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THE PROSPECTS OF DIVERSIFYING KUWAIT FROM A SINGLE ECONOMY

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ABSTRACT

In this paper, I examine the prospects of diversification in an oil-based economy. In Kuwait, the economy has proven to be highly volatile due to its dependence on oil. High revenue surplus in Kuwait's recent history can offset the possibility of a potentially high income insecurity through diversification. The possibilities of diversification to a reliable and sustainable economy are examined in this paper as well as the benefits and risks involved. Kuwait's Sovereign Wealth Fund is studied as a possible avenue of diversification.

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Chapter 1

Introduction and Overview

The production of oil and products that are derived from oil are vital to sustain the current levels of economic growth in many nations, especially those of the oil-rich Middle East. Despite heavy reliance on oil for economic progress, the 2008 Global Financial Crisis and the collapse of oil prices in 2014 showed that oil producing nations are highly vulnerable, as the prices of oil dropped from \$147 per barrel in July 2008 to \$33 in February 2009 and more than \$100 in early 2014 to less than \$30 in early 2016. Fluctuations in oil prices have alerted economies that are producing oil to the possibility of experiencing limited production of oil due to price shocks and advancements in oil alternatives. The world's oil producers are also susceptible to inconsistent estimates of the petroleum industry's longevity. The large differences in such estimates spell uncertainty in the future production of oil (Hgtfallock, Wu, Hall, and Jefferson, 2014). For both of these reasons, it is crucial that countries whose economies are primarily driven by trade in oil resources adopt reliable and sustainable strategies to diversify their economies.

Diversification is essentially a deliberate effort to exploit and develop multiple economic sectors in order to maximize economic growth given that one sector may fail. Indeed, many developed nations have gone through the process of diversification to reach where they are today. Singapore for instance, was able to diversify its economy by building various reliable sectors such as tourism by taking advantage of climate and location, manufacturing by turning the country into a major electronics exporter, and in general, developing the economy yet decreasing their reliance on the Port of Singapore. According to the CIA, Singapore, today is considered one of the 33 developed countries in the world. Unfortunately, however, some

countries get distracted from the goal of diversifying their economies once certain resources or valuable materials are discovered within their borders. Once this happens, non-diversification sets in through excessive focus on the discovered resource while neglecting other areas that may be equally resourceful, leading to a potentially unstable path of consumption. In addition, practices which drive such economies further towards non-diversification set in. Such tendencies include loss of commitment to reinvest the excess cash on hand from the booming single sector in reliable investments with sustainable returns, wasteful spending, and even corruption (Bature, 2013). All of these factors apply in particular to Kuwait.

Kuwait is among the countries within the Gulf region that has been endowed with this highly valued resource. As mentioned earlier, Kuwait's oil sector has been a key determinant of success. Most of the Kuwaiti oil is sourced from Burgan oil field, which is one of the largest oil fields in the world. It was discovered in February, 1938 by the Kuwait Oil Company (KOC). The KOC was founded in 1934 by the United Kingdom and the United States when Kuwait was still under British colonization. The KOC continued extracting oil under foreign ownership until 1975 when Kuwait took 100% ownership. Today, Kuwaiti oil reserves make up 8% of the total oil reserves in the world. Kuwait also relies heavily on the oil sector since it is vital for the economy's survival as shown below with the dominance of oil exports.

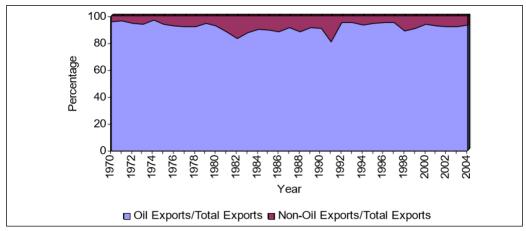


Figure 1: Ratio of Oil and Non-Oil Exports to Total Exports, 1970-2004

Source: IMF (2006)

While the country has registered massive growth since the discovery of oil fields within its borders in 1938, the oil sector has experienced many challenges that have threatened its reliability and survival as the key source of government revenue. There are, however, other avenues to invest in as a way of expanding its growth and decreasing the volatility of the primary income source. Kuwait can draw important lessons from other oil-rich countries that have experienced unpleasant consequences of non-diversification. Nigeria is a case in point. According to Bature (2013), former president Olusegun Obasanjo said, "While Indonesia had oil in part to finance its investment in agricultural development and to use it as jump of leverage, Malaysia was not blessed with the same gift of nature. Yet the story has been told so often of how Malaysia came in the sixties to collect palm oil seedlings from Nigeria. The irony of it is that while Malaysia is currently an exporter of palm oil, Nigeria is now an importer of palm oil and importing from Malaysia" (Bature, 2013). The reply of the former army general and president is a confession of the dangers that are inherent in the lack of initiative to diversify an economy. The irony in this example is thought-provoking since it raises other fundamental issues and business concepts such as first-mover advantage which leads the first entrant in a market segment to have great control over resources and market share. Kuwait has been fortunate to have this advantage and opportunity with its Sovereign Wealth Fund (SWF), which is a state-owned investment fund that invests in real and financial assets worldwide. The benefit of such an opportunity is very significant to Kuwait's sustainable growth and diversification, which will be discussed later in Chapter 3.

If Kuwait wants to grow beyond its current economic power and increase its presence in the global market, it must seek and harness opportunities to diversify its resource-driven economy. A regional outlook on the Middle Eastern economies by the International Monetary Fund (IMF) puts this fact into perspective. The IMF analysis shows that the GDP of Kuwait in the near future will grow at a rate much lower than the average of the period 2000 to 2010: 1.8 percent compared to 4.8 percent respectively (Townsend, 2015). At the same time, Kuwait's 2015 GDP growth was also cited as the slowest among countries within the Gulf Cooperation Council (GCC). The other GCC countries were less affected by the drop in oil prices by being more diversified. Dubai, in the United Arab Emirates (UAE), for example, managed to create a GDP that is 95% non-oil based by relying on tourism and the presence of an open business-hub in the Middle Eastern market. By diversifying the economy, Dubai has managed to almost completely dodge the direct impact of the 2014 collapse in oil prices, caused by surprises in oil demand and supply shocks in the second half of 2014 (Kilian, 2015).

The trend in oil prices shows the substantial negative impact of non-diversification on Kuwait's future economic growth. As global oil prices continue to fluctuate, Kuwait will need to devise means of protecting its economy from further deterioration. As has been noted, non-diversification is characterized by weak investments and accumulation of excess revenues that

end up being channeled in the wrong activities, which lead to an inefficient economic development.

1.1 Economic Development

With its strategic location in the North-East of the Arabian Peninsula, Kuwait boasts one of the world's largest oil reserves in the world. According to Al-Sabah (2015), Kuwait served as the centre for trade and commerce between various regions including India, Africa and Mediterranean countries. However, its strategic position as a leading country for commerce in the gulf changed following their border row with Iraq as the lack of political consensus between both countries after the Gulf War has distressed many industries, such as the transportation industry in Kuwait. The discovery and development of oil improved the economy of the country as well as the standards of living of its population. Kuwait is largely dependent on oil revenues, with the IMF estimating that oil revenues account for 95% of the export revenues as well as the government income (International Monetary Fund, 2013).

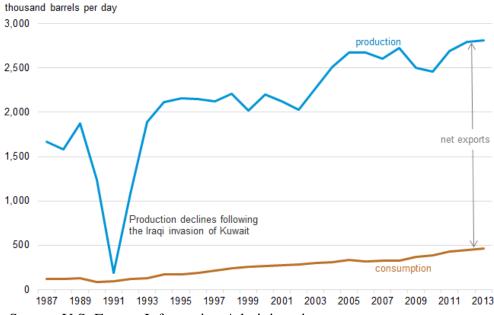


Figure 2: Kuwait's oil production and consumption, 1987-2013

Source: U.S. Energy Information Administration

The increase in oil production level as well as prices following a high demand for oil products from countries such as India and China contribute to Kuwait's high growth in recent history. The surge in returns from oil supported Kuwait's government in providing security for its future. However, long-term security is unattainable unless the necessary reforms are applied to diversify the economy from oil-dominated revenues.

Kuwait's economy is fully integrated within the world economy, meaning that any external fluctuations in the global economy directly impacts the country's sources of income. Therefore, the stability of the country's economy is subject to various factors such as shifts in the demand for oil, changes in the exchange rates and any form of global economic changes. The impact of the collapse in oil prices in the second half of 2014 and the 2008 Global Financial Crisis on oil prices and oil-producing countries is a good example of what can potentially happen in strong negative declines in oil prices or even the absence of oil. Thus, the Kuwaiti economy's dependence on oil can potentially be risky to its own sustainability; there is a need to diversify.

1.2 Economic Diversification

The effective strategy of economic diversification was brought forth by the GCC in the past. The approach was adopted in early 1986 following the collapse of oil prices, to as low as \$7 per barrel (\$22 today, when adjusted for inflation) from a peak of \$35 (\$102 today) in 1980 (Wood and Alsayegh, 2014). The 1980s oil glut was caused by a decrease in demand and an increase in supply of crude oil. The supply and demand shocks were triggered by the 1970s energy crisis, where the Arab oil-exporting countries declared an embargo in 1973 against the US as a response to their support for Israel during the Yom Kippur War. The US nearly halved its imported oil in 1983 compared to 1977 because of lower consumption and American-made cars' fuel economy increased by 30 percent. Despite the Organization of Petroleum Exporting Countries (OPEC) nearly halving their oil production in the 1980s to keep high oil prices, they failed to maintain a dominant position in the global oil market.

While other GCC countries refocused their energy towards diversification in an effort to counter the negative effects of the falling oil prices, Kuwait was the only nation where the contribution of non-oil industries was insignificant after the decline following the Gulf War in 1990, as explained in Figure 1. For instance, UAE, Qatar and Saudi Arabia achieved significant progress through reducing their reliance on oil and instead focusing on the diversification of income sources. According to Fasano and Iqbal (2003) Qatar developed gas-related industries and services, UAE invested heavily in tourism, and Saudi Arabia focused more on the development of consumer services. However, the contribution of non-oil economic sectors in Kuwait is weak in comparison to the other Gulf countries, as shown in Table 1, forcing many companies to relocate, which scared off investors. This low contribution was partly due to the government's short-term way of thinking and prolonged political tensions.

Table 1: Percentage of oil as an economic indicator in Gulf countries

Country	Percent of export earnings	Percent of state budget
Bahrain	69	86
Kuwait	90	93
Oman	65	77
Qatar	91	80
Saudi Arabia	85	85
United Arab Emirates	69	77

Source: Hvidt, Martin (2013)

The lack of political consensus between the legislative and executive branch played a negative role in the creation of a favorable environment for investors as well. The political instability has led to failures in the implementation of crucial development projects. For instance, a joint venture between The Dow Chemical Company and Kuwait Petroleum Company (KPC) was established and signed in mid-2008 after an agreement from the executive branch as KPC is a state owned company. However, the parliament criticized the deal which resulted in its collapse in December 2008. As a result of such dissensus, Dow sued the State of Kuwait for damages by a non-governmental court in 2012 and was awarded \$2 billion (Daily, 2012).

1.3 Kuwait's plan for diversification

Having been fully aware of the negative effects of reliance on oil, the Kuwaiti government has recently launched a long-term plan, entitled "State Vision Kuwait 2035" (Al-Sabah, 2015). The main pillars of the policy include: improving the economy through transforming it into a financial and trade hub; provisioning of an essential climate for human development and safeguarding the social and religious values of the community; strengthening of the democratic space through enhancing respect of the laws and the constitution, (Hvidt, M. 2013). The aim is to improve the economy by improving the Kuwaitis' standard of living, encouraging the private sector to play a leading role in national development, adopting the strategies that support human and social development, and supporting the demographic policies.

Kuwait has not been able to implement any meaningful development projects with significant economic value outside of the oil sector despite the risk that this dependence cause. Because of the neglect in creating other sectors, Kuwait's economy has experienced an increase in dependence on oil revenues. Nagy (2002) indicates that this negligence is not only limited to the implementation of infrastructural projects, but also other sectors such as transportation and finance. For example, the Kuwaiti Airways Corporation is on the verge of bankruptcy and losing an average of \$100 million a year due to this negligence (Behar, 2016). The organization of 'Hala February', a very costly one-month public festival to celebrate Kuwait's liberation and allegedly increase tourism, has also not helped in improving the declining tourism sector. This situation, if not curbed seriously, is likely to lead to the economic deterioration of Kuwait. To sustain a positive economic growth, the government needs to adopt the applicable practical measures applied by other GCC countries such as Saudi Arabia and Qatar. For Kuwait to improve its current condition, the country must first work towards improving the harmony

between the legislative and executive powers in the country (Singh, 2010). The legislative branch (parliament) should pass legislations that promotes investment and attract investors. Political consensus will be a major step towards economic diversification.

Economic diversification in Kuwait should be one of the most crucial aspects of the government's agenda towards economic development and prosperity. The reason for this is that most of the GDP growth relies on the proceeds from the oil sector and that economic growth has been significantly accounted for by the factor accumulation as mentioned earlier, increasing the economy's vulnerability. There is a need to utilize the potential contribution of diversification to the total factor productivity (TFP). It is necessary for Kuwait to improve productivity as shown in Figure 3 below by the country's low TFP trend, which is measured by the Solow residual and it's determined by how efficiently the inputs in production are utilized, making a country with a low TFP also low in their efficiency in output. The high impact of the oil sector on Kuwait's productivity and the significance in having efficient production is depicted in Figure 3 with Kuwait's low and decreasing TFP compared to that of Norway, Singapore, and even the UAE.

(Index, 1970=100) Kuwait Norway Singapore 1978 1982 Source: IMF, (2013)

Figure 3: Total Factor Productivity, 1970-2010

There is a need for Kuwait, as well as other resource dependent nations to adopt a new mode of diversification since they have failed to take the necessary strategies that could have positioned and enabled them to benefit from globalization and the multilateral trade agreements to utilize their resources. Economic diversification in Kuwait is also important since the country has concentrated on the issues regarding macroeconomic management, but it can be explained with the decreasing TFP trend over the years that the government has been neglecting the sectoral issues. This has significantly weakened diversification; the commodity production sectors have increased with the largest share of these sectors being attributed to the oil sector. For instance, despite Kuwait's fortunate geographical location giving it great exposure to the sun, the solar energy industry has seen insignificant investments. Also, for Kuwait to be more productive, the postponements in public spending needs to stop and investments in energy, infrastructure, and the SWF has to increase. Research has shown that increase in productivity will aid in diversification by creating a higher ability for a positive change in the economy.

1.4 Research and Development

Wood and Alsayegh (2014) indicate that Kuwait has invested relatively low in research on matters of economic diversification. This is partly because the country's institutions of higher learning are bent on teaching theory while insufficiently prioritizing research. Moreover, the industrial base of Kuwait is primarily made up of the processing industries, with an insignificant portion producing products with higher value. Instead of the prevailing situation, the country's vision for the future aims at changing the focus of the nation towards improving knowledge, with

planning the necessary reforms to develop education. There is an urgent need to educate the general population on the dangers of overreliance on oil products. Education will also be essential in empowering scholars with the necessary knowledge and skills that crucial for innovation and effective investment in other economic sectors. Investment in research will also benefit with the expansion of the upstream and downstream petroleum industries to increase efficiency in production as well as increase diversification and help sustain the Kuwaiti economy.

Al-Kawaz (2008), on the other hand, explains through an input-output approach that the generation of exports, employment, GDP, and other economic variables from various sectors is essential for lowering the fluctuation in economic activities. In this regard, the diversification objective is supposed to aim at utilizing the comparative advantages of the various development strategies. This ensures that the adopted strategy contributes optimally to the economic improvement. Despite the importance of the aforementioned considerations (i.e. risk and comparative advantages), developing nations such as Kuwait are reluctant to apply these economic endowments. Instead, most of the diversification strategies that they apply involve conforming to a dispersion standard for various economic variables such as employment and export.

Hvidt, Martin (2013) asks the question of whether SWFs play a role in diversification and briefly discusses that role. Economic diversification through the SWF can be feasible as it diversifies Kuwait's oil economy to an economy with multiple sources of income. However, a large part of the population (primary, secondary, and tertiary sectors) must participate and the private sectors involvement is also necessary for achieving diversification as Hvidt, Martin (2013) explains. Kuwait lead the development in SWFs by establishing the Kuwait Investment Office, which is

KIA's office in London in 1953 (Beblawi 2011: 189–90). By 1990, during the Gulf War, Kuwait's reserve fund was estimated to hold \$100 billion (Europa Publications, 2008).

Chapter 2

Sustainability of an Oil Based Economy

The Kuwaiti economy's sustainability is at risk if the existing oil resources are overexploited. Oil-oriented economies suffer severely from threats and weaknesses. The high dependency of Kuwait on oil revenues is a major threat, hence the need for strategic assessment and management for the sustainability of the economy. Recently, there has been a progressive decline of oil reserves in Kuwait. The oil sector is unsustainable with the high volatility of the global oil market and unpredictable oil prices.

The sustainability of the Kuwaiti economy is reliant on the implementation of effective, sustainable strategies by embracing diversification. Kuwait may diversify the economy by fostering internationally competitive economies such as investment in commercial sectors, aviation, agriculture, real estate, and tourism. Diversified economic policies will lead to a flexible economy that can survive within the ever-evolving global market. The current global market is heading towards a post-oil era. This means that there are new innovations that create less reliance on oil-based energy. The IMF identifies the most notable changes are in electrical energy, biogas and solar power as sources of energy which are environmentally friendly and create a threat to oil based energy since they can be perfect substitutes if technology is able to get their cost and efficiency to the same as that of crude oil (International Monetary Fund, 2014). Technological advancements should be a trigger for diversification in Kuwait, but the government is not responding accordingly to these advancements.

There has been a persistent dispute between the national assembly and the government.

This noted conflict has paralyzed formulation of sustainable economic policies over the years

due to lack in political consensus. According to Ganguli (2016), Kuwait was listed among the most developed Gulf countries in the 1970s. However, in recent years it has been ranked the fifth among GCC countries in the Human Development Index (HDI) with a 0.800 HDI value followed by Oman's 0.796 HDI value and a critical part of this relative lack of development is the lack of political consensus (Jahan, 2017). The oil-based economy of Kuwait is deeply affected by political deficiencies as well as high risks to global economic shocks.

With a growing population, there is an increase in consumption and an oil dependent, single economy may be inadequate to sustain the level of consumption. There is no doubt that Kuwait needs to drive towards economic diversification. However, it is challenging for a country with an economic structure like Kuwait's to diversify due to the difficulty in finding a comparative advantage in today's competitive markets. Therefore, a logical and sustainable strategy is to increase investments in the SWF as it has proven to be reliable over a very long time.

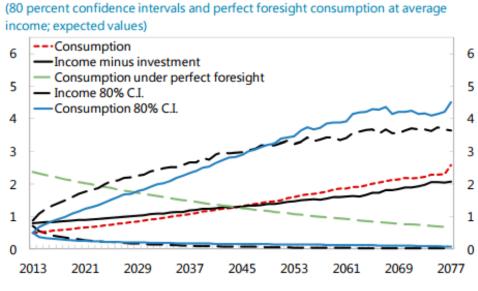
Chapter 3

The Transition to Sovereign Wealth Fund

The Kuwait Investment Authority (KIA) was the first SWF to be established by a sovereign state. Kuwait's KIA came into being in 1953 by investing in the city of London as Kuwait continued to enjoy significant surpluses from oil revenues. The KIA can be traced to the Kuwaiti Investment Board which was established 8 years before the nation attained independence from Great Britain in 1961. The creation of the autonomous body was realized under Law no. 47 with the mandate of managing state assets (Kuwait Investment Authority, 2017). Since then, KIA has grown to approximately \$600 billion (Blackburn et al, 2008). SWFs are normally created in scenarios where governments experience surpluses in national budgets as well as the absence of international debt. Since it is not desirable to use the excess liquidity for immediate consumption, Kuwait has been able to grow its SWF to such a significant amount. From the outset, a SWF was suited to Kuwait's situation since it heavily relied on oil, which often experiences high volatility in prices, exhaustibility, and unpredictability of extraction. Therefore, Kuwait intended to caution its citizens from price fluctuations in oil as their standard of living might significantly decrease if oil prices collapse (Schimbor, 2009). This strategy of achieving a more secure and stable economic performance, has the aid of the SWF by achieving a stable path of consumption and possibly a sustainable permanent income. It is the most rational strategy as it provides relatively low risk by diversifying the economy in various investments such as real estate and purchasing equity in well-established and reliable corporations. Additionally, the country has had revenue surplus in the past, making it an advantage for Kuwait's economic diversification. With rising population and consumption, Kuwait will need to

create sufficient and sustainable income to offset its costs and investments as shown below in a simulation of average consumption and income time path.

Figure 4: Simulated Time Paths of Average Consumption and Income, 2013-2077



Source: IMF, (2013)

Kuwait has had a very prosperous surplus in the past decade before the drop of oil prices in the second half of 2014, giving the KIA high revenue since it is correlated with the oil revenues. All KIA's revenues are received by the General Reserve Fund (GRF) which then allocates money to various programs. One of the main programs is the Future Generations Fund (FGF). The GRF is mandated to allocate a certain percentage to the FGF. The FGF is the country's long-term investment strategy under the management of the Kuwait Investment Authority (KIA). While the FGF's percentage from the GRF's income was 10% in the past, this limit was amended to a fixed 25% by the Council of Ministers in 2012 (Schimbor, 2009). The reason for the increase in the allocated funds towards the FGF and the high investments in the SWF in general is explained in figure 5 by showing the significance of the SWF in creating a stable path of consumption for Kuwait. Given that the forecasted measurements shown below

hold true, it is vital for Kuwait to invest even more in its SWF to have a reliable income that would diversify and sustain the economy.

(Wealth before consumption; expected values) Cash on hand ---SWF —Consumption — Consumption 80% C.I. Source: IMF, (2013)

Figure 5: Average Consumption, SWF, and "Cash on Hand," 2013–2077

While SWFs are crucial for ensuring the survival of the economy during hard economic times, the use of a fixed percentage (25%) in Kuwait means that the transfer to the SWF is likely to be applied inconsistently. In other words, the savings to the SWF are not cyclically adjusted depending on the level of revenues from oil. Therefore, the government should increase its risk in the SWF's investment strategy to reach the highest returns possible. Even when increasing the risk of investment for higher returns, investments in the SWF remain one of the safest and

The 4.1 million population in Kuwait is comprised of a large youth percentage (40.34% of Kuwait's population is under 24 years of age and 25.18% is under 14) and almost half the population is employed in the public sector, (Baldwin-Edwards, 2011). Productivity has been growing at constant rates due to the rich oil reserves and heavy investments in the oil sector. According to The Heritage Foundation (2017), Kuwait has a GDP (PPP) of \$288.4 billion and a

most reliable investments given it's very dependable and consistent portfolio.

4 percent, 5-year Compound Annual Growth Rate (CAGR). Due to the high focus on the oil industry, employment is concentrated in the petroleum industry. Although unemployment levels are 3.5%, the economy is likely to create further unemployment problems in the absence of diversification, which can be explained using Kuwait's TFP as explained earlier in Chapter 1.3. Thus, many Kuwaitis have taken measures to insure against possible unemployment by accumulating precautionary wealth. As individuals pursue the decision to save, net foreign assets have also accumulated for the entire economy (Schimbor, 2009).

The transition to SWF is guided by the target wealth-to-income ratio. Essentially, consumers are impatient about economic growth, which makes their wealth-to-income ratio stay low. During periods of declining prospects such as the 2008 Financial Crisis, consumers intensified their precautionary motives amidst declining wealth. Therefore, at some point along the scale of declining wealth, the sensitive precautionary motive is sufficient to counterbalance the impatience of consumers. This point, where there is a match between prudence and impatience, is what defines the target wealth-to-income ratio. The aggregate net foreign assets can be found by adding up the balance sheets of individuals. These individuals include the unemployed and the employed workers. While aggregating the resources across the generations of employed and unemployed individuals, it is important to consider the assumptions that take into account the stake of the new generation in the economy. A stake is defined as a share that is received by the new generation through transfer. Some models do not have stakes, which means that newer generations are not in a position to receive transfers. As such, they must employ their own prudence in order to accumulate wealth (Schimbor, 2009).

In Kuwait's scenario, stakes are notable through the FGF's high and secure assets. The FGF is essentially a savings fund that takes in 25 percent of annual state revenues where the

majority would be invested in economically safe markets in the US and Europe and the rest in emerging markets (Natural Resource Funds, 2013). The goal of Kuwait's SWF has always been the security of its citizens by ensuring that the new generations enjoy the protection of the precautionary funds. Moreover, the transfers ensure that the wealth-to-income ratio of the new generation is at par with the rest of the population. This kind of model, as it applies in Kuwait's single economy, has the advantage of being more manageable. According to Schimbor (2009) the main purpose of the SWF in Kuwait is to promote savings in the form of wealth preservation, inter-generational transfer, and expansion. However, the fund has experienced periods of fluctuations and imbalances.

Chapter 4

Prospects of reforming Kuwait's single economy

Kuwait is making efforts to modernize in order to have the economic structure that is necessary for the country's prosperity and building market-friendly reforms to attract new industries and turn Kuwait into a regional economic hub. A major reform is the creation of a market-oriented economy that is well regulated. Regulation policies need to be formulated in a stable political system. Concerning this perspective, it is significant for the national assembly and the government to be at peace for the creation of transparent economic reforms and regulatory efficiency.

Unfortunately, the government has not fully embraced the required reforms. According to a recent article by the Word Trade Organization (WTO), Kuwait has recently been experiencing setbacks in economic growth. The article points out the major fallbacks in Kuwait's economy. Kuwait performs particularly poorly in size of government, sound money, free trade, business regulations, and labor market regulations (WTO, 2012). The recently slow economic development in Kuwait has resulted to its low economic ranking among Gulf Counties. A significant part of Kuwait's fallback is due to the political system which lacks political consensus.

Kuwait's oil based economy was faced with a deficiency in 2015 following a collapse of oil prices. The price falls contributed to the budget deficit in Kuwait which occurred after 15 years of surplus. SWF rankings recorded a 45% drop in revenues and predicted a larger deficit in the future if there is less diversification in the economy. Gengler and Lambert (2016) reveals that the economic results have been unusual since the Kuwaiti citizens are fortunate to have a

satisfying lifestyle attributed to the world's high demand for oil-derived energy. Furthermore, the IMF warned Kuwait regarding the deterioration of the fiscal and external accounts after the oil price collapsed (International Monetary Fund, 2014). According to Ramadhan et al., (2013) significant reforms to curb the issues include control of new sources in the energy market beyond any private lobby's control. Political support for the national assembly and the government in regards to utilization of "green energy" is expected to decrease oil demand in the future, "There is the need for reforms such as establishment and development of private sectors and other structural reforms in a drive to diversify the economy." (p. 415).

Economic reforms, however, are not only a role of the government but a collaboration of the government and the citizens. The government is expected to embrace sustainable economic management, particularly of the oil industry. Also, there is the need for the development of diversified economic sectors that favor privatization and help in total productivity. In essence, the citizens need to foster a positive attitude towards development providing favorable situations for the government to the citizen's productivity. With the evolving global economic changes, Kuwait needs to focus on implementing the economic reforms urgently.

Chapter 5

Conclusion

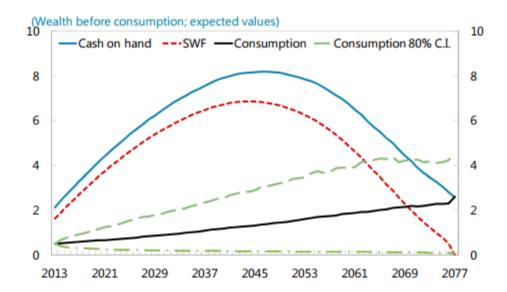
Oil based economies face a challenging set of barriers which prevents them from sustainable future economic growth. The main constraints of this result are the vulnerability of oil-based countries towards changing oil prices and the advancements in oil alternatives. To overcome these barriers, these economies must enhance methods of diversification. Kuwait needs to reform its oil based economy by moving towards a sustainable economic development by increasing investments in the SWF and maintaining a growing level of Kuwaiti citizen's participation in the economy.

By increasing investment in KIA, Kuwait can have more income security in both the short-run and the long-run. Consumption smoothing is more likely to be successful in Kuwait's economy by increasing the size of the SWF since it provides a relatively low risk of investment and high returns as proven with KIA's reliable investment portfolio. This positive shift towards the SWF, however, needs to be complimented by the Kuwaiti citizen's contribution towards a positive economic performance. Lack of political consensus as well as production deficiencies have proven setbacks in the Kuwaiti economy. In recent history, KIA has shown increasing returns.

Studies on the success of oil based economies provide areas of research that need more consideration. There has been significant attention in research and analysis towards diversification, however, there's still more attention needed in the area of economic diversification for the Gulf countries. For instance, researching whether Kuwait can live solely off the KIA in the long-run can determine how the transfer to SWF would impact the

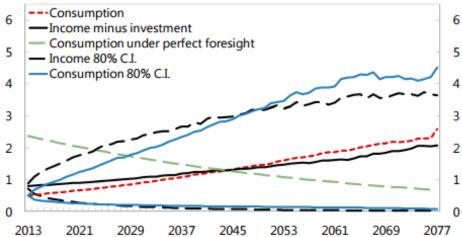
productivity of the oil-rich society. Knowing the most sustainable method for diversification in Kuwait could be beneficial for the Kuwaiti government as well as institutions that study the economics of transition and are searching for ways towards economic diversification.

Appendix A



^{*}IMF calculations.

(80 percent confidence intervals and perfect foresight consumption at average income; expected values)



^{*}IMF calculations.

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EDUCATION

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Schreyer Honors College B.S. Economics and B.S. Industrial Engineering Minor in Six Sigma

WORK EXPERIENCE

Penn State University University Park, PA

January to May 2015

Research Assistant for Dr. Kofi Adu, Physics Department

- Gathered existing studies and data on Electrochemical Capacitor
- Used Microsoft Excel to examine basic trends and patterns of the Electrochemical Capacitor and Thermoelectric data

Al Manar Printing Press Shuwaikh, Kuwait

May to August 2015

Assistant Project Manager

- Optimized production line by decreasing production time
- Used R, Minitab, and Excel to analyze and forecast data of the production line

LEADERSHIP

Muslim Student Association (MSA) Penn State University

January 2014 to May 2015

Founder and President