perspective, the influx of refugees is estimated to cost Lebanon's health and social safety nets around \$240 million, with \$1.6 billion of investment required to stabilize and return service quality to pre-conflict levels.²⁸

Infrastructure has been one of Lebanon's most vulnerable sectors since the end of the civil war in 1990, and it was further degraded following the 2006 war with Israel. Even prior to the influx of Syrians, Lebanon faced annual water and electricity shortages, unable to meet the demand of its citizens.²⁹ Since 2011, the country's population has increased by over 1 million people, making shortages even more commonplace, as outdated and inefficient power and water supplies are strained by rapidly increasing demand. The Lebanese government has been forced to direct an even greater percentage of its expenditures to subsidize the inefficient operations of Electricité Du Liban (EDL), thus increasing the already perilous budget deficit. Most families are often forced to buy water from expensive private supplies, or be faced with drought, and to buy electricity from overpriced private generators. As an additional

²⁷ "Lebanon Economic and Social Impact Assessment of the Syrian Conflict", *World Bank Poverty Reduction and Economic Management Department Middle East and North Africa Region*, September 20, 2013, accessed March 10, 2016, http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2013/09/24/000333037_20130924111238/Rendered/PDF/810980LB0box379831B00P14754500PUBLIC0.pdf, 2.

²⁸ Ibid.

²⁹ Tamara Qiblawi, "Steep water shortage takes toll on economy", *The Daily Star*, December 03, 2010, accessed March 28, 2016, <http://www.dailystar.com.lb/Business/Lebanon/2010/Dec-03/60922-steep-water-shortage-takes-toll-on-economy.ashx>.

stress on infrastructure, the higher population has resulted in more than a 50% increase of traffic on many of the nation's already overused and unmaintained roads.³⁰

If Lebanon were to stabilize and restore public services to pre-Syrian conflict levels, it would require at least a \$2.5 billion investment, not counting the \$2.6 billion fiscal impact that has already been incurred.³¹ Furthermore, aside from the direct monetary and material costs, strains on public services and infrastructure might lead to other unintended risks. Inability to provide basic services can strain already existent social tensions, and can negatively impact the internal security situation. As services and resources decline, some communities, especially those that are more insulated and vulnerable, might become likely to view others with hostility. The combination of high unemployment, lack of basic goods, and a high population of dissatisfied youth can lead to a much greater risk of internal conflict. Some have even suggested that these types of conditions were largely to blame for the outbreak of the Syrian civil war itself.³² As an additional internal pressure, in 2013, Hezbollah committed its militia to an all-out battle in Syria in defense of long-time ally Bashar al-Assad.³³ Thousands of Hezbollah militants have died in the conflict, and many of the same Syrians who were fleeing the Assad regime now reside in close proximity to Hezbollah forces and supporters, adding yet another layer of potential social tension. Lebanon's internal strains, regional tensions, and fears of ongoing or spillover violence from Syria have vastly reduced investor confidence. Tourism is in sharp decline, and foreign businesses and individual

³⁰ "Lebanon Economic and Social Impact Assessment of the Syrian Conflict," 3.

³¹ Ibid, 2.

³² Joshua Hammer, "Is a Lack of Water to Blame for the Conflict in Syria?" *Smithsonian Magazine*, June 2013, accessed March 15, 2016, <http://www.smithsonianmag.com/innovation/is-a-lack-of-water-to-blame-for-the-conflict-in-syria-72513729/?no-ist>.

³³ Annie Barnard, "Hezbollah Commits to an All-Out Fight to Save Assad", *The New York Times*, May 25, 2013, accessed April 4, 2015, <http://www.nytimes.com/2013/05/26/world/middleeast/syrian-army-and-hezbollah-step-up-raids-on-rebels.html?pagewanted=all& r=1>.

investors are shying away from doing business in Lebanon. As long as the Syrian conflict persists, Lebanon will likely continue to suffer unless it can counteract the negative impacts.

E. Lebanese-Israeli Tensions and the Maritime Border Dispute

Lebanon and Israel share a history of violent conflict. Strenuous relations between the two date back to at least the 1948 Arab-Israeli war, during which thousands of Palestinian refugees flooded into Lebanon, sowing seeds of unrest within the Lebanese state. Since then, the two states have been involved in several conflicts. During the Lebanese civil war – sparked in large part by tensions surrounding the presence of Palestinians and the PLO displaced by the 1948 war – Israeli Defense Forces occupied the southern portion of Lebanon for years, conducting military operations and participating in armed battles with Lebanese militia and other foreign forces.³⁴ Israel did not withdraw from southern Lebanon until the year 2000, some 22 years after their incursion, and after the UN Security Council’s resolution 425 of 1978 that called for the immediate withdrawal of Israeli forces from Lebanon.³⁵ Israeli military presence also contributed to the rise of Hezbollah, who continues to cite resistance to Israel as their most important pillar of operations.³⁶ As previously discussed, in 2006, Israel launched a large-scale attack against Lebanon, in an effort to root out Hezbollah. The attack killed well over 1,000 Lebanese civilians, and caused billions of dollars in damage to Lebanese infrastructure, especially in south Lebanon and in the southern suburbs of Dahieh. Deadly border clashes in early 2015 between

³⁴ Krayem, “The Lebanese Civil War”.

³⁵ “UNIFIL Operations”, *United Nations Interim Force in Lebanon*, accessed December 02, 2015, <http://unifil.unmissions.org/Default.aspx?tabid=11580>.

³⁶ Richard A. Norton, *Hezbollah: A Short History*. (New Jersey: Princeton University Press, 2014).

Hezbollah and the Israeli Defense Forces (IDF) prompted renewed fears of an outbreak of violence between Lebanon and Israel.³⁷ Lebanon still remains one of the strictest adherents to the Arab League boycott of Israel, and since 1955 Lebanese law has prohibited any contact or communication with members of an enemy state, specifically Israel.³⁸

The discovery of hydrocarbons in the Levant Basin of the eastern Mediterranean led to the emergence of yet another source of tension between the two countries, this time regarding the boundary lines of their maritime borders. Prior to the discovery of hydrocarbons, concrete maritime zones had not been established between many eastern Mediterranean countries. After discovering the massive oil and gas potential in the eastern Mediterranean, Cyprus moved to distinguish shared maritime zones with its neighbors, reaching agreements in the form of bilateral treaties with Egypt in 2003, Lebanon in 2007, and Israel in 2010.³⁹ The dispute between Israel and Lebanon revolves around conflicting coordinates submitted to the UN based on agreements that each country had made with Cyprus, resulting in an 860 square kilometer disputed zone.

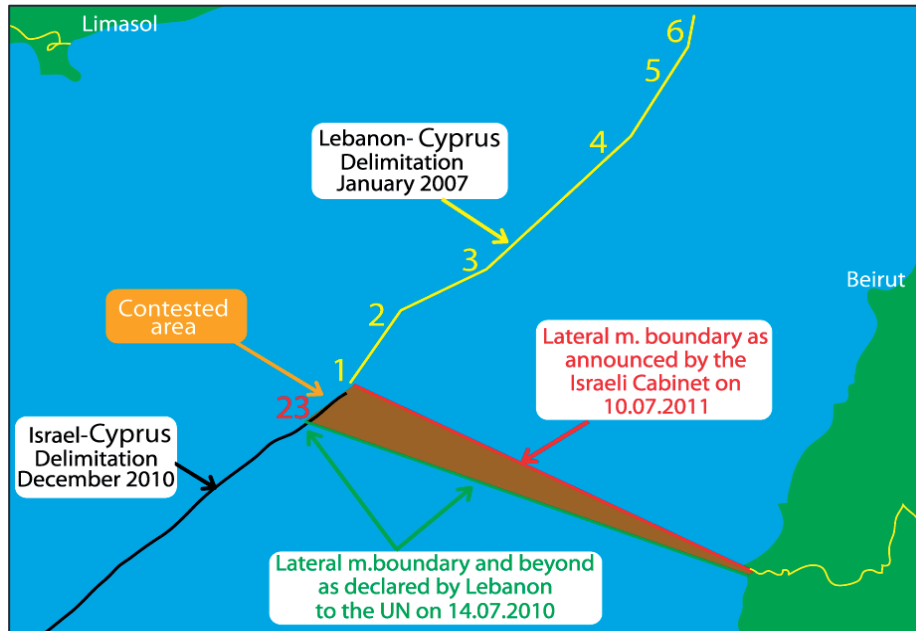
In Lebanon's 2007 agreement with Cyprus, the Exclusive Economic Zone (EEZ) was delineated using an equidistant line between the two countries, stretching from north to south. Lebanon's southern border with Israel was left unmarked, however point 1 on the map below was used as the southern starting point for the 2007 demarcation line.

³⁷ "Two Israeli soldiers killed in Hezbollah missile attack", *Al Jazeera*, January 28, 2015, accessed November 28, 2015, <http://www.aljazeera.com/news/2015/01/israeli-soldiers-injured-shebaa-farms-missile-attack-150128100642659.html>.

³⁸ Martin Weiss, "Arab League Boycott of Israel", *Congressional Research Service*, June 10, 2015, accessed November 25, 2015, <https://www.fas.org/sgp/crs/mideast/RL33961.pdf>.

³⁹ Anastasios Antoniou and Aquilina Demetriadi, "Legal aspects of conflicting views on Cyprus' Exclusive Economic Zone", *Mondaq*, June 04, 2015, accessed November 10, 2015, <http://www.mondaq.com/cyprus/x/402490/Oil+Gas+Electricity/Legal+Aspects+Of+Conflicting+Views+On+Cyprus+Exclusive+Economic+Zone>.

Figure 1 Contested Maritime Boundaries



Source: Daniel Meier, “Lebanon’s Maritime Boundaries: Between Economic Opportunities and Military Confrontation”, *St. Anthony’s College, University of Oxford*, (2013): 5.

However, the 2007 agreement between Lebanon and Cyprus was never ratified by the Lebanese parliament, meaning that it never entered into force. Instead, in July and October of 2010, Lebanon submitted new coordinates to the UN Secretary General, using a new point of delineation (23) for the southern border with Israel. Shortly thereafter, Israel and Cyprus reached an agreement on their own maritime boundaries, with Israel citing point 1 as the delineation point for their northern border with Lebanon.⁴⁰

⁴⁰ “Agreement Between the Government of the State of Israel and the Government of the Republic of Cyprus on the Delimitation of the Exclusive Economic Zone”, *United Nations*, December 17, 2010, accessed November 10, 2015,

Following the 2010 agreement between Israel and Cyprus, Lebanon soon became aware that Israel now claimed an exclusive economic zone that overlapped with what the Lebanese considered to be their sovereign economic territory. In 2011, Lebanon submitted two letters to the UN Secretary General in protest of the Israel-Cyprus EEZ agreement. Lebanon argued that the contested point 1 could not be used in an agreement between Cyprus and any other state, as it is located in Lebanese territorial waters. Lebanon rejected the agreement between Israel and Cyprus as a violation of Lebanon's exclusive economic zone. Furthermore, Lebanon argued that the coordinate chosen by Israel is north of the internationally recognized land borders as decided in the Paulet-Newcombe agreement and Armistice Agreement of 1949, which determined the southern border of Lebanon at Ra's Naqurah. Ra's Naqurah represents the border point between Lebanon and Israel as defined by the Blue Line, the line of withdrawal of Israeli Defense Forces from Lebanese territory in 2000, and as negotiated in cooperation with the UN. The boundary line is monitored and secured by the United Nations Interim Force in Lebanon (UNIFIL), in conjunction with Lebanese Armed Forces.

The potential existence of oil or gas reserves in the disputed region has compounded what might normally be a more straightforward, or low-risk dispute. Although both states have so far managed to avoid conflict over their disputed territory and resources, potentially violent confrontation remains a real possibility, especially given the already high tensions between the two. Both Israel and Lebanon are steadfast in their claims of maritime sovereignty. Furthermore, each country has threatened the use of force in defense of its hydrocarbon resources. Israel has warned that it will not hesitate to use military force to defend its gas fields, a position reaffirmed by high-level

http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/cyp_isr_eez_2010.pdf.

government officials including Prime Minister Benjamin Netanyahu. Government officials on the Lebanese side have echoed similar positions. Hezbollah's leader Hassan Nasrallah offered an even more pointed threat, that direct reprisals will be taken against Israel, if it harms any of Lebanon's oil or gas installations.⁴¹ There are even fears within Lebanon (although such fears are likely unfounded) that Israel will syphon gas either from the disputed zone, or even from farther north within Lebanon's maritime territory.⁴²

Both Lebanon and Israel view the development of natural gas reserves as an important project for each of their energy sectors, and for economic development. Each country has interests in controlling the disputed zone in order to exploit as much of the hydrocarbon resources as possible. This could certainly lead to more conflict between the two countries, but it could also potentially have the opposite effect: Considering the use of natural resources in peacebuilding efforts, the presence of hydrocarbons in the disputed territory could possibly lead to cooperation or improved relations between Lebanon and Israel. While such a scenario might seem unlikely given the history of discord between the two neighbors, the possibility is certainly worth exploring, and will be addressed in greater detail in chapter 4 of this study.

⁴¹ Ehab Abu-Gosh, and Rafael Leal-Arcas, "Gas and Oil Explorations in the Levant Basin: The Case of Lebanon and Israel". *Oil, Gas and Energy Law Intelligence* 11 (2013): 7.

⁴² "Israel stealing Lebanon's gas: Parliament speaker," *The Daily Star*, December 8, 2014, <http://www.dailystar.com.lb/News/Lebanon-News/2014/Dec-08/280273-israel-stealing-lebanons-gas-parliament-speaker.ashx>.

CHAPTER II

THE ENDURING POST-CONFLICT CONDITIONS OF THE LEBANESE STATE

Chapter 1 provided an overview of significant conflicts that have negatively impacted Lebanon, demonstrating the need for peacebuilding efforts to reduce the possibility of future conflict. Peacebuilding is a comprehensive process, one that seeks to address all of the factors that contribute to conflict, and to help rebuild areas of a country that have been damaged by conflict. In chapter 2, Lebanon's post-conflict characteristics will be discussed, highlighting deficiencies of the Lebanese state, and the failure to rebuild critical sectors of the country that have been degraded by violence. By assessing the vulnerabilities of the state, it will be possible to identify the issues that future peacebuilding efforts should focus on, and the areas that could potentially be improved by successful hydrocarbon development.

A. Post-War Rebuilding and Reconstruction

In 1989, a formal end to the civil war was negotiated in Taif Saudi Arabia, and thus it earned the name of the Taif accord. The Taif, or the Document of National Reconciliation, re-ordered the distribution of political power in Lebanon, so as to give more proportional representation to the country's religious sects. Post-conflict efforts that were spearheaded by the Taif accord attempted to deal with the damaged economic and political remnants of the civil war. However, the Taif failed to adequately address issues of security, recognition, or group acceptance and social reconciliation. In order to

achieve real reconciliation, post-conflict efforts should address the underlying issues that led to conflict, not just repair the physical damage to the conflict.⁴³

Lebanon's post conflict reconciliation attempted to treat the visible wounds from the civil war, but the latent causes of conflict were swept under the rug. In addition to physical and economic reconstruction, "in order to reach a complete resolution, any post-conflict efforts should deal with the social, psychological, as well as physical impacts of the civil war."⁴⁴ To highlight that failure of post-conflict efforts, a 2009 survey revealed that 85% of Lebanese believed they had not fully reconciled with one another. In general, post war efforts from a peacebuilding perspective were lackluster at best, and succeeded only in putting an end to the violence of the war. While that in itself was certainly of immense importance, there has been very little done to rectify the multitude of other issues: Politically, reforms have only been selectively applied, with no improvement of electoral law, decentralization, or abolishment of sectarianism, resulting in increased power imbalances in the country.⁴⁵ Likewise, Lebanon's infrastructure and services remain severely lacking, and economic rehabilitation has been repeatedly stymied.

B. Lebanon's Economy and Infrastructure

Due to a lack of reliable and accurate data from the Lebanese government, there are often contradictory reports and assessments of Lebanon's economic status. As a result, assessments must often be made in the form of projections or forecasts based on the best information available, which is sometimes outdated or unreliable. This thesis

⁴³ Faten Ghosn and Amal Khoury, "Lebanon after the civil war: Peace or the illusion of peace?" *Middle East Journal*, 65 (2011): 384.

⁴⁴ *Ibid*, 385.

⁴⁵ Elizabeth Picard and Alexander Ramsbotham, "Reconciliation, reform and resilience: Positive peace for Lebanon", *Accord: Conciliation Resources*, 24 (2012).

will strive to rely on the most reliable and current sources available when describing the conditions of the Lebanese state. In light of data deficiencies, Lebanon's economic forecasts are sometimes adjusted depending on political or security developments in the country. For example, if exact data is not available about an economic indicator, it is assumed that increased unrest, violence, or political upheaval will negatively impact economic conditions (this is most often the case anyway).

In the face of continued regional turmoil and internal uncertainty, Lebanon's economy did improve slightly in 2015, with an estimated GDP growth around 2%, reaching \$54.67 billion.⁴⁶ Some estimates put Lebanon's GDP at an expected \$57.11 billion for the year 2016.⁴⁷ In addition to its national income, Lebanon has estimated cash reserves of \$37 billion, in addition to approximately \$12 billion in gold reserves.⁴⁸ Although GDP has slightly increased over the past few years, growth rates are still sluggish and much lower than Lebanon's economic potential. Persisting regional security failures, political uncertainties, and lack of internal reforms are all negatively impacting Lebanon's economy and its potential for recovery. The modest GDP growth has occurred largely as a result of increased domestic consumption, especially because of the global decline in oil prices.⁴⁹ Lebanon is a major importer of fuel, realizing almost all of its energy needs in the form of oil imports. Thus, a decline in global fuel

⁴⁶ Some conflicting data on Lebanon's 2015 GDP, see :“Lebanon Overview”, *The World Bank*, April 01, 2016, Accessed April 08, 2016, <http://www.worldbank.org/en/country/lebanon/overview>; “Lebanon Economic Report”, *Bank Audi*, 2015, accessed, March 15, 2016, <http://www.bankaudi.com.lb/GroupWebsite/openAudiFile.aspx?id=2615>.

⁴⁷ “Lebanon's Economic Outlook and the Mixed Bag of International Estimates”, *Blominvest Bank*, May 02, 2015, accessed April 11, 2016, <http://blog.blominvestbank.com/wp-content/uploads/2015/05/Lebanon---s-Economic-Outlook-and-the-Mixed-Bag-of-International-Estimates1.pdf>: 2

⁴⁸ Mounir Rached, “Lebanese Economy Overview”, (presentation, American University of Beirut, September 10, 2015).

⁴⁹ “Lebanon Economic Report”, *Bank Audi*, 2015, accessed, March 15, 2016, <http://www.bankaudi.com.lb/GroupWebsite/openAudiFile.aspx?id=2615> : 1.

prices has been a positive factor for Lebanon, leading to increased consumption for Lebanese households, as well as to lower production costs for Lebanese companies.

Despite modest GDP growth, major investment is still lagging because of the extreme uncertainty that persists both domestically and regionally. Domestic investors continue to be wary of potential risks and instability, forgoing significant investment and opting instead for a “wait and see approach.”⁵⁰ Unemployment remains a serious challenge, especially as young, qualified individuals continue to enter the workforce each year. The unemployment rate of 20% means that the Lebanese economy is operating at well below full employment, and likewise the full potential for economic output is not being achieved.

Lebanon’s financial health has continued to decline over the past few years, with the public debt ratio rising to 148.7% of GDP by the end of 2015.⁵¹ In 2015, Lebanon had a deficit balance of payments reaching \$850 million, caused mostly by a double digit drop of financial flows into the economy. Government revenues did improve slightly, however that can be largely credited to a one-time increase in telecom revenues.⁵² Moving forward, Lebanon is expected to expand its public budget and increase spending, an action that has become necessary due to the many strains in the country: Spillover of Syrian population, need for enhanced security operations, required improvements to infrastructure, healthcare spending, and many other issues. As a result of increased spending and government revenues that are not anticipated to keep up, the public deficit will likely continue increasing. Furthermore, inflation levels have been steadily decreasing over the past few years, influenced in large part by Lebanon’s

⁵⁰ Ibid, 2.

⁵¹ Lebanon Overview”, *The World Bank*, April 01, 2016, Accessed April 08, 2016, <http://www.worldbank.org/en/country/lebanon/overview>.

⁵² “Lebanon Economic Report”, *Bank Audi*, 2.

currency situation as it is tied to the US dollar, and its high reliance on imports at 43.5% of GDP in 2014.⁵³ The Institute of International Finance (IIF), forecasted 0.5% deflation by the end of 2016, yet another indicator of Lebanon's weak economic growth and poor financial health.⁵⁴

The agricultural and industrial sectors have been hit particularly hard over the past 5 years, and demand for imports declined once again in 2015. Agricultural imports dropped by 12.6%, while exports remained unchanged following a 10% drop in 2014.⁵⁵ Regional turmoil and political upheaval have been especially damaging to Lebanon's agricultural markets; farmers are unable to supply as much to external markets as supply routes have been severely disrupted, particularly those between Syria and Jordan. Furthermore, the domestic market is oversupplied with agricultural products, and many Lebanese farmers have sought financial assistance from the central government as a result.⁵⁶ The industrial sector has continued to contract both in terms of industrial product imports, and domestic industrial activity. Despite the seemingly endless visible construction in the capital Beirut, the real estate market in Beirut and nationally has slowed.⁵⁷ Both construction permits, and the delivery of building materials declined in 2015 as compared to the previous year.

In spite of unrest and uncertainty, Lebanon's trade and services sector remained surprisingly resilient. The number of tourists actually increased in 2015, a significant improvement compared with the previous year in which tourism witnessed substantial

⁵³ Ibid, 3.

⁵⁴ "IIF revises Lebanon GDP growth forecast downward", *The Daily Star*, September 14, 2015, accessed March 25, 2016, <http://www.dailystar.com.lb/Business/Local/2015/Sep-14/315068-iif-revises-lebanon-gdp-growth-forecast-downward.ashx>.

⁵⁵ "Lebanon Economic Report", *Bank Audi*, 3.

⁵⁶ Ibid.

⁵⁷ Elias Sakr, "Real estate demand shifts to suburbs", *The Daily Star*, March 17, 2014, accessed April 11, 2016, <http://www.dailystar.com.lb/Business/Lebanon/2014/Mar-17/250434-real-estate-demand-shifts-to-suburbs.ashx>.

declines. However, current tourism levels still remain about 30% lower than peak levels experienced prior to the Syrian conflict in 2011.⁵⁸ Lebanon's banking sector was also a relative bright spot amidst an otherwise bleak economic picture. Banking remains one of the few areas of the economy that continues to witness some growth, especially due to the increase of deposits at Lebanese banks. The volume of deposit growth from both residents and non-residents for 2015 was twice as high as the volume recorded over the past 5 years, indicative of the relative trust still inherent in Lebanon's Banking sector.⁵⁹ Banking remains strong in large part because of relaxed monetary conditions and banking regulations, allowing Lebanon to endure as a haven for those regionally and domestically who are looking to store funds.

Lebanon must work to improve its economic situation and especially reverse the troubling trend of sluggish growth that has persisted since before the Syrian conflict. While such economic improvement might be dependent in part on the Syrian war and other regional unrest to dissipate, there are still measures that Lebanon can take to foster growth. Private investment and consumption need to be encouraged, in conjunction with reducing the 20% unemployment level. Furthermore, growth requirements cannot be met unless Lebanon gradually repairs and upgrades its domestic basic infrastructure: Public investment in infrastructure over the past 5 years has averaged less than 1.1% of GDP, an extremely low percentage for developing countries.⁶⁰ Significant upgrades are necessary in sectors of energy, telecommunications, transportation, and water. In addition, Lebanon must improve its fiscal situation particularly by reducing its substantial public debt ratio. As will be discussed later in this thesis, those necessary

⁵⁸ "Lebanon Economic Report", *Bank Audi*, 2.

⁵⁹ "Lebanon Economic Report", *Bank Audi*, 3.

⁶⁰ *Ibid*, 12.

infrastructure, fiscal, and corresponding economic improvements might be achieved through the production of Lebanon's hydrocarbon resources.

C. The Energy and Electricity Sector

Lebanon's electricity sector is highly inefficient and in disrepair. It is one of the sectors of infrastructure in most need of urgent overhaul. The state's electricity monopoly, *Electricité Du Liban* (EDL), is subsidized by the government to supply electricity at a price that is far below the market rate. Partly because of the low prices, there is a huge demand for power that the country is unable to supply.⁶¹ EDL was first established in 1964 as a state-owned public utility company, in control of a monopoly of generating, transmitting, and distributing electricity throughout Lebanon.⁶² Prior 1975, Lebanon's electricity and power provision was relatively stable and reliable. However, during the civil war, power sector infrastructure was severely deteriorated. All components of power supply; generation, transmission, and distribution were damaged, resulting in diminished capacity and quality of services, and creating a system that witnesses numerous power outages on a daily basis. In fact, Lebanon has not been able to provide 24 hours of electricity service since before the civil war.⁶³ Today, EDL's average electricity supply is only about 14 hours per day.⁶⁴ Lebanon has invested heavily into the rehabilitation of the power sector following the end of the war in 1990,

⁶¹ Mounir Rached, "Lebanese Economy Overview", (presentation, American University of Beirut, September 10, 2015).

⁶² "About EDL", *Electricité Du Liban*, accessed April 12, 2016, <http://www.edl.gov.lb/aboutedl.htm#3>; Mounir Rached, "Energy Supply Lebanon", (presentation, American University of Beirut, October 15, 2015).

⁶³ Krayem, "The Lebanese Civil War".

⁶⁴ Mounir Rached, "Energy Supply Lebanon", (presentation, American University of Beirut, October 15, 2015).

with investments reaching an estimated \$1.8 billion by 2002.⁶⁵ Still, restoration efforts have been ineffective, and the deficit between electricity demand and supply has continued to worsen. The causes include; poor management of EDL and bad government policies, further destruction during the 2006 war with Israel, and rapidly increasing demand from over 1 million Syrian refugees.

As a result of Lebanon's substantial power shortage from what is supplied by the state run EDL, consumers are forced to fill their demand by accessing private electricity sources. EDL does not provide continuous electricity to any region of the country, and consumers rely on private generators to receive a significant portion of their electricity needs. The demand for private electricity has in turn led to an entire black market system of private power generation, in which generator mafias compete with each other, and even with the national suppliers, to maintain their market share of electricity production.⁶⁶ The typical blackout period for Beirut is a rotating 3-hour block, in which EDL does not supply electricity. The blackouts are even longer during the summer months, sometimes resulting in full days without electricity. In other more rural areas of the country, the power supply is even more tenuous, with some villages receiving less than four hours of electricity a day.⁶⁷ Due to the monopoly that private suppliers hold on supplementary electricity production, prices for generator electricity are much higher than those provided by the state. Prices do not fluctuate according to changes in fuel prices, meaning that when the prices of fuel imports declined over the past few years, the discount was not passed on to consumers as they were still forced to pay the high private prices for generator service. In one effort to close the gap between supply and

⁶⁵ Ibid.

⁶⁶ "Lights, handguns, action", *The Economist*, February 28, 2015, accessed April 07, 2016, <http://www.economist.com/news/middle-east-and-africa/21645233-lebanons-fractured-society-even-keeping-lights-battle-lights>.

⁶⁷ Ibid.

demand, Lebanese authorities resorted to hiring Turkish ships equipped with mobile power stations.⁶⁸ However, even that emergency plan has fallen short; the ships failed to provide anywhere close to the necessary electricity needed to cover the shortage, partly because of disputes between the power-ships and Lebanese authorities over proper payments. Lebanon's electricity prices are among the highest in the region, but they are still unable to cover EDL's production costs, requiring considerable subsidies from the government, and highlighting EDL's extreme inefficiency.⁶⁹

Since a large portion of energy is supplied by unregulated private sources, there is a lack of complete data on demand and electricity usage levels. Most private generators are not metered, and the usage is not tracked in any way. When trying to estimate Lebanon's electricity consumption, an educated guess must be used based on consumption levels of comparable countries such as Cyprus, and then adjusted to account for population size and number of households in Lebanon.⁷⁰ Based on the most accurate figures and electricity models, the demand for electricity is estimated to be over 3,000 megawatts (MW) as of 2015.⁷¹ However, Electricité Du Liban does not come close to meeting those production levels; there is an estimated 1000-1,500 MW power shortage in the country, which is currently being supplied by the system of private generators. Not only are private generators more expensive, they are also highly inefficient and extremely dirty, emitting high levels of harmful emissions into

⁶⁸ Simon Tisdall, "The Turkish 'power ship' keeping the lights on in Lebanon", *The Guardian*, April 11, 2013, accessed February 20, 2016, <http://www.theguardian.com/world/2013/apr/11/turkish-power-ship-lights-on-lebanon>.

⁶⁹ "Lebanon: Challenges of the Energy Sector", *Blominvest Bank*, December 14, 2013, accessed April 12, 2016, <https://www.blominvestbank.com/Library/Files/BLOM%20Invest/Spot2013/2013-12-Lebanon%20Challenges%20of%20the%20Energy%20Sector.pdf>:2.

⁷⁰ Mounir Rached, "Energy (electricity) Supply in Lebanon", (presentation, American University of Beirut, October 20, 2015).

⁷¹ Mounir Rached, "Energy (electricity) Supply in Lebanon", (presentation, American University of Beirut, October 20, 2015).

Lebanon's already polluted air.⁷² Lebanon's power deficit must be met by other sources besides inefficient, costly, and dirty private generators. There is no easy solution to the problem, but reforms might include improving the functions of EDL, or procuring better and cleaner sources of energy, perhaps offshore natural gas.

In addition to Lebanon's electricity production failures, the energy sector as a whole is in serious need of reform. According to the World Energy Council's 2013 rankings, Lebanon ranked 109 out of 129 countries for the Energy Sustainability Index, considering the main factors of energy security, energy equity, and environmental sustainability.⁷³ From an energy security standpoint alone, Lebanon was ranked 127 out of 129 countries, reflective of Lebanon's "energy security almost lacking entirely".⁷⁴ With almost no domestic energy sources, Lebanon relies almost completely on imports of fossil fuels: 97% of energy consumption is imported, and 94% of that amount is composed of fossil fuels, mostly crude oil. Fossil fuels are used for many sectors, including transportation, heating, and industry, but by far the largest consumer of fuel is the electricity sector. The electricity sector's fuel usage is not just indicative of the high demand for electric power (it has already been established that Lebanon's main power supplier cannot even meet the demand), but also of the inefficiencies of power production: Every one of the installed power plants in the country is operating at below capacity.⁷⁵ One of the primary causes is that many of Lebanon's plants were designed to use natural gas as a fuel source. Instead they have been operating on cheaper, dirtier,

⁷² Andrew Bossone, "Widespread use of diesel power generators degrading air quality", *Nature Middle East*, March 12, 2013, accessed April 10, 2016, <http://www.natureasia.com/en/nmiddleeast/article/10.1038/nmiddleeast.2013.34>.

⁷³ "2013 Energy Sustainability Index", *World Energy Council*, 2013, accessed April 12, 2016, <https://www.worldenergy.org/wp-content/uploads/2013/09/2013-Energy-Sustainability-Index-VOL-2.pdf>: 15.

⁷⁴ *Ibid*, 116.

⁷⁵ "Lebanon: Challenges of the Energy Sector", *Blominvest Bank*, December 14, 2013, accessed April 12, 2016, <https://www.blominvestbank.com/Library/Files/BLOM%20Invest/Spot2013/2013-12-Lebanon%20Challenges%20of%20the%20Energy%20Sector.pdf>: 4.

and far less efficient heavy crude oil. Switching from crude oil to natural gas would significantly improve the efficiency of power production, and gas is also a much cleaner fuel source.

D. The Taif Agreement and Lebanon's Political System

The Lebanese civil war was officially ended by the Taif Agreement, which sought to reorder the Lebanese confessional political system, and re-align power among religious sects. It was meant to institute a compromise between all relevant parties from the war and to restore political normalcy. However, while the Taif was effective as a basic mechanism for ending the war and supporting post-war compromise, it was not appropriate for rebuilding a more stable and long-term political system in Lebanon.⁷⁶

The Taif accord succeeded in ending the violence of the civil war and restoring stability, but it also “further institutionalized the sectarian division within the government by introducing some reforms to the existing political system through a new power-sharing agreement that gave the Muslims a greater role in the political process.”⁷⁷ The primary goal of the agreement was to put an end to the 15 years of conflict, but it also aimed to address one of the principle causes of the war, which was inequality between sects, particularly the disproportional political representation and authority of some sects. The adoption of the Taif provided for an equal 50/50 split of Muslims and Christians in parliamentary seats. It shifted some of the executive powers away from the president, to the prime minister and the speaker of parliament, consequently providing more power to Muslims (Sunni and Shia), and less power to

⁷⁶ Ibid.

⁷⁷ Faten Ghosn and Amal Khoury, “Lebanon after the Civil War: Peace or the illusion of peace?”. *Middle East Journal*, 65 (2011): 383.

Christians. The reordering of power was logical at the time, since an important cause of the civil war outbreak was uneven distribution of representation and development across Lebanon's diverse religious and cultural groups.

The Taif was meant to address inequalities, and to account for the demographic shift in the country that had taken place since the 1943 National Pact, namely a greater ratio of Muslims to Christians. By adopting a power sharing system, Lebanon prevented a single group from dominating another, as had been the case prior to 1975. In achieving its two primary goals, the Taif might be considered relatively successful, however it was not successful in creating a lasting and effective political system. Power sharing sacrificed effective government for the sake of stability, and the arrangement weakened governmental sovereignty. Syria was given the role of mediator, to preserve Lebanon's stability by maintaining military forces in Lebanon. Furthermore, the Taif originally called for the abolition of a confessional system, as well as for promoting universal social and economic justice.⁷⁸ Instead, sectarianism has become even more entrenched in Lebanese politics, and social, economic, and essentially all issues are decided according to sectarian lines. Thus, while the Taif was effective at putting an end to the war, stability came at a high cost, namely the sacrifice of a functional political process.

Lebanon's political reordering, combined with influential regional and domestic events such as the assassination of Rafic Hariri, led to the emergence of significant sectarian splits between two rival political factions in the government; the March 14th Sunni led coalition and the March 8th Shia led coalition, with Christians mostly split

⁷⁸ Ibid, 384.

between the two groups.⁷⁹ The split in political alliances represents more than just fracturing along sectarian lines, but also a division in international political orientation. March 14th remains aligned with the US and Saudi Arabian interests, vehemently opposed to Lebanese involvement in the Syrian conflict. In contrast, the March 8th alliance is heavily linked with Hezbollah, Iranian and Syrian interests, and by proxy supports military involvement in Syria. Regional and international interests continue to interfere with Lebanon's internal political processes. Such influence has been especially visible during Lebanon's futile effort to elect a new president. Iran and Saudi Arabia, arguably the two most influential players in Lebanese affairs, each support a different Lebanese presidential candidate. Within the Lebanese government, the rift is embodied by the March 14th and March 8th rivalry, and each coalition's presidential nominee. However, it is widely contended that one of the primary causes of Lebanon's presidential crisis is the opposition between Iran and Saudi Arabia.⁸⁰ Foreign influence is not limited to Lebanon's presidential crisis, as political sects often use regional and international actors to advance their own political agendas.⁸¹ Rival political support from foreign countries remains a critical feature of the Lebanese state, and one that must be reduced in order to achieve effective peacebuilding efforts.

Even ignoring the foreign influence on Lebanon's domestic politics, the Lebanese sectarian system is still highly ineffective and inefficient. In an effort to appease all religious sects, broad consensus is required to pass any government laws or

⁷⁹ Wendy Pearlman, "Emigration and Power a study of sects in Lebanon 1860-2010". *Politics and Society*, 41(2012): 103-133.

⁸⁰ Ali Hashem, "Hezbollah's pick for president of Lebanon", *Al Monitor*, February 01, 2016, accessed April 15 2016, <http://www.al-monitor.com/pulse/originals/2016/02/hezbollah-support-michel-aoun-presidential-candidate.html#>.

⁸¹ Karim Knio, "Lebanon: Cedar Revolution or Neo-Sectarian Partition?", *Mediterranean Politics*, 10 (2005): 230.

decisions.⁸² What this most often means is that decisions are not approved or adopted, creating an inept and crippled government. Numerous examples demonstrate the futility of the government and political process: As of this writing, there have been 38 failed parliamentary sessions to elect a new president, and the presidential post has been vacant since May of 2014.⁸³ Government officials could not even agree on how to dispose of the country's waste, allowing garbage to fester for eight months in makeshift dumps scattered across the country.⁸⁴

Lebanon's weak government and sectarian politics have also led to a patronage system of service provision, in which many citizens rely on sectarian political parties to receive goods and services. A large portion of the population depends on political parties to receive health care, education, food, and other material assistance. Sectarian parties use service provision as a tool by exchanging services for political support. The poorest individuals tend to also be those who are most reliant on their political patron, as they are unable to afford many goods on their own. Thus, parties will often target low income citizens, providing benefits with the expectation of securing votes.⁸⁵ The state's lack of public service provision is most directly to blame for the emergence of this patronage system, providing the space and the need "for nonstate actors such as international or domestic nongovernmental organizations (NGOs), religious charities,

⁸² Ibid, 227.

⁸³ "Failed Lebanon presidential election session goes unnoticed", *The Daily Star*, April 18, 2016, accessed April 19, 2016, <http://www.dailystar.com.lb/News/Lebanon-News/2016/Apr-18/347937-vital-president-election-session-to-go-unnoticed.ashx>.

⁸⁴ "More than 8,000 tons of trash lifted in 24 hrs: minister", *The Daily Star*, March 20, 2016, accessed April 19, 2016, http://www.dailystar.com.lb/News/Lebanon-News/2016/Mar-20/343174-more-than-8000-tons-of-trash-lifted-in-24-hrs-minister.ashx?utm_source=Magnet&utm_medium=Related%20Articles%20page&utm_campaign=Magnet%20tools.

⁸⁵ Melani Cammett, *Compassionate communalism: welfare and sectarianism in Lebanon* (Ithaca: Cornell University Press, 2014), 21.

and even political parties and movements to provide basic social services.”⁸⁶ Lebanon’s sectarian political patronage system can only be degraded by either a stronger central state that has the ability to provide public services, or by a wealthier society that does not need to rely on political parties.

In order to achieve real reform and effective government, many experts agree that Lebanon must work to transition towards a secular democracy, ending the broken confessional system. From a peacebuilding and stability perspective, “as long as the present sectarian model is in place, the question of long-term viability of Lebanon’s political system remains to be addressed, especially that destabilizing external threats may always re-emerge.”⁸⁷ The confessional system as it exists in Lebanon today is firmly entrenched, and replacing it will require considerable effort and a reversal of attitudes throughout the country. It is also possible that the current confessional system will not be abolished without major upheaval, perhaps even revolution. Peacebuilding efforts alone will be unlikely to radically transform the political system, however they can facilitate moderate changes. Focusing peacebuilding efforts around hydrocarbon development could lead to the adoption of better policies and begin to create stronger institutional reform.

⁸⁶ Ibid, 5.

⁸⁷ Samir Makdisi and Marcus Marktanner, “Trapped by Consociationalism: The Case of Lebanon”, *American University of Beirut Institute of Financial Economics, Lecture and Working Paper Series: 1* (2008): 13.

CHAPTER III:

TOWARDS A COMPREHENSIVE UNDERSTANDING OF PEACEBUILDING

In chapters 1 and 2, a detailed review of Lebanon's history of conflict, and its post-conflict characteristics was completed. An assessment of Lebanon's government, economy, and infrastructure revealed that there is an urgent need for reform and reconstruction. Research also clearly demonstrated that Lebanon has been severely impacted both by violence within its borders, and by spillover from other regional violence. Lebanon also remains at risk of renewed conflict with its neighbor Israel, due to heightened tensions surrounding the maritime border dispute and the presence of hydrocarbon resources in the disputed zone. The conditions that require peacebuilding efforts have been identified. In chapter 3, the dominant theories of peacebuilding and relevant literature will be addressed. The chapter will also include a case study of peacebuilding between Israel and Jordan over water resource cooperation, as an example of how natural resources can be a focus of peacebuilding efforts between two states. By developing a complete understanding of what peacebuilding practices entail, it will then be possible to develop a peacebuilding framework that is specific to Lebanon, and addresses its most critical needs. The chapter will conclude with an overview of the methodology utilized for this thesis, and a brief discussion of some of the study's limitations.

A. What is Peacebuilding?

The basic principle of peacebuilding at its core is a comprehensive effort to reduce and end violent conflicts, while simultaneously promoting a culture of peace in post-conflict societies, and preventing a repeated outbreak of violence. Peacebuilding refers to a holistic approach at conflict prevention, with a focus on preventing resurgence of conflict by strengthening a broad range of issues, from political processes and inclusive dialogue, to economic development and infrastructure. By treating a variety of subjects, peacebuilding aims not just to end violence, but to create structures that will maintain peace, and reduce the risk of future conflicts. From a logical perspective, the benefits of peacebuilding and conflict prevention seem clear: Fostering peace, and potentially ending conflicts. The need for peacebuilding can be better emphasized by understanding the damage of global violence from a factual perspective: The World Health Organisation (WHO) estimates that 700,000 people die in armed conflicts around the world every year, along with hundreds of thousands more who are displaced by violence, or who might die from the byproducts of violence, like poverty and hunger.⁸⁸ Human suffering is not the only consequence of conflict. The negative effects on political, social, and economic development are substantial. The OECD estimates that when a country experiences ongoing violence, economic growth averages a 2.2% decline per year. Furthermore, the cost of a typical civil war is estimated anywhere between \$4 and \$54 billion.⁸⁹ To further compound the financial impact, conflicts often occur in countries that already suffer from a weak economy, making the costs even more damaging. Such negative impacts were witnessed during Lebanon's civil war in which thousands died, and destruction was widespread. Similar, and even

⁸⁸ "Evaluating Conflict Prevention and Peacebuilding Activities", *Organization for Economic Cooperation and Development*, Factsheet 2008: 1.

⁸⁹ Ibid.

much more devastating events are also underway today in Syria. Thus, the importance and necessity of peacebuilding for preventing human suffering and economic turmoil cannot be overstated.

B. Theories and Basic Principles of Peacebuilding

There is no singularly recognized definition or framework of what constitutes peacebuilding. The concept first gained traction in United Nations discourse after Boutros Boutros Ghali authored his 1992 report *An Agenda for Peace*, in which peacebuilding was defined as “action to identify and support structures which tend to strengthen and solidify peace in order to avoid a relapse into conflict.”⁹⁰ The term peacebuilding does not explicitly appear in the UN charter, but over the past two decades the concept has continued to evolve in understanding and definition. The Brahimi report in 2000 described peacebuilding as activities solidifying the foundations of peace, and creating solid structures in the absence of war. In 2007, the UN Secretary General’s policy committee described peacebuilding as “involving a range of measures targeted to reduce the risk of lapsing or relapsing into conflict by strengthening national capacity at all levels for conflict management and to lay the foundations for sustainable peace and development.”⁹¹ While none of these descriptions promoted by the United Nations are wholly specific, the general concept of peacebuilding promoted by the organization is clear: Countries that have previously been in conflict or are at risk of developing conflict can mitigate such risk through cooperation on a mutually beneficial project that will strengthen capacity and improve internal or external relations. The

⁹⁰ “UN Peacebuilding: an Orientation”, *United Nations Peacebuilding Support Office*, last modified September, 2010: 45, http://www.un.org/en/peacebuilding/pbso/pdf/peacebuilding_orientation.pdf.

⁹¹ *Ibid*, 49.

importance of peacebuilding has also been emphasized by the United States Institute of Peace (USIP), particularly through its Global Peacebuilding Center. The USIP's mission coincides with that of the UN, specifically the intention to “prevent, mitigate and resolve violent conflicts around the world by engaging directly in conflict zones and providing analysis, education and resources to those working for peace.”⁹² Different to the UN, the USIP focuses more on educational activities, working with students and individuals across diverse backgrounds in countries around the world, to encourage activities that prevent violent conflict.

The 2004 Utstein study of peacebuilding outlines four different avenues of peacebuilding activities as identified by the Organization for Economic Cooperation and Development (OECD). Those are socioeconomic development, good governance, reform of justice and security institutions, and culture of truth, justice and reconciliation.⁹³ The OECD's peacebuilding framework and guidelines provide a broad blueprint of areas for intervention, and for focusing peacebuilding activities, all aimed at strengthening the capacity of the state:

Socioeconomic development aims not just to achieve economic advancement, but especially emphasizes equitable development and economic practices. It is important that economic rehabilitation also considers issues of gender equality, equal distribution of development benefits, and balanced physical reconstruction across all regions of a country. Socioeconomic reforms also include equitable access to services for all citizens, the reintegration or repatriation of displaced persons, and the sustainable

⁹² “Peace Global Peacebuilding Center Mission”, *United States Institute of Peace*, accessed April 01, 2016, <http://www.buildingpeace.org/about-us/mission>.

⁹³ Richard Matthew, “Environment, conflict and peacebuilding”, *Handbook of global environmental politics*: 118.

use of natural resources.⁹⁴ Those tenets are all applicable to Lebanon, especially as they relate to Lebanon's lack of public service provision, the presence of over 1 million displaced refugees, and the need for sustainable utilization of water and energy natural resources.

The development of good governance is again applicable to the Lebanese case. It highlights the need for establishing electoral processes, democratization, transparency and accountability, as well as anti-corruption programs. In addition to political reforms, good governance emphasizes the need to foster strong civil society, freedoms of expression and association, media development, and participatory processes.⁹⁵ Although Lebanon is technically a democracy, it is in need of substantial reforms in many avenues of good governance, particularly as they relate to a more transparent and functional political system.

The last two peacebuilding principles outlined by the OECD are reform of justice and security, and a culture of truth and reconciliation. Justice and security reforms are rather straightforward; including efforts of disarmament, peacekeeping, weapons reduction, and reformation of the security sector. Promoting a culture of truth and reconciliation might actually be the most difficult of the four peacebuilding processes, as it requires healing many of the non-physical wounds resulting from war, and recognizing any crimes that were committed. The process of reconciliation requires educating the population about peace and non-violence, paying reparations if applicable, promoting inclusive dialogue, and holding trials for war crimes. Lebanon has done little since 1990 to promote post-war reconciliation, opting instead for a policy of silence, and refusal to openly address the conflict. Lebanon even ruled out the

⁹⁴ "Evaluating Conflict Prevention and Peacebuilding Activities", *Organization for Economic Cooperation and Development*, Factsheet 2008: 2.

⁹⁵ Ibid.

possibility of war crimes trials, issuing an amnesty law in 1990 that effectively erased any crimes committed by militia leaders, many of whom have since held important political positions.⁹⁶

Bruch et al. describe similar pillars of peacebuilding to those outlined by the OECD. Bruch's main pillars are establishing security, restoring services, revitalizing economy and enhancing livelihoods, and rebuilding governance and political processes.⁹⁷ While some of Bruch's principles do not require further analysis since they have much in common with the OECD recommendations, the framework does differ in its emphasis on the importance of restoring services, highlighted as a practice unique from the broader idea of socioeconomic development. Restoring services is a critical post-conflict undertaking. It can include restoring water services, improving sanitation, waste disposal, education, health care, and energy.⁹⁸ Lebanon is in significant need of improving many of those services. Much of its basic infrastructure was destroyed or damaged first during the civil war, and then again during the 2006 Israeli conflict. Today, the massive population of Syrian refugees is a serious strain on all elements of the country's basic infrastructure and services. Thus, the restoration of services should be a primary focus of Lebanon's peacebuilding efforts. It is an undertaking that can induce positive impacts across several areas of the country, and one that could also be accomplished in part by cooperation on hydrocarbon production.

Although there are several different foundations for effective peacebuilding activities, common themes clearly exist across all theories: Peacebuilding should

⁹⁶ Omar Nashabe, "Lebanon: A Failed Version of Justice", *Al Akhbar English*, August 25, 2012, accessed April 07, 2016, <http://english.al-akhbar.com/node/11440>.

⁹⁷ Carl Bruch et al., "International Law, Natural Resources and Post-Conflict Peacebuilding: from Rio to Rio+20 and Beyond," *Review of European Community and International Environmental Law* 21 (2012): 46.

⁹⁸ *Ibid*, 47.

primarily aim to rebuild and strengthen state capacity, by improving economic development on an individual and state level, restoring basic services to the country, improving political processes, ensuring security, and promoting cooperation and reconciliation.

C. The Role of Natural Resources in Peacebuilding

Natural resources are a crucial component in post-conflict development, and “it is impossible to build long-term peace successfully without effectively integrating natural resources into peacebuilding programmes.”⁹⁹ If managed effectively, the impact of natural resources can stretch across all pillars of the peacebuilding process. The UN has reflected this importance by outlining the sustainable use of natural resources as the foundation for livelihoods and essential services, and by emphasizing the necessity of a shared vision between divided communities on the use of natural resources for development.¹⁰⁰ Livelihood revitalization, economic development, reconciliation, and governance and rule of law all have strong natural resource dimensions. In particular, extractive resources such as hydrocarbons can create opportunities to collect government revenues, provide employment, rebuild infrastructure, and improve underdeveloped regions or communities.

Natural resources can be used to support existing peacebuilding efforts, by integrating resource management into already existing, or emerging peacebuilding structures. Resources can also facilitate new peacebuilding practices, forming the groundwork for future cooperation, and serving as a starting point for broad

⁹⁹ Ibid, 49.

¹⁰⁰ “From Conflict to Peacebuilding, The Role of Natural Resources and the Environment” *United Nations Environment Programme*, last updated February, 2009: 31
http://www.unep.org/pdf/pcdmb_policy_01.pdf

coordination and peacebuilding efforts across other matters.¹⁰¹ As natural resource management is usually a large-scale process requiring cooperation across many sectors and among many stakeholders, it can foster additional cooperation on other important issues. Recognizing the importance and scale of natural resources, resource-focused peacebuilding requires consideration of a number of factors: A wide focus is required, beyond only the resource in question, since resources can impact a variety of different critical issues. Resource peacebuilding must be an adaptive approach, conforming to unexpected incidents or needs. Coordination is essential among the different stakeholders or potential actors involved, especially considering the scale and complexity of natural resource management. Finally, resource peacebuilding must include community engagement. The production and use of natural resources impacts all levels of a country, and often will impact local communities, especially in regions where the resources are located. Community engagement through education, protection, or revenue sharing, will help ensure that resource peacebuilding has a positive impact across all levels of society.¹⁰²

While natural resources have the potential to foster peacebuilding and positive growth, limited or strained resources can easily exacerbate existing tensions or lead to new conflict. Natural resources have been linked to forty percent of all interstate conflicts over the past sixty years, and during the past two decades alone, “at least eighteen violent conflicts have been fueled by the exploitation of natural resources.”¹⁰³ The propensity for conflict underscores the risks if Lebanon does not effectively manage the exploitation of its hydrocarbons. If resources are mismanaged and benefits

¹⁰¹ Carl Bruch et al., “Natural Resources, Infrastructure, and Post-Conflict Peacebuilding: Lessons from the United States and Japan”, *Asian Journal of Environment and Disaster Management*, 1 (2010): 4.

¹⁰² *Ibid*, 6.

¹⁰³ “From Conflict to Peacebuilding,” *United Nations Environment Programme*, 31.

are distributed inequitably it can undermine governmental legitimacy, lead to grievances, and increase the likelihood of a resurgence of conflict.¹⁰⁴ In some cases, if high value resources, such as hydrocarbons or minerals, are located in distinct parts of a country, it can cause tensions over how revenues are shared among different interest groups.

Particularly pertinent to Lebanon is the unique risk of high-value natural resources, of which oil and gas certainly qualify. For countries with weak political regimes, high-value resources can sustain or encourage corruption, representing a tool by which the political elite can exploit revenue, and further entrench their positions of power and influence. Instead of contributing to economic advancement as resource utilization should logically do, high-value resources within corrupt regimes might instead hinder economic development.¹⁰⁵ The risk of hydrocarbon production leading to conflict is also especially evident within the context of Lebanese-Israeli relations. Relations between the two states are already highly strained, and there are frequent fears of renewed conflict. Both countries possess oil and especially natural gas reserves in their territorial waters. Some of those resources are also located in wells that straddle both territories, and are located in the disputed maritime zone between the countries. Thus, these hydrocarbon reserves do represent a potential threat of conflict over access to the valuable resources. Conversely, the high-value potential of hydrocarbons could also encourage cooperation over oil and gas, which could allow both Lebanon and Israel to more easily and effectively exploit and develop their resources, while also mitigating the risk for conflict between the two states. Recognizing the value of resources, and the

¹⁰⁴ Carl Bruch et al., “International Law, Natural Resources and Post-Conflict Peacebuilding: from Rio to Rio+20 and Beyond,” *Review of European Community and International Environmental Law* 21 (2012): 49.

¹⁰⁵ Sandra Nichols, et al., “When Peacebuilding Meets the Plan: Natural Resources Governance and Post-Conflict Recovery”, *The Whitehead Journal of diplomacy and International Relations*, 12 (2011), 11.

threat of conflict, it is especially important to encourage practices targeted towards peacebuilding.

When assessing how natural resource projects should be managed, it is important to consider the unique factors of the country in question, such as history, culture, or government. Depending on the country characteristics and the type of natural resources, a method of natural resource management might utilize a centralized or a decentralized approach.¹⁰⁶ A decentralized approach would not just be controlled by the central authority of a country, but would also heavily involve local governments or communities. Involvement could entail a number of factors, such as allowing local authorities to share in the decision making process, negotiating between interest groups over the method of developing the resource, or direct revenue sharing between the government and local communities.¹⁰⁷ Since natural resources often impact across a variety of sectors in a country, they also frequently require that multiple questions and diverse needs be addressed, in which case decentralized management might be most effective. For example, a single, overarching law implemented by the central government to deal with oil production might not take into consideration other byproducts or secondary issues that will emerge; laws to govern the direct oil production process might not consider local environmental impacts, or worker's rights issues. Incorporating other governing bodies like local authorities into the management process can allow for a wider range of potential issues to be covered.¹⁰⁸

One of the most important benefits of decentralized resource management is the possible ability to mitigate corruption at a national level.¹⁰⁹ By involving other

¹⁰⁶ Sandra Nichols, et al., "When Peacebuilding Meets the Plan," 12.

¹⁰⁷ Ibid, 13.

¹⁰⁸ Ibid, 13.

¹⁰⁹ Ibid, 15.

authorities in local governments and communities, the project will not be controlled only by the ruling elite of a country, and theoretically, there will be more “checks and balances” on the management process. However, when dealing with a large-scale, and highly-valuable extractive resource such as natural gas or oil, it will often actually be more effective and efficient to have the whole process controlled and regulated by the central government.¹¹⁰ For large and valuable resources such as hydrocarbons, the extraction and production process is very complex and intensive. If it is controlled by a central authority, it could be easier to manage all of the different parts of the process, and prevent too many actors or interests from complicating the process even further, as the old saying goes, “too many cooks spoil the broth.” In many decentralized management approaches, revenues are directly shared with local governments in regions where production takes place. This could cause tensions and actually hinder the positive potential of resources for peacebuilding. Unequal distribution of revenues and imbalanced developed for only certain communities might occur.

D. Potential Vulnerabilities of Peacebuilding

It is important to recognize that peace processes and peacebuilding structures are imperfect, and some might even argue that they are inherently vulnerable. There is no one-size fits all approach to peacebuilding, instead each process must be tailored according to the specific situation and context being addressed. Likewise, peace processes should naturally be in flux, and adapt according to the changing needs and circumstances of a country or community.

¹¹⁰ Ibid.

One argument for mitigating the vulnerability of peacebuilding structures is to ensure internal ownership, without relying heavily on external support. Hans Siebert argues that peacebuilding processes can include useful roles for external actors when they assist local participants and stakeholders, however international intervention, particularly for infrastructure projects carries significant risk. Particularly when peacebuilding processes are being undertaken in a weak or vulnerable country, external actors could try and manipulate peace infrastructures to pursue their own interests, effectively using peacebuilding as a mode of intervention.¹¹¹ Thus, “peace cannot be brought in from the outside, but can only built from the inside with the non-interventionist support of external friends.”¹¹² This is of particular concern for Lebanon, which is largely reliant on external support for infrastructure and development. Unlike the ideal situation as described by Siebert, many of Lebanon’s external “allies” do view involvement in internal Lebanese projects as a means of intervention and manipulation of Lebanese internal affairs. Any future peacebuilding process that involves foreign support, such as hydrocarbon development projects, must be careful to remain under the control and supervision of internal actors.

However, while peacebuilding must be wary of foreign influence, in some cases external involvement is necessary, particularly when the existing system is too weak to implement a functional peacebuilding project. For example, the pitfall of manipulation in peacebuilding practices can also be true without the presence of foreign intervention. In particular, an economically and governmentally weak country will be vulnerable to manipulation, particularly where political corruption and power imbalances allow one or a small number of stakeholders to dominate the design and establishment of

¹¹¹ Hannes Siebert, “National Peace and Dialogue Structures”, *Berghof Handbook Dialogue Series*, 10 (2012): 34.

¹¹² *Ibid*, 37.

peacebuilding infrastructure.¹¹³ In these cases, involvement from an external actor could help mitigate corruption and ensure the implementation of fair and effective processes. International involvement is especially effective if there is a shared communal goal, both within the target country itself, and also in cooperation with the external actor. Lebanon's oil and gas development represents a potential example of shared objectives, where a development project could involve the mutual interests of internal and external actors, contributing to the creation of a common future goal; successful development and profit generation from hydrocarbon resources.

Taking all of these points into consideration, a framework for effective environmental peacebuilding should involve a common strategy over a critical environmental issue, or a shared natural resource. The project should primarily be nationally owned, but could also have external stakeholders involved so as to include external parties who can help ensure that the project is implemented correctly. The involvement of other interested parties can also help mitigate the potential for manipulation or corruption. When addressing peacebuilding efforts between states (Israel and Lebanon in this case), involvement of external actors could mitigate a potential conflict relapse, as there are more diverse interests at stake that are invested in the project's success. Finally, peacebuilding projects should be based on the needs and the situation of the countries involved, and as such, they may evolve or change over time. Thus, it is important to emphasize that peacebuilding is a long-term, and ongoing practice. Hydrocarbon resources, specifically oil and gas, have the potential to fulfill those qualifications for peacebuilding practices. Within Lebanon, there is a clear need for peacebuilding and cooperation over the rehabilitation of deficient sectors, and the

¹¹³ Ulrike Hopp-Nishanka, "Giving Peace an Address?", *Berghof Handbook Dialogue Series*, 10 (2012): 10.

prevention of internal conflict. Externally, there is a growing need for countries around the world, and especially the Mediterranean, to diversify their energy sources, and exploit new potential resources. For Lebanon and Israel, cooperation over oil and gas can mitigate the risk of renewed conflict, and provide material benefits to both countries.

E. Natural Resource Peacebuilding Between States: The Case of Jordan and Israel

Much literature linking peacebuilding with natural resources focuses on water resources, as they are essential to a state's development and prosperity.¹¹⁴ While this particular study does not focus on water, it is still a useful case to examine. The role and situation of water resources in the region share many similar characteristics to hydrocarbons, as an important and limited natural resource of high value, often located within territory that is shared by neighboring states. Specifically, existing water resource cooperation projects demonstrate that there is potential for Israel to engage in resource-focused peacebuilding efforts with its neighbors.

Water has historically been a source of tension between Israel and Jordan. Competition between Israel and its neighbors for use of the Jordan River and the Jordan River basin began almost immediately after the formation of the Israeli state in 1948, as both states sought to extract from the shared water sources on their borders. In fact, some scholars argue that the struggle over water resources “was the main contributing

¹¹⁴ See for example: Karin Aggestam and Anna Sundell-Eklund, “Situating water in peacebuilding: revisiting the Middle East peace process”, *Water International*, 39 (2014); Mark Zeitoun, “Not All Water Cooperation is Pretty”, *New Security Beat*, June 04, 2008, <http://www.newsecuritybeat.org/2008/06/not-all-water-cooperation-is-pretty/>; Ashok Swain, “Water and post-conflict peacebuilding”, *Hydrological Sciences Journal*, (2015): DOI: 10.1080/02626667.2015.1081390; and Richard Matthew, “Integrating climate change into peacebuilding”, *Climate Change*, 123 (2013): 83-93.

factor to the escalation...that led to the Six-Day War.”¹¹⁵ However, over the past two decades Israel and Jordan have worked together to solve each country’s water needs, culminating most recently in the signing of a major agreement to desalinate water from the Red Sea, thereby providing water to Israel and Jordan as well as helping to reverse the rapid contraction of the Dead Sea.

Signed in December of 2013, the Red Sea - Dead Sea agreement aims to alleviate water shortages in both countries, with Jordan’s manager of the project stating that the plan will effectively solve the country’s water problems for the next 30 years at least.¹¹⁶ The plan is centered around the construction of a desalination plant in Aqaba, Jordan’s port city located in the southernmost point of the country on the Red Sea. The project is adapted to meet the current needs of each country: Jordan seeks access to alternative water sources, and it lacks the necessary resources to develop such supplies on its own. Aided by Israel, who already has experience with desalination, Jordan can successfully utilize new forms of water extraction. The plan requires enhanced interaction and cooperation between both countries, further cementing its potential to be an effective peacebuilding exercise. It establishes a more complex relationship over the use and distribution of a scarce resource, and creates more interdependence between Jordan and Israel while helping each country alleviate its specific needs. The project makes the two countries more interconnected and reliant on each other, thus helping them avoid conflict as they will depend on peaceful cooperation to secure some of their water resources. In further keeping with the framework of peacebuilding, the project will be nationally owned by Jordan, and will also involve outside stakeholders, in the

¹¹⁵ Moshe Shemesh, “Prelude to the Six-Day War: The Arab-Israeli Struggle over Water Resources”, *Israeli Studies*, 9 (2004): 37.

¹¹⁶ “Jordan hopes controversial Red Sea Dead Sea project will stem water crisis”, *The Guardian*, march 20, 2014, accessed October 20, 2015, <http://www.theguardian.com/global-development/2014/mar/20/jordan-water-red-sea-dead-sea-project>.

form of external investors and contractors for construction, in addition to support from the World Bank.

The potential benefits of peacebuilding activities to both Israel and Lebanon are clear. However, the reality of whether such activities can or will be implemented is another matter, and will be discussed in greater detail later on. In addition, this thesis will focus more specifically on the role of natural resources, specifically hydrocarbons, as a potential driver for cooperation over production, which could perhaps lead to more broad peacebuilding activities.

F. A Peacebuilding Framework for Lebanon

Peacebuilding is a broad endeavor, one that can involve a number of different focuses. In order to assess Lebanon's peacebuilding prospects for the purposes of this study, it is important to determine a process that is suitable to its needs, and one that considers the unique aspects of hydrocarbon production. Drawing from the theoretical background of peacebuilding, and the most important aspects of successful practices, a framework of peacebuilding efforts surrounding hydrocarbon production in Lebanon should consider the following:

Successful peacebuilding in Lebanon must be a cooperative process spanning sects and communities. It should foster economic development and improve infrastructure, and it should include efforts to reform government and political processes. Finally, peacebuilding should seek to improve Lebanon's regional security especially by reducing conflict with Israel.

In the following chapters, the role that hydrocarbon production can have on the peacebuilding process will be assessed in detail.

CHAPTER IV:

ANALYZING POTENTIAL HYDROCARBON DEVELOPMENT WITHIN THE PEACEBUILDING FRAMEWORK

Background research in chapters 1 and 2 has established that Lebanon retains many features of a post-conflict state, specifically deficiencies in many of the most vital sectors of development. In chapter 3, a review of peacebuilding theories and literature within the Lebanese context led to the development of a comprehensive peacebuilding framework for Lebanon, which entails: Internal cooperation, economic development and improving infrastructure, reform of government and political institutions, and mitigating conflict with Israel. As this study continues to address the question of if oil and gas development can be a driver for peacebuilding, Chapter 4 will analyze the potential impact of hydrocarbon production for each of the pillars of peacebuilding. The goal is to assess the possibility of hydrocarbon development leading to positive peacebuilding practices. Peacebuilding is concerned with strengthening capacity, improving state structures, and addressing the factors that lead to conflict, in the hopes of maintaining peace and preventing a relapse into conflict. Hydrocarbon development is uniquely suited to serve as a foundation for peacebuilding efforts. The successful development of oil and gas resources on its own is a complex and large-scale process that requires enhanced cooperation and action from across all areas of a country. Hydrocarbons are unique in that successful development can impact all levels of the peacebuilding process. Thus, if undertaken correctly, the development of hydrocarbon resources could foster positive change and lead to successful peacebuilding.

The first step in this analysis is to undertake an examination of Lebanon’s hydrocarbon potential, to determine to what extent development might be able to impact peacebuilding processes.

A. The Potential for Oil and Gas Production

In 2010, the United States Geological Survey (USGS) estimated that the Levant Basin of the eastern Mediterranean is likely to contain 1.7 billion barrels of oil, in addition to 122 trillion cubic feet (Tcf) of natural gas.¹¹⁷ The Levant Basin extends across the eastern Mediterranean, off the territorial waters of Syria, Cyprus, Lebanon, Israel, and Egypt. However, a significant share of resources, especially natural gas, is believed to be located in Lebanese territorial waters. All of Lebanon’s offshore territory has been surveyed by 2-dimensional seismic surveys, and 70 percent has been covered by more accurate 3-dimensional surveys. The results indicate a strong possibility of 30 – 45 Tcf of natural gas, equivalent to 5.2 – 7.5 billion barrels of oil, enough to sustain production for 14 – 20 years at 1 million barrels per day (It is believed that Lebanon possess substantially more gas than oil reserves, but for simplicity sake, gas reserves are often referenced in barrels of oil as the two can be converted).¹¹⁸ While the preliminary results are promising, the actual proven amounts will not be known until drilling begins. All signs point to Lebanon possessing valuable quantities of hydrocarbons, and initial production in Cyprus and Israel has been successful, indicating that the general estimates for the Levant basin appear to be realistic.

¹¹⁷ “Overview of oil and natural gas in the Eastern Mediterranean region”, *U.S. Energy Information Administration, Eastern Mediterranean Region*, August 15, 2013, accessed November 25, 2015, http://www.eia.gov/beta/international/analysis_includes/regions_of_interest/Eastern_Mediterranean/eastern-mediterranean.pdf.

¹¹⁸ Mounir Rached, “What are Lebanon’s oil and gas prospects”, (presentation, American University of Beirut, October 22, 2015).

Lebanon's oil and gas reserves have drawn significant interest from foreign energy companies: In 2013, 46 international companies applied for pre-qualification for gas exploration. Of those 46 companies, 12, comprising many of the world's most prominent energy corporations, were qualified for exploration licenses.¹¹⁹ However, progress has been stalled by political ineffectiveness, and drilling cannot commence until the Lebanese Parliament passes two final decrees. Thus, any advancement towards realizing Lebanon's resource wealth hinges on at least minimal political progress. If Lebanon is able to approve the next phase of exploration soon, it will still be a number of years before actual drilling and extraction can begin.

As previously mentioned, the exact amounts of oil or gas won't be determined until physical exploration has commenced, although the initial seismic scans in Lebanese waters and across the Levant basin as a whole, do yield strong possibilities for positive results. It is already known, for example, that Lebanon will possess much greater amounts of natural gas than crude oil. So far, Lebanon has divided its offshore territory into 10 exploration zones, delineated according to estimates from the preliminary seismic scans that have been completed. The separate zones are established largely for licensing purposes. Interested companies can enter into a production contract with the Lebanese government for the right to operate in a certain zone. While seismic scans cannot predict with 100% accuracy, they do provide estimates with varying degrees of certainty based on the geographical conditions, and other indicators of

¹¹⁹ "Lebanon First Offshore Licensing Round Pre-Qualification Results", *Republic of Lebanon Ministry of Energy and Water*, April 18, 2013, accessed December 02, 2015, <http://www.lpa.gov.lb/pdf/Pre-Qualification%20Results%20Presentation.pdf>.

hydrocarbon potential.¹²⁰ Thus, most zones are labeled with a percentage possibility of how much oil or gas they are likely to contain.

The first licensing round for pre-qualified companies to begin exploration was supposed to have taken place in August 2013. Instead, the deadline was delayed three times before the Ministry of Energy announced that it would not set anymore dates for licensing.¹²¹ Frustration has grown as the Lebanese Parliament has failed to pass the necessary decrees to move forward in the exploration process. As each day passes, the potential for required government action appears more difficult, especially as other major decisions have been immensely problematic, such as filling the nearly two-year presidential void, or implementing a plan to dispose of garbage. Many individuals within Lebanon do believe that oil and gas production will become a reality, and some are “very optimistic that the decrees will be signed, maybe even in 2016, once the government blockage is fixed, and based on the high priority within the government for beginning oil and gas exploration.”¹²² However, as the delays continue some of the enthusiasm of foreign energy companies to produce Lebanon’s oil will also decline. There has already been some reduction of interest in pursuing exploration and development in Lebanon, from the companies originally pre-approved. Loss of confidence has not been because of discouraging hydrocarbon prospects, but instead has been directly related to the inability of Lebanon’s government to make any progress, and its continued stalling of the hydrocarbon licensing stage. Such attitudes are likely to be found among other of the potentially interested companies, who might now be less

¹²⁰ John McFarland, “How do seismic surveys work?”, Oil and Gas Lawyer Blog, April 15, 2009, accessed March 20, 2016, <http://www.oilandgaslawyerblog.com/2009/04/how-do-seismic-surveys-work.html>.

¹²¹ Sarah Bou Atmeh, “Lebanon’s oil and gas prospects: Petroleum Management Lebanon Ministry of Finance,” (presentation, American University of Beirut, October 29 2015).

¹²² Ibid.

willing to enter into contracts that would be more favorable to the Lebanese government, for fear of higher risk. Lebanon's inability to maintain the planned timeframe has also resulted in missing out on what would have been advantageous oil and gas prices, which have now plummeted significantly. Still, this study must address the prospects of hydrocarbon production and impacts, under the assumption that production will eventually be undertaken. Oil prices will eventually rebound, and while there have been obvious setbacks, production still does remain a real possibility. It will even be argued that delays could end up being a positive factor in allowing Lebanon to successfully exploit its hydrocarbons.

B. Hydrocarbon Development and Cooperation

Peacebuilding is a holistic process, one that seeks to mitigate conflict by improving many core aspects of the state, and by building strong institutions that can help a country maintain peace. In this regard, peacebuilding practices can be considered large-scale projects with a broad focus that require coordination and efforts across many areas. One of the key components of peacebuilding that is especially important for Lebanon, is promoting cooperation across the country, especially by collaborating on a mutually beneficial project. Hydrocarbon resources are somewhat unique in that their development includes a broad range of impacts. Furthermore, successful oil and gas development requires enhanced cooperation from across society.

Lebanon has historically been a divided society. Many of its conflicts, especially the civil war, were caused by splits along sectarian lines. Although Lebanon today is much less divided than it was during the war, and even perhaps prior to the war, there still remain tangible rifts between sects and social classes. It should not be suggested

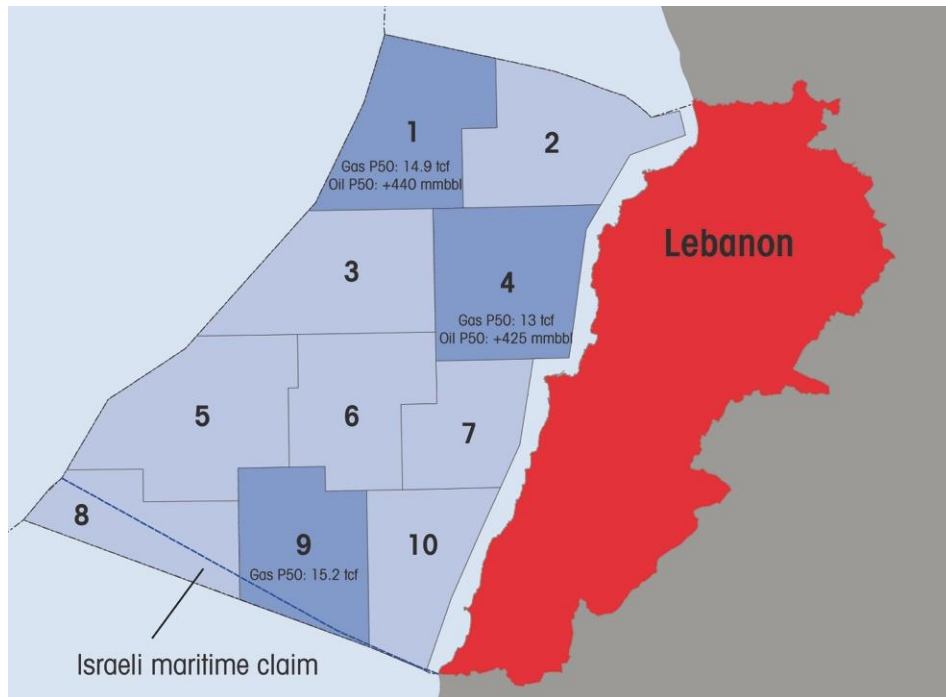
that oil and gas development can fix sectarianism, or that it will form a united population free from religious or social divisions. However, oil and gas is unique in the way that it needs to be exploited. It calls for enhanced collaboration, and it could incentivize intergroup collaboration within Lebanon.¹²³ On the state level, successful hydrocarbon development requires coordination between many different offices and ministries; concerning the environment, economy and finance, legal issues, security, and of course infrastructure and energy. Coordination has already emerged within Lebanese society, evidenced by the formation of numerous NGOs and civil society organizations concerned with managing oil and gas, and guiding state practice with policy and technical recommendations. It is even possible that hydrocarbons could foster political cooperation. International corporations invest huge amounts of money, time, and resources into exploration and production practices. As a result, few companies will be willing to operate within a country that suffers from political discord. Production contracts are less likely to be favorable to the Lebanese government, if the investing company assesses the risks to be very high. Thus, if Lebanon really is interested in benefitting from its resources, the presence of oil and gas could theoretically mitigate political tension and promote cooperation around the common goal of successful hydrocarbon production.¹²⁴

From a physical and geographical perspective, oil and gas production will also impact many regions of the country. Based on the preliminary seismic surveys, hydrocarbons are not located in one isolated offshore zone. Instead, the resources are located in different pockets that stretch along the entire coast of the country.

¹²³ Alex Brown, Interview with Melani Cammett (Beirut, March 24, 2016).

¹²⁴ Lara Nabil Boughanem, "The Curse of Natural Resources: A Vulnerability Assessment for Lebanon", AUB Thesis for Department of Economics. April 2014: 56. <https://ulib.aub.edu.lb/thesis/pj-1792.pdf>

Figure 2 Lebanon's Oil and Gas Zones



Source: Jeremy Arbid, "High expectations", *Executive*, October 08, 2014, accessed April 20, 2016, <http://www.executive-magazine.com/economics-policy/oil-and-gas-expecting-a-lot>.

There are always concerns in Lebanon that benefits will only be provided to certain communities, political groups or religious sects. However, production activities will affect many different communities, as the resources are located in offshore regions surrounding different municipalities, and composed of different sects.¹²⁵ Still, concerns that the benefits will only reach certain religious groups prevail. One expert who was interviewed suggested that the main reason the decrees necessary to continue with the licensing process have not been passed, is because "Sunni politicians are blocking the decree because they fear that they will not receive any revenue or benefit from the oil and gas, and that hydrocarbons are not located in zones near their communities."

¹²⁵ Alex Brown, Interview with Mounir Rached, (Beirut, February 25, 2016).

The cooperation required for hydrocarbon development, and that could be sparked by development, is an important part of successful peacebuilding efforts. The nature of oil and gas, as well as how it is located in Lebanon, indicate that cooperation is definitely possible. Coordination efforts so far seem to indicate that there will be improved cooperation over hydrocarbons, however considerable challenges still remain, as evidenced by the continued inability of political actors to work together.

C. Economic Development and Improving Infrastructure from Hydrocarbon Resources

As outlined in previous sections of this thesis, Lebanon's economy is one of the sectors that has suffered the most from repeated conflict and unrest. Despite some efforts to stimulate growth and investment, the economy continues to drastically underperform. Lebanon's GDP has slowed considerably over the past few years, and economic development is severely lacking. Peacebuilding is concerned with creating structures to improve all facets of a country in the hopes of fostering stability and future peace. Internally, improving economic conditions can reduce the risk of internal conflict, as long as development is relatively equal across the country and for all citizens. One of the principle causes of Lebanon's civil war was uneven development, and poor economic conditions for thousands people. Thus, a comprehensive peacebuilding process must address economic issues so as to create positive growth for the entire country.

The first step towards achieving economic growth from hydrocarbon development will be the generation of revenue from oil or gas. In assessing specifically what the wealth potential from hydrocarbons will be, there are important factors to consider; especially the amount of hydrocarbon resources, and the ability to profit from

them. It is useful to put the estimated reserves into a larger regional context, to help understand the hydrocarbon potential, and more specifically the gas potential as gas reserves are likely to be Lebanon's most valuable resource. Preliminary 2-D and 3-D seismic scan results indicate at least a 50% probability of Lebanon possessing 30-45 Tcf of natural gas. Putting this into a larger context, Europe's annual demand is estimated to reach 20 Tcf by the year 2020.¹²⁶ 35 Tcf of gas would be enough to supply 8% of Europe's estimated demand for a period of 20 years. This estimation would also account for Lebanon's potential extraction rate, procuring and supplying about 1.5 Tcf of gas per year. At first glance, these figures might seem to indicate that Lebanon's reserves would create only a minor impact on the global or even the regional supply. It is true that on a global scale Lebanon's reserves represent a small amount, however for the European market, that potential 8% could provide an important piece of Europe's energy imports, particularly as the European Union looks to diversify its gas supplies. Recent political events, as well as a global push for energy diversification, have driven Europe to be much more proactive in searching for new energy sources. Natural gas figures strongly into the EU's future energy plans, and efforts are being made to find new suppliers other than Russia, which currently dominates gas provision to Europe.¹²⁷ Lebanon is also already connected to the Arab Gas Pipeline, a network that would help facilitate the export of gas to Europe by way of Turkey.¹²⁸ Some have proposed the idea of building a liquefied natural gas (LNG) terminal to allow Lebanon to export LNG, but

¹²⁶ Mounir Rached, "What are Lebanon's oil and gas prospects", (presentation, American University of Beirut, October 22, 2015).

¹²⁷ Frédéric Simon, "EU plans major offensive to diversify gas supplies", *EurActive*, June 02, 2015, accessed March 31, 2016, <https://www.euractiv.com/section/trade-society/news/eu-plans-major-offensive-to-diversify-gas-supplies/>.

¹²⁸ Lara Nabil Boughanem, "The Curse of Natural Resources," 57.

this idea is unlikely to be financially viable unless a partnership is reached with neighboring countries, or reserves prove to be far greater than expected.

In order to earn revenues from gas reserves, the resource must be exported to other countries who are willing to purchase it. It has already been established that there is sufficient demand for hydrocarbon resources, and that there are numerous companies willing to extract and sell Lebanon's reserves. It is difficult to estimate exactly how much revenue Lebanon stands to gain, since actual amounts of gas are not yet known, and also because of considerable price fluctuations. Most experts consulted for this research had based their assessments according to global oil prices, and using what had been considered a reasonable estimate of future prices at \$70 per barrel. If we do accept a \$70 per barrel price, assuming more conservative assessments of potential gas reserves and accounting for licensing costs, Lebanon would potentially take in around \$170 billion in revenue.¹²⁹

Depending on the actual resource findings once exploration and production have commenced, Lebanon's profits could be even greater, or conversely they might fall below expectations, especially if oil and gas prices at the time are unfavorable. It is important to emphasize that revenue estimates could change significantly, subject to the price of oil, the actual proven reserves, as well as a number of other influencing factors. Over the past year alone, the price of oil has dropped dramatically from around \$70 a barrel in May of 2015, to below \$40 as of March, 2016.¹³⁰ It is unknown when, or if, oil prices will recover and stabilize. Many analysts are predicting a prolonged period of at

¹²⁹ Mounir Rached, "Sovereign Fund Management," (presentation, Organization for Petroleum and Energy Sustainability conference, Beirut, November 21, 2015).

¹³⁰ "1 Year Crude Oil Prices and Price Charts", *Investment Mine*, March 30, 2016, accessed March 30, 2016, <http://www.infomine.com/investment/metal-prices/crude-oil/1-year/>.

least two years with low oil prices, before any recovery is realized.¹³¹ However, the price of oil will certainly stabilize at some point, and it is not unrealistic to assume the prices will once again reach the \$70 mark at least. Regardless of how favorable the production conditions might become, revenues will not come close to the levels of oil rich Gulf States, as some within Lebanon seem to fantasize. However, Lebanon can still expect a substantial, and possibly transformative boost of income. If we assume for arguments sake that the \$170 billion figure quoted by experts represents a realistic estimate of Lebanon's profit potential, it would provide significant financial opportunities for a country with a \$50 billion GDP, not to mention the advantage of bringing Lebanon closer to energy self-sufficiency.

1. Managing Oil and Gas Wealth

One important issue to consider is how hydrocarbon revenues would be used. All experts consulted for this study agreed that some of the most important sectors in need of investment are infrastructure, education, transportation, and basic services. Hydrocarbon production will lead to a substantial boost in wealth, one that can be used not just to improve the economy, but also to improve Lebanon's infrastructure and services. In fact, many of those issues are deeply interconnected: Wealth from hydrocarbon development will create greater opportunities to invest in education, rebuilding roads, improving water supplies and waste management, and reforming the energy and electricity sector. Likewise, improving many of those sectors are also prerequisites for successful hydrocarbon production, as the process of production itself

¹³¹ Christopher Adams, "Sapura Kencana predicts oil price will take two years to recover", *Financial Times*, January 04, 2016, accessed March 30, 2016, <http://www.ft.com/cms/s/0/fac6b704-a00a-11e5-8613-08e211ea5317.html>.

will necessitate improvement, even before resource revenues begin to flow. Successful production will require adequate transportation networks for the transport of equipment, materials, and for the production process, as well as to allow for successful export of extracted materials. Offshore hydrocarbon extraction is a highly intensive and complex undertaking, and other areas of infrastructure like electricity, internet, or even roads, will need to be improved as part of the production process.¹³² While international energy companies are interested in producing Lebanon's hydrocarbons, one energy expert expressed that some companies might also push for certain core infrastructure components to be improved to ensure that production can be accomplished effectively. Because of the considerable investment that companies assume when developing a country's oil and gas resources, they will also look to mitigate some of the risk by ensuring that infrastructure and capacity is sufficient to allow for successful production.

As part of the Lebanese Petroleum Authority's (LPA) Exploration and Production agreement, it is required that Lebanese employees constitute 80% of the total workforce for hydrocarbon projects, and the Offshore Petroleum Resources Law stipulates that rights holders will give priority to Lebanese when awarding contracts or construction of facilities, supplies of materials, goods, or services related to petroleum activities.¹³³ Lebanon's regulatory framework requires that licensed companies ensure Lebanese themselves will benefit from the production process as much as possible. In order to realize that benefit, there must exist a qualified and prepared workforce in Lebanon, ready to be utilized by production companies. Education programs must be instituted in the country to build a qualified workforce that is equipped once the

¹³² Alex Brown, Interview with Mounir Rached, (Beirut, February 25, 2016).

¹³³ "Offshore Petroleum Resources Law", *Lebanese Petroleum Authority*, January 13, 2011, accessed April 03, 2016, <http://www.lpa.gov.lb/pdf/OPRL%20-%20English.pdf>; Lara Nabil Boughanem, "The Curse of Natural Resources," 57,

extraction process begins.¹³⁴ Lebanon already boasts a high number of highly educated citizens in engineering and energy sectors, and additional education efforts would train a population of skilled workers. Therefore, the education sector in Lebanon must be addressed even before earning hydrocarbon wealth, as a pre-necessity for production. Of course, once production does begin, revenue will provide the opportunity for continued investment in education across the country.

Reforming Lebanon's energy and electricity sector is critical to the growth and health of the country, and a sustainable economy cannot be developed without reliable energy access. One-quarter of the global population still has no access to electricity.¹³⁵ Despite its official status as a middle-income developing country, Lebanon has some of the worst access to electricity in the region, as examined in-depth earlier in this thesis. Thus, part of Lebanon's hydrocarbon wealth development must include reforms in the energy and electricity sectors. If Lebanon does extract significant gas resources, not only will it present an opportunity for revenue generation, but it will also allow Lebanon to alleviate its own energy needs. The country currently imports almost all of its energy in the form of crude oil, at amounts that accounted for nearly \$6 billion in 2012.¹³⁶ Recent drops in the price of oil have eased Lebanon's financial energy burden, but it still remains dangerously reliant on foreign energy sources. However, if Lebanon begins producing hydrocarbons it could satisfy some of its own energy demand using gas. Many of Lebanon's power plants were originally designed to run on natural gas, instead

¹³⁴ Marwan Abdullah, "Lebanon's Hydrocarbon Potential" (Presentation, OPES Conference on Lebanese Oil and Gas, November 21, 2015).

¹³⁵ Amy Myers, et al., "The Impending Oil Shock: An Exchange", *Survival*, 50 (2008): 63.

¹³⁶ "Oil and Gas Sector: A New Economic Pillar for Lebanon", *Credit Libanais Economic Research Unit*, January 2015, accessed April 17, 2016, <https://www.creditlibanais.com.lb/Content/Uploads/LastEconomicAndCapitalResearch/150131113245106.pdf>.

they have been using inefficient crude oil in part because of its cheaper price.¹³⁷

Switching to domestically produced gas could potentially save Lebanon billions, and would also improve energy production through the utilization of a cleaner and more efficient fuel source.

Many experts advocate for Lebanon to direct hydrocarbon wealth towards improving its basic infrastructure, and while this is absolutely important, it is also necessary to recognize that revenue will not be enough to remedy all of the country's ills at once through direct spending. One of Lebanon's biggest economic challenges is the huge, and rapidly increasing public debt, currently at almost 150% of GDP. The debt ratio is expected to continue growing, meaning that by the time hydrocarbons begin to flow, the debt will be even more substantial. If Lebanon decided to use oil revenue to directly pay off all of its debt, there would be only a pittance remaining to address the many other needs of the country. Not to mention, erasing all of the debt at once could lead to many other unintended negative consequences, such as weakening the balance sheets of banks that are the largest holders of public debt, creating a sudden injection of high liquidity, and creating high inflation.¹³⁸ Instead, Lebanon's best course of action would be to transfer a portion of oil and gas revenue to the national budget to develop infrastructure, perhaps pay off some of the national debt, and transfer the remaining revenues to a sovereign wealth fund.¹³⁹ The establishment of a sovereign wealth fund is critical if Lebanon is to realize positive benefits from hydrocarbon development, and its importance will be discussed in greater detail in this chapter.

¹³⁷ Mounir Rached, "Energy (electricity) Supply in Lebanon", (presentation, American University of Beirut, October 20, 2015).

¹³⁸ Mounir Rached, "Sovereign Funds Management", (presentation, OPES Conference on Lebanese Oil and Gas, November 21, 2015).

¹³⁹ Alex Brown, Interview with Mounir Rached, (Beirut, February 25, 2016).

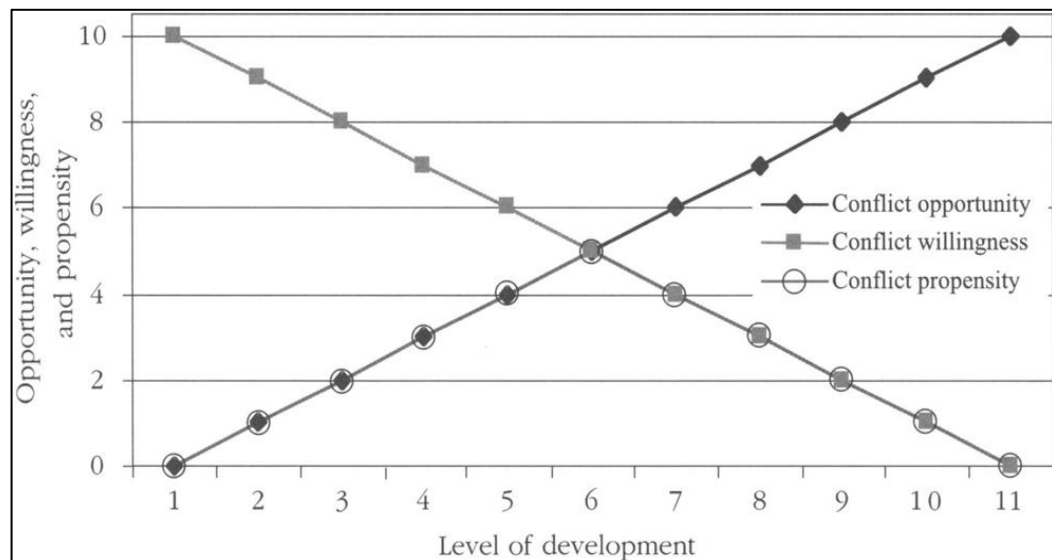
A significant cause of the civil war stemmed from uneven economic growth and a dependence on foreign capital. Foreign dependence led to unequal internal development, and left Lebanon subject to influence from external interests and regional events. Lebanon still remains largely dependent on foreign capital and the whims of external interests, and it is reliant on other state powers to make decisions within the country. Support from nations such as the United States, Saudi Arabia, or Iran, is required for political agreement, and much of Lebanon's economic growth, military capabilities, and other sectors are dependent on external funds. Lebanon's energy sector is almost completely dependent on foreign fuel sources, making the country subject to price fluctuations, demand fluctuations, and other regional disruptions. By exploiting its own internal hydrocarbon resources, Lebanon will have a chance to reduce one aspect of foreign dependence by becoming more energy self-sufficient. Excess oil or gas can be exported and generate significant capital for development projects, and for improving self-sufficiency in other areas of the economy, including perhaps military spending. Oil and gas wealth could also reduce the influence of foreign powers since they will no longer be solely depended on for investment.

In summary, the production of oil and gas can have an important effect on the economic and infrastructure rehabilitation aspect of peacebuilding efforts. Revenues will be sufficient to provide Lebanon with a substantial boost, so long as the resources are allocated effectively. Production plans and regulations that have been developed so far are positive indications that Lebanon will use its revenue responsibly, creating the potential for positive peacebuilding.

2. Economic Development and Reduction of Inter-State Conflict

In the context of state relations, economic development has been proven to reduce inter-state conflict. When states reach a certain level of economic development, the propensity to engage in conflict decreases, especially between states that have economic or trade ties. In fact, no two developed states have fought each other in a war since World War II.¹⁴⁰ Military conflict threatens economic growth and prosperity, as demonstrated by the extreme financial costs of war, and the damage that occurs to economic sectors. Thus, a state with higher levels of economic development will be less willing to engage in conflict that poses a serious risk to its prosperity.

Figure 3 Economic Development and Conflict Propensity



Source: Charles Boehmer and David Sobek, "Violent Adolescence: State Development and the propensity for Militarized Interstate Conflict", *Journal of Peace Research*, 42 (2005).

One of the potential benefits of successful hydrocarbon production is increased state wealth, and the opportunity for meaningful economic development. Since part of

¹⁴⁰ Charles Boehmer and David Sobek, "Violent Adolescence: State Development and the propensity for Militarized Interstate Conflict", *Journal of Peace Research*, 42 (2005): 6.

Lebanon's peacebuilding framework is concerned with mitigating the external conflict with Israel, enhanced economic development should in theory help to reduce that risk. Furthermore, hydrocarbon resources in particular are unique for the Israel-Lebanese case since they represent an opportunity for each state to benefit economically through mutual cooperation over the resource.

D. Reform of Government and Political Institutions

Any peacebuilding efforts in Lebanon must address the country's political system, as it is one of the most flawed aspects of the Lebanese state. The continued ineptitude of government processes not only hinders the development of the state, but it also represents a risk to lasting stability and peace. Although the goal of the confessional system is to provide equal representation to all of Lebanon's religious sects, in actuality it perpetuates divides along sectarian lines, and encourages individuals to only support the political and religious silos in which they are members. Lebanon's system of patronage service provision is directly tied to, and reinforces confessional politics. While hydrocarbon production will not result in a complete overhaul of the confessional system, it can foster important changes, and lead to reform from the bottom up. Focusing peacebuilding efforts around hydrocarbon development could lead to the adoption of better policies and begin to create stronger institutional reform.

This thesis has repeatedly emphasized the far-reaching effects of hydrocarbon development. One of the pre-requisites for beginning and maintaining successful production practices is the creation and establishment of new laws and regulations, which can strengthen the justice and governance systems of Lebanon as a whole. Laws

are required that do not just govern oil and gas specifically. The Lebanese-Israeli maritime dispute has already demonstrated the need for establishing laws to govern coastal regions. The discovery of hydrocarbons forced Lebanon to cement its exclusive economic zone and its territorial waters. Hydrocarbon extraction will involve a large increase in employment, and thus laws must be improved or developed to regulate labor and worker's rights, covering social issues like the health of public workers. The broad potential impact of oil and gas extraction practices necessitates stronger environmental regulation, for example to preserve water supplies and other natural resources.¹⁴¹ Considering the inability of the current political system, it would seem unrealistic to expect those types of regulatory protections to be created by the Lebanese government. However, such laws are already being drafted and developed by some government institutions, and also by NGOs and civil society organizations. The Lebanese Petroleum Administration (LPA), a regulatory body created by the government to manage hydrocarbons, has already produced numerous laws that govern oil and gas issues, and that also consider the range of other areas that were described above. NGOs are working in parallel or in conjunction with the government to create recommendations and good policies.¹⁴² Still, it cannot be ignored that even if solid legal and regulatory frameworks are developed, they must be approved and implemented by the government, which will prove challenging.

One of the most criticized aspects of Lebanon's government is widespread corruption. Lebanon recently ranked 123 out of 168 countries in Transparency

¹⁴¹ Christina Abi Haydar, (presentation, Organization for Petroleum and Energy Sustainability conference, Beirut, November 21, 2015).

¹⁴² Middle East Strategic Perspectives, "Lebanon, What are the governance prospects for the petroleum sector?", May 03, 2013, accessed April 17, 2016, <http://www.mesp.me/2013/05/03/what-are-the-governance-prospects-for-lebanons-petroleum-sector/>.

International's world corruption index.¹⁴³ Transparency and accountability are critical to the success of hydrocarbon production in any country. Historically, Lebanon's government has severely lacked both. However, as the potential of oil and gas development has come closer to reality, there has emerged a strong push for transparent processes to ensure that hydrocarbons are managed responsibly. Lebanon's oil and gas NGOs are all working to combat corruption. An important step is the process of educating the public about oil and gas, and about the potential benefits that Lebanon can receive. The greater the percentage of people in the country who are educated about the issues, the more difficult it will be for the government to engage in corrupt practices that go unnoticed. The Lebanese Transparency Association is an NGO that is focused on combatting corruption at all levels of the country, not just as it relates to hydrocarbon production.¹⁴⁴ In a promising development, the Lebanese parliament's committee on energy introduced a law in 2015 that would mitigate illicit activity in the oil and gas sector.¹⁴⁵ The need for accountability in the hydrocarbon industry is a global concern, and there exist numerous agencies that try to prevent corrupt practices. One particularly promising initiative is the Extractive Industries Transparency Initiative (EITI). EITI is a non-profit created in 2002 under Norwegian law. Its goal is to build transparency and promote accountability for the management of oil and gas. Countries that participate in EITI must apply and pass a vigorous validation process that is overseen by a group of international observer countries. Accepted EITI members are required to publish

¹⁴³ Transparency International, "Corruption by Country/Territory", accessed April 20, 2016, <https://www.transparency.org/country/>.

¹⁴⁴ The Lebanese Transparency Association, "About The Lebanese Transparency Association", accessed April 06, 2016, <http://www.transparency-lebanon.org/En/Home>.

¹⁴⁵ Jeremy Arbid, "Show us the money", *Executive*, October 20, 2015, accessed April 15, 2016, <http://www.executive-magazine.com/special-report/show-us-the-money>.

information on fees, revenues, and any resource related payments that are made.¹⁴⁶ If Lebanon truly wishes to follow a responsible and transparent model of hydrocarbon production, the Lebanese public and NGOs who are already involved in planning for oil and gas should strongly push for Lebanon to apply to the EITI.

One of the most problematic characteristics of Lebanese government and politics is the reliance on clientalism. If a country is locked into power-sharing agreements, as is the case in Lebanon, clientalism often becomes a permanent feature of the state, one in which political patronage is the primary method for receiving goods and services. As discussed in chapter 2, most of the people who are dependent on the clientalist system are those in the low or lower-middle income levels of the population. These individuals rely on the clientalist structures to receive basic services. For them, access to goods and services depends on their commitment to the client structure, and their support of political elites who provide the services. States that emerge from systems of clientalism are often those that have experienced the most economic development. Economic development can erode systems of patronage by increasing the population of middle to upper-middle income individuals.¹⁴⁷ Wealth is one of the most necessary factors that allows individuals to not participate in the clientalist system, as there is no longer the same reliance on receiving basic goods and services. Simply put, if you can afford to purchase services on your own, you will be less likely to support a specific political patron since the role of dependency is significantly reduced. This is one way in which Lebanon could experience significant political reform through hydrocarbon exploitation. Lebanon faces meaningful wealth potential from oil and gas

¹⁴⁶ Extractive Industries Transparency Initiative, “What is the EITI?”, accessed April 19, 2016, <http://www.executive-magazine.com/special-report/show-us-the-money>.

¹⁴⁷ Melani Cammett, “Public Goods, Sectarianism and the Political Crisis in Lebanon”, (presentation, American University of Beirut, December 07, 2015).

production. If resources are used correctly, there is a chance for economic growth and reform that would benefit the entire country. An increase in individual wealth could especially erode clientalism by reducing the number of people who depend on those networks. However, the political system is already firmly in place, so how does economic development reach the population? A likely scenario is that revenues would filter through the existing political structure, benefiting the elite, and preventing distribution of wealth.¹⁴⁸ One of the potential ways to combat such a scenario is through the work of civil society organizations to continue pushing for transparency, good governance, and responsible production practices. If only some revenue can be distributed to the population, it could result in the fraying of clientalist networks, which would be an important first step even if it is on a small scale.¹⁴⁹ It is also possible that oil and gas revenues could degrade Lebanon's clientalism structures without significant wealth reaching an individual level. The lack of public service provision is one of the primary reasons for the emergence of political patronage, and also a crucial factor that allows it to continue flourishing. Hydrocarbon development will provide increased wealth for the state, and likewise the opportunity will exist for the Lebanese government to invest in improving public services. This would help reduce citizen's reliance on political patrons for goods and services. Still, the implementation of such practices and investment in the public good is dependent on the government to make responsible choices. Once again, the influence of non-state actors will be a crucial component to ensure that wealth is handled expediently. However, it is difficult at this stage to predict that government practice will be responsible, even with added external pressure.

¹⁴⁸ Alex Brown, Interview with Melani Cammett (Beirut, March 24, 2016).

¹⁴⁹ Ibid.

E. Mitigating External Conflict Through Resource Management: Opportunities for Hydrocarbon Peacebuilding or Cooperation with Israel

Chapter 1 of this thesis discussed the history of conflict between Lebanon and Israel, and outlined the most recent source of tension; the maritime border dispute and contested hydrocarbon resources. Although the border dispute is yet another source of potential conflict between Lebanon and Israel, it could actually provide an opportunity for the two states to improve their relations through basic cooperation over the management of hydrocarbon resources, and simultaneously through the settlement of the territorial dispute.

When a valuable natural resource such as oil or gas exists between two coastal states, or within a disputed territory, there is often an incentive to engage in cooperative activities that can manage both the territorial dispute, and the resource extraction issue. In this case, a joint development zone could be created that manages competing sovereignty claims, boundary issues, and resource control claims. If a boundary already exists, the joint development would prevent either state from infringing on the other's rights by regulating the resource use between each party. If no boundary exists, a joint development zone would lead to the creation of a boundary to separate the use of the contested resource.¹⁵⁰ Thus, the resource itself would facilitate the demarcation of a borderline. The most common forms of cooperative resource extraction practices between states are Joint Development Agreements (JDAs), or Trans-Boundary Unitization Agreements (TUAs). Such agreements could allow for joint ownership of an overlapping resource claim, or they could be used to regulate the shared unitization of

¹⁵⁰ Kyriaki Noussia, "On International Arbitrations for the Settlement of Boundary Maritime Delimitation Disputes and Disputes from Joint Development Agreements for the Exploitation of Offshore Natural Resources," *The International Journal of Marine and Coastal Law* 25, 2010: 68.

hydrocarbons that are within the boundaries of neighboring states.¹⁵¹ Joint development agreements have been proven as an effective option for states faced with a potential maritime dispute, particularly when offshore resources or hydrocarbons are involved. One example of this is the US-Mexico Transboundary Hydrocarbons Agreement, which regulates the exploitation of oil and gas located in reservoirs that straddle the international maritime boundary between the two countries in the Gulf of Mexico.¹⁵² As a result of the agreement, the US and Mexico are equitably managing their offshore hydrocarbons by the use of a TUA, allowing companies to carry out development projects with the shared resources, and in cooperation with each state. Relations between Israel and Lebanon are obviously much different than between the US and Mexico, nonetheless it is a useful example to demonstrate the effectiveness of joint hydrocarbon agreements.

At first glance, joint development seems attractive as a potential solution to the dispute between Israel and Lebanon. The two neighboring countries have a shared maritime border that is yet to be defined, and each possesses at least some quantity of oil and gas that is likely to straddle both sovereign territories. The establishment of a joint development agreement could have a dual effect of settling the territorial dispute, and also managing the natural resources in question. Furthermore, it could allow energy companies to engage in oil and gas extraction projects in cooperation with both countries. Some international companies are at present, wary of undertaking drilling projects in either territory for fear of potential conflict, a fear that could be mitigated by establishing joint development. In addition, a joint agreement could increase the

¹⁵¹ David M. Ong, "Joint Exploitation Areas," In *Max Planck Encyclopedia of Public International Law*, April 2011, <http://opil.ouplaw.com.ezproxy.aub.edu.lb/view/10.1093/law:epil/9780199231690/law-9780199231690-e648?rskey=YZ00Ro&result=1&prd=EPIL>, 3.

¹⁵² United States Department of State, "U.S.-Mexico Transboundary Hydrocarbons Agreement Fact Sheet," May 2, 2013, <http://www.state.gov/r/pa/prs/ps/2013/05/208650.htm>.

likelihood for regional energy development and exportation projects to be realized. Various plans had been discussed about how to develop Mediterranean gas, including the possibility of Cyprus constructing a \$12 billion liquefied natural gas terminal to process gas from Israel and Lebanon, before exporting it across the Mediterranean.¹⁵³ Although such large-scale plans sound appealing, Lebanon's failure to achieve progress on its own production has forced potential regional partners to look for new plans. The political realities between Lebanon and Israel remain the most glaring impediment, as the two states will not currently engage in discussions to solve their territorial dispute. Thus, reaching a more ambitious agreement to also manage hydrocarbon development would be difficult.

When assessing the possibilities of joint hydrocarbon production leading to peacebuilding between Lebanon and Israel, the odds are even more unlikely. Peacebuilding efforts between two states require enhanced joint cooperation on many levels, and most importantly, they require the will for two states to at least seek preliminary measures of peace. Lebanon and Israel have a deeply rooted history of conflict, and their relationship today appears no less strained. One of the most obvious roadblocks to peace between the two is the influential presence of Hezbollah, and its unwavering opposition towards Israel. The resistance movement still forms its identity around maintaining opposition and conflict to Israel. One of their goals, as emphasized by a senior Hezbollah Member of Parliament is also to reinforce that anti-Israel position across Lebanon: "Resistance against Israel should be established as a condition for national sovereignty and accepted as a fundamental Lebanese characteristic that will

¹⁵³ Anna Shiryayevskaya, "Cyprus Studies LNG Export Expansion Beyond \$12 Billion Terminal", *Bloomberg*, July 12, 2013, accessed December 10, 2015, <http://www.bloomberg.com/news/articles/2013-07-12/cyprus-studies-lng-export-expansion-beyond-12-billion-terminal>.

endure as long as the threat from Israel remains.”¹⁵⁴ The Lebanese government itself refuses to recognize the Israeli state, and there is little evidence to suggest that they would reverse that position.

Even peacebuilding focused only on natural resource development should not be considered a realistic goal, as the two states are unable to engage in political discussions over their disputed maritime territory. It is actually the absence of diplomatic communications and political recognition that could be most to blame for the recent maritime territory dispute in the Mediterranean. Under normal circumstances, two states would be in communication when deciding on their respective maritime border coordinates, as was done in the bilateral agreements that were made between Lebanon and Cyprus, and between Israel and Cyprus. However, no bilateral treaty was established between Lebanon and Israel, nor is one likely to be established as the two remain in a state of war, and as Lebanon refuses to officially recognize Israel.

Full-fledged peacebuilding between Lebanon and Israel can likely be ruled out, but as discussed above, joint development arrangements do have the potential to solve territorial disputes, as well as to create an equitable use of shared resources. Lebanon and Israel will not reach such an agreement on their own, but there does exist external and regional interest in settling the maritime dispute, and promoting joint exploration of natural gas reserves. The involvement of the United States in the Israeli-Lebanese dispute makes the prospects of an arrangement slightly more promising. American experts have been working to determine a proper territorial boundary between Lebanon

¹⁵⁴ Elizabeth Picard and Alexander Ramsbotham, “Reconciliation, reform and resilience: Positive peace for Lebanon, Interview with Ali Fayyad”, *Accord: Conciliation Resources*, 24 (2012).

and Israel, and have already proposed potential solutions to both sides.¹⁵⁵ American attempts to determine a compromise appear to provide the opportunity for an equitable solution, and could make shared resource extraction a more likely possibility. If a shared production agreement between Lebanon and Israel is somehow reached, it could pave the way for improved state relations, or reduce the risk of future conflict. Unfortunately, as things currently stand today cooperation seems unlikely.

¹⁵⁵ Barak Ravid, "U.S. Drafts Compromise for Lebanon-Israel Dispute over Natural Gas Resources," *Haaretz*, December 16, 2012, <http://www.haaretz.com/israel-news/u-s-drafts-compromise-for-lebanon-israel-dispute-over-natural-gas-resources.premium-1.485160>.

CHAPTER V:

ADDRESSING THE RISKS OF HYDROCARBONS

Chapter 4 analyzed the potential impact of oil and gas production on each of the main aspects of the peacebuilding process. The chapter highlighted many of the potentially positive impacts that hydrocarbon development could have on different areas of the Lebanese state that are in need of reform. However, hydrocarbon production is not guaranteed to be a successful or positive endeavor. Natural resource wealth, and especially oil and gas development, also carries serious hazards. In chapter 5, the most common pitfalls of oil and gas production will be identified, providing examples of countries that have succumbed to the risks, as well as counter examples of countries overcoming those risks. Finally, recommendations will be given for how Lebanon can benefit from its potential resource wealth, and not succumb to the dangers of oil and gas development. If Lebanon is to benefit from hydrocarbons, and begin to construct peacebuilding practices, it is essential that oil and gas be managed effectively.

A. The Resource Curse and Dutch Disease

While highlighting the numerous potential benefits of oil and gas production, it would be impossible to ignore the inherent risks. For decades, it was widely believed that countries in possession of substantial natural resources possessed a huge advantage, capable of transforming them from underdeveloped or developing, and into successful and strong economic states. However, additional research eventually revealed that the opposite was often true; an abundance of resources was actually a curse for developing

countries, increasing the likelihood of high poverty levels, poor economic growth, bad governance, and even a greater risk of civil war.¹⁵⁶ Research has led to the development of two main theories regarding the negative risks of natural resources, especially oil or gas: The resource curse, and the Dutch disease.

The resource curse demonstrates that resource-rich countries actually grow more slowly than those that do not possess significant resources. The core causes of the resource curse tend to be political or institutional, especially when states engage in practices of rent seeking or corruption. The massive influx of wealth associated with hydrocarbon production is often coupled with the political elite spending irresponsibly on projects that do not support diversified economic policies, such as embezzling profits, or using oil wealth for subsidies on domestic goods rather than investing in other industrial sectors. In such cases, the economy becomes too dependent on resources and the price of commodities, leading to economic collapse when the resources are inevitably depleted. These conditions can be witnessed today, with many major oil producing countries around the world facing potential economic crises because of the extreme drop in oil prices, and a failure to diversify their economies.

Similar to the resource curse is the Dutch disease, referring to economic damage caused by rapid contraction of the non-resource traded goods sector.¹⁵⁷ The name derives from the discovery of gas in the Netherlands in the mid-1900's. A rapid increase in wealth from gas production caused the value of the local currency to rise, which resulted in the value of other exports decreasing. When a country is stricken with the Dutch disease, non-resource sectors of the economy tend to become less competitive in

¹⁵⁶ Andrew Rosser, "Escaping the Resource Curse", *New Political Economy*, 11 (2006): 557.

¹⁵⁷ Erling Røed Larsen, "Escaping the Resource Curse and the Dutch Disease? When and Why Norway Caught Up with and Forged Ahead of Its Neighbors", *The American Journal of Economics and Sociology*: 65 (2006): 608.

the global market, and decline. Both the resource curse and the Dutch disease are more likely to occur in countries that already lack strong political and institutional frameworks and policies. The possession of a wealth of resources will often strengthen groups who have an interest in maintaining the status quo or preserving policies that are negative for the country, but that continue to benefit the political elite. Without strong government institutions, individuals are more likely to be able to push for policies that benefit themselves at the expense of the public good, sometimes by enticing political elites through bribes or other corrupt practices.¹⁵⁸ This is certainly already the case in Lebanon, and a key explanatory factor for why it has been nearly impossible for the Lebanese government to enact meaningful policies. Each actor is always seeking to satisfy his own interests and the interests of his cronies, often at the expense of the country.

B. Hydrocarbon Development Cases of Success and Failure

In trying to predict how oil and gas resources might affect Lebanon, it is useful to examine the impact that hydrocarbon production has had on countries with similar conditions. Although Libya and Nigeria do have many differences when compared to Lebanon, both states exemplify how poor governance, weak institutions, and rampant corruption led to the resource curse. In Libya, oil revenues were embezzled by the government and political elite, most notably by then leader Muammar Gaddafi. Instead of being spent on economic or infrastructure development, revenues were diverted to militarization, subsidies, and public sector wages aimed at maintaining political legitimacy and support. A similar situation transpired in Nigeria, a state in which 60%

¹⁵⁸ Andrew Rosser, "Escaping the Resource Curse," 562.

of the population lives below the poverty line, and where 80% of the billions of dollars in oil revenues are amassed by 1% of the population.¹⁵⁹ In both Libya and Nigeria, the exploitation of hydrocarbons did not lead to economic growth or positive changes for the country and its citizens. Instead, oil wealth filtered through the corrupt and faulty government structures that already existed, strengthened the elites at the expense of the population, and further entrenched corrupt and ineffective government systems.

Although many cases of oil and gas wealth have resulted in the resource curse or Dutch disease, Norway is one notable exception. When asked about a positive case study or experience with hydrocarbons that Lebanon could draw from, every expert consulted for this thesis suggested Norway as the best example. Norway is a popular case study to demonstrate how successful policies and good governance can mitigate risk, and create profound benefits from oil or gas. Norway's success is not an accident, but rather the result of specific policies that were enacted based on the prior knowledge that oil development carries serious potential of negative impacts. From an economic and fiscal policy perspective, Norway exercised restraint by controlling spending, limiting public wage increases, and gradually paying back foreign debts.¹⁶⁰ Rather than spending wildly on large-scale projects as other major oil producers have done, they focused resources into education and development, including educating oil experts and investing in oil research to allow the use of domestic expertise and labor, instead of relying on foreign specialists. Norway invested in maintaining other industrial activities in addition to oil, to keep exports varied, and to prevent complete dependence on oil revenues.¹⁶¹ Perhaps the most important action was for Norway to channel most of its oil revenues into a petroleum fund, what has become the most successful and most

¹⁵⁹ Lara Nabil Boughanem, "The Curse of Natural Resources," 17.

¹⁶⁰ Erling Røed Larsen, "Escaping the Resource Curse," 619.

¹⁶¹ Ibid.

valuable sovereign wealth fund in the world, with a value of \$877 billion as of 2016.¹⁶² To avoid symptoms of corruption and a rentier state, Norway maintained a strong legal system that reduced illegal rent seeking, and relied on strong political institutions that helped keep politicians and elites in check.¹⁶³ It would be difficult to use Norway as a predictor of how Lebanon might be impacted by oil and gas, since the inherent nature of the two states and their political systems is wildly different. Prior to discovering oil, Norway already benefited from relatively strong political institutions, and the country could be considered lucky in that it possessed responsible policy makers and politicians who restrained themselves from abusing the resource wealth. Lebanon does not have such luck, and instead possesses far weaker and more precarious political and governance structures. While Lebanon should indeed strive to copy the Norwegian model of hydrocarbon production, it will face considerably more challenges by having to build and strengthen its currently weak state capacity and irresponsible political decisions. However, it is still important to try and mimic the practices of successful states, and Norway is an excellent example. Many organizations like the LPA and NGOs are already developing policies and strategies based on Norway's activities.

C. How can Lebanon Avoid the Curse of Oil and Gas?

Lebanon's high rate of corruption, ineffective policies, and weak governance seem to indicate a high likelihood of falling victim to the resource curse, or other ills associated with oil and gas development. However, there are some indications that such failures could be avoided. One expert who was consulted for this project, contended that

¹⁶² Kjetil Malkens Hovland, "Rare Glimpse Into Norwegian Fund Shows Shift From Large Stakes", *The Wall Street Journal*, March 08, 2016, accessed April 18, 2016, <http://www.wsj.com/articles/norway-oil-fund-returns-2-7-on-investments-in-2015-1457515477>.

¹⁶³ Erling Røed Larsen, "Escaping the Resource Curse," 619.

other regional examples of state failure could not be applied to Lebanon, since Lebanon is a unique case with unique state conditions. Furthermore, he argued that even if some revenues are captured by corrupt political elites, the vast majority of wealth will filter through to the rest of the country, essentially arguing that it would be impossible for a few elites to capture the majority of Lebanon's hydrocarbon wealth. Perhaps a more compelling argument against Lebanon falling victim to the resource curse, is the encouraging progress that has been made towards developing effective governing policies.

Despite its mostly ineffective and underdeveloped system of governance, Lebanon has begun to establish a strong framework for hydrocarbon policy. One of the most critical institutional advancements was the establishment of the Lebanese Petroleum Administration (LPA). Established in 2012, the LPA is tasked with managing the petroleum industry in Lebanon. It is the principle regulatory body in charge of drafting policies and recommendations for how hydrocarbon resources should be managed. The LPA has six different offices, in charge of planning and development, technical and engineering, geology and geophysics, legal affairs, economic and finance, and health, safety and the environment.¹⁶⁴ The LPA reports to the Ministry of Finance, and it works closely with the Lebanese government to advise and guide procedures for oil and gas development. The process of forming the LPA was difficult on its own, reflective of Lebanon's political inefficiencies. As is the case with almost all political decisions, agreement could not be reached on who the LPA members and experts would be, as each political party wanted to ensure that their interests would be fairly represented. After much debate, the LPA was finally established with each department

¹⁶⁴ Lebanese Petroleum Authority, "About", accessed March 10, 2016, <http://www.lpa.gov.lb/about.php>.

head representing of a different religious sect, thus the LPA mimics the sectarian structure of the Lebanese government.¹⁶⁵ However, unlike the central government, the LPA has so far been successful in cooperating to draft strong legal and regulatory policies for hydrocarbon production. It was the LPA that was responsible for creating the laws to ensure that hydrocarbon development must include the participation of mostly Lebanese employees, instead of relying on outsourced labor and contractors. The LPA drafted the Lebanese Offshore Petroleum Resources Law (OPRL), proposing a sovereign wealth fund where net proceeds from hydrocarbon production will be channeled.¹⁶⁶ Taking cues from the Norwegian model, the structure of the sovereign wealth fund is designed to cushion the Lebanese economy from potentially destabilizing effects of sudden oil and gas wealth, in an effort to mitigate the so called Dutch disease. Furthermore, the wealth fund would provide a transparent and secure holding place for hydrocarbon wealth, ensuring that revenues are saved to be used responsibly for investment and development projects, and for future generations. In further keeping with the successful Norwegian model, the LPA adopted a “competitive bidding” approach for awarding contracts to prospective companies, a transparent method that focuses on awarding bids to the most qualified companies who are best suited to Lebanon’s needs.¹⁶⁷ Even though the LPA is built to model the same problematic confessional system of the Lebanese government, it has not fallen victim to the same ineffectiveness. Instead, the LPA members have so far worked together as a productive regulatory body, developing policies and regulations to ensure successful hydrocarbon

¹⁶⁵ Sarah Bou Atmeh, “Lebanon’s oil and gas prospects: Petroleum Management Lebanon Ministry of Finance,” (presentation, American University of Beirut, October 29 2015).

¹⁶⁶ Lebanese Petroleum Authority, “Offshore Petroleum Resources Law”, January 13, 2011, accessed April 03, 2016, <http://www.lpa.gov.lb/pdf/OPRL%20-%20English.pdf>

¹⁶⁷ Lara Nabil Boughanem, “The Curse of Natural Resources,” 53.

<https://ulib.aub.edu.lb/thesis/pj-1792.pdf>

development.¹⁶⁸ Still, it must be noted that any policies developed by the LPA, no matter how responsible or effective, must still be approved and implemented by the government, which has already proven to be a major impediment to reform.

One of the most important factors that could influence successful hydrocarbon exploitation is the role of NGOs and civil society. Lebanon already possesses a population with many individuals who are highly educated in sectors of oil and gas, engineering, economics, and other subjects related to hydrocarbon development. Likewise, there has been passionate interest from many Lebanese citizens to educate the government and the public about the oil and gas potential, and to pressure political leaders for transparency and responsible policy. Numerous civil society organizations have emerged that are working to ensure Lebanon does not squander its oil and gas opportunity. The Lebanese Oil and Gas Initiative (LOGI), is an NGO that focuses on public awareness, developing policy, capacity building, and technical assistance to help Lebanon avoid the resource curse. LOGI is working to develop a network of Lebanese experts in the energy industry to educate Lebanese policy makers and citizens about the most important issues in the development of oil and gas.¹⁶⁹ The Organization for Petroleum and Energy Sustainability is another similar NGO, led in part by former AUB graduates, and focused on promoting good governance and transparency in Lebanon's oil and gas sector.¹⁷⁰ OPES gathers experts and activists to create public awareness, exchange research, and help draft laws to aid policy makers. Creating public awareness and education about the hydrocarbon potential is critical to ensuring government accountability. The more people who are aware and invested in the process,

¹⁶⁸ Christina Abi Haydar, "Lebanese Legal Framework," (presentation, Organization for Petroleum and Energy Sustainability Conference, Beirut, November 21, 2015).

¹⁶⁹ The Lebanese Oil and Gas Initiative, "About LOGI", http://logi-lebanon.org/us_main_page_section/about/.

¹⁷⁰ Organization for Petroleum and Energy Sustainability, "About Us", <http://www.opeslb.org/>.

the less likely it will be for corruption and negative policy to be enacted without notice. Civil society can push the agenda of strong policy, and demand accountability and transparency.¹⁷¹

Lebanon has not made any progress towards beginning oil and gas development since completing the first licensing round in 2013. The main cause is the parliament's failure to pass two final decrees that would allow pre-qualified companies to enter into production agreements, and begin development procedures. The government's failure to move forward in the production and discovery process has been a repeated criticism. However, the government's sluggishness could actually be a blessing in disguise. By delaying the start of production, it has allowed time for the legal and institutional framework to be improved, and for new laws and regulations to be drafted. This has been accomplished by both the LPA governing body, as well as by the efforts of NGOs. There are certainly downsides to procrastination, such as the possibility that international companies will lose interest, or that other eastern Mediterranean countries will beat Lebanon to market.¹⁷² However, in Lebanon's case, rushing to begin extraction could cause more harm than good, by not allowing time for the possibility of corruption and poor governance to be improved. Instead, the delay is actually providing Lebanon with the opportunity to become better prepared.¹⁷³ In addition, the delay could allow hydrocarbon prices to stabilize and increase to more favorable levels before Lebanon begins extraction. The value of hydrocarbons, especially crude oil, has plummeted between 2015 and 2016, but many analysts are predicting that the depression of prices is

¹⁷¹ Middle East Strategic Perspectives, "Lebanon, What are the governance prospects for the petroleum sector?", May 03, 2013, accessed April 17, 2016, <http://www.mesp.me/2013/05/03/what-are-the-governance-prospects-for-lebanons-petroleum-sector/>.

¹⁷² Alex Brown, Interview with Mounir Rached, (Beirut, February 25, 2016).

¹⁷³ Laury Haytayan, "Revenue Management: The Best Model for Lebanon", (presentation, Organization for Petroleum and Energy Sustainability conference, Beirut, November 21, 2015).

not permanent, and that both natural gas and oil prices will substantially increase in the future.¹⁷⁴ Both oil and gas prices can be highly volatile and difficult to predict, however if Lebanon had progressed more quickly and begun production in 2015 or 2016, it would be operating in an unfavorable price environment, one that is highly-likely to improve in the coming years.

¹⁷⁴ Terry Tamminen, “Predictions: \$70 oil, the winner of 2016 & more”, *CNBC*, January 07, 2016, accessed April 24, 2016, <http://www.cnbc.com/2016/01/07/predictions-70-oil-the-winner-of-2016-more-commentary.html>; Gordon Kristopher, “What’s the Long-Term Forecast for Natural Gas Prices?” *Yahoo Finance*, February 24, 2016, accessed April 24, 2016, <http://finance.yahoo.com/news/long-term-forecast-natural-gas-141051594.html>.

CHAPTER VI:

A SUMMARY OF FINDINGS AND PROSPECTS MOVING FORWARD

The impacts of conflict on Lebanon have been damaging. The country continues to possess characteristics of a post-conflict state, and those issues themselves create the potential for further conflict and instability. Lebanon finds itself at a critical juncture, and with the discovery of hydrocarbons, it has been presented with an opportunity to break the cycle of conflict, and to establish meaningful peacebuilding processes.

Oil and gas development has the potential to improve many sectors of the Lebanese state, including those issues that are vital to peacebuilding efforts. If estimates and preliminary exploration results are proven correct, Lebanon possesses enough gas reserves to generate substantial revenues, and to contribute to regional gas demand. Of course, realizing economic gain, and rehabilitating faltering infrastructure will depend on the implementation of proper policies, and responsible use of wealth. Most of the benefits from hydrocarbon resources tend to be material in nature. However, this study has also demonstrated the immaterial benefits that Lebanon's oil and gas production could have, such as fostering wide-spread cooperation across the country. One of the most difficult areas of the country to reform is the government and political system, especially political patronage structures. These areas will be most likely to hinder Lebanon's positive development from hydrocarbon resources, and they will pose the greatest risks to successful production. However, increased wealth is one of the ways in which patronage systems can be degraded. If oil and gas development is successful it will result in economic benefits for all citizens that could fray sectarian political

support. Nationwide awareness of hydrocarbon potential, and pressure from civil society for transparency and responsible policy, will all increase the likelihood of governance reform.

Focusing on hydrocarbon development as a starting point for peacebuilding efforts could be considered hazardous, especially in light of the inherent risks of oil and gas wealth. If history is any indication, Lebanon's oil and gas production will most likely reinforce, or even strengthen, corruption, incompetence, and possibly strife. Recent progress made by the LPA towards developing sound and responsible policies, and the commitment of civil society organizations, give reason for optimism. Furthermore, the delays that have come as a result of Lebanon's ineffective government could actually allow Lebanon enough time to prepare responsible strategies and institutions needed to successfully manage hydrocarbon resources. In particular, Lebanon should continue modeling its practices after the Norwegian example, which will help ensure success. While Norway is an ideal model of successful hydrocarbon development, it can be difficult to compare to Lebanon from a governance and institutional perspective. Other examples might also be considered such as Botswana's successful growth from its oil reserves, or perhaps even the cautiously encouraging case of Uganda that has entered into a bilateral project with Norway to help improve its petroleum regulatory framework before production begins.¹⁷⁵

In assessing how oil and gas could contribute to peacebuilding between Lebanon and Israel, the outlook is less encouraging. The lack of communication between the two states makes any collaboration difficult. Furthermore, other factors especially the

¹⁷⁵ Havard Bergo, "Can Uganda escape the natural resource curse?", *Global Risk Insights*, May 09, 2015, accessed April 23, 2016, <http://globalriskinsights.com/2015/05/can-uganda-escape-the-natural-resource-curse/>; Michael Lewin, "Botswana's Success: Good Governance, Good Policies, and Good Luck", *Yes Africa Can, Success Stories from a Dynamic Continent*, 2011: 81-90.

presence of Hezbollah, will likely prevent cooperation or peacebuilding. While open conflict over the disputed territory is unlikely, it still represents a source of tension between two countries that already have extremely strained relations. However, Lebanon still needs to make considerable progress before it begins production. Two decrees remain to be passed by parliament before the next stage of licensing can occur, and production will not be able to commence for several more years after the decrees are passed. Thus, Lebanon's potential inability to operate in the disputed territory and any dispute over recovering what resources are located in the maritime zone, should not be a major concern for the near future.

In addition to the research conducted in this thesis, future studies might be more narrow in scope, and give specific focus to certain aspects of the hydrocarbon potential. In particular, the potential impact of civil society and NGOs might be examined in greater detail, and the role that such groups have had in other countries on developing policy, and influencing government decisions about hydrocarbon production. Research could include a study or polling of perceptions and attitudes of the Lebanese public towards oil and gas production. The effectiveness of the Extractive Industries Transparency Initiative should also be examined in greater detail, and seriously considered as a method to help ensure transparency and accountability in Lebanon. Civil society organizations and the LPA should campaign for Lebanon to explore membership with the EITI. Other research might consider the environmental side-effects of oil and gas production, perhaps assessing if oil and gas development would be in Lebanon's best interest from a renewable energy and environmental perspective.

One of the reasons that natural resources figure so prominently into peacebuilding practices is that they are vitally important to the state, and they often have

impacts that stretch across many or all of the important areas of peacebuilding. In this way, hydrocarbon resources are particularly impactful. As this thesis has demonstrated, hydrocarbon development includes issues such as wealth, economy, law, government, and infrastructure, among others. Lebanon must address many if not all of those issues, and it is for this reason that hydrocarbon production is so promising as a potential impetus for peacebuilding. Many countries do not possess significant resource wealth, particularly not oil or gas. Lebanon once considered itself among those resource poor countries, until the discovery of hydrocarbons was made. Now, Lebanon has the opportunity to use its newfound resources for positive change and development.

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