The Effects of Global Financial Crisis on Bank Lending: Evidence from Selected ME Countries

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Submitted to the
Institute of Graduate Studies and Research
in partial fulfillment of the requirements for the Degree of

Master of Science
in
Banking and Finance

Eastern Mediterranean University
October 2017
Gazimağusa, North Cyprus

Approval of the Institute of Graduate Studies and Research

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ABSTARCT

The recent global financial crisis has affected many economies including both developed and developing economies. The decline in global production has also decreased the demand and prices of commodities including oil. Lower demand for oil was expected to have significant impacts on the oil exporting countries mainly those in the Middle East. This study investigates the effects of change in oil prices, GDP and deposits on bank lending in the selected Middle East countries. The objective is to understand to what extend the global financial crisis has affected bank lending performance. In this respect, the study uses the data of Saudi Arabia, UAE, Egypt, Jordan, Qatar and Iraq for the period 2005 to 2015.

The correlation analysis shows that there is a negative but not significant relation between oil prices and banks' lending. This indicates that banks' lending behavior is not correlated with the change in oil prices. The analysis also shows that there exist a negative and significant correlation between the GDP and bank lending. In addition, amount of deposits in the banking sector is positively correlated with the amount of loans given to the private sector. When change in oil prices, GDP and deposits are regressed; GDP (negatively) and deposits (positively) are found to have significant impact on bank lending. The analysis indicates that deposits are the main source and determinants of bank lending in the studied economies.

Keywords: Bank lending, oil prices, deposits, gross domestic product

ÖZ

Küresel finansal kriz gelişmiş ve gelişmekte olan ekonomileri olumsuz etkilemiştir. Küresel düzlemde yaşanan üretim gerilemesi, petrol dahil emtia talebinin ve fiyatlarının azalmasına neden olmuştur. Özellikle petrol ihraç eden ve petrola dayalı Orta Doğu ülkeleri bu düşüşten özellikle etkilenmiştir. Bu çalışmada, petrol fiyatları, GSYİH ve mevduatlardaki değişimin bankaların kredi vermesini etkileyip etkilemediği incelenmiştir. Çalışmanın amacı küresel finansal krizin bankaların kredi verme performansını nasıl etkilediği anlamaya yöneliktir. Bu bağlamda, Suudi Arabistan, Birleşik Arap Emirlikleri, Mısır, Ürdün, Katar ve Irak verileri 2005-2015 için kullanılmıştır. Yapılan korelasyon analizlerinde, petrol fiyatları ile bankaların kredi vermeleri arasında anlamlı bir korelasyon bulunamamıştır. Bu, bankacılık sektörünün kredi verme performansının petrol fiyatlarına bağlı olmadığını göstermektedir. Diğer taraftan GSYİH ile kredi verme arasında negatif bir korelasyon olduğu tespit edilmiştir. Bunun yanında, bankacılık sektöründeki mevduatlar ile kredi verme arasında pozitif korelasyon olduğu da saptanmıştır. Regresyon analiz sonuçları, petrol fiyatlarındaki değişimin sektörün kredi vermesini etkilemediği, GYSİH ile mevduatların bankaların kredi vermesini anlamlı etkilediği tespit edilmiştir. Buna göre GSYİH'daki artış kredi vermeyi olumsuz etkilerken, mevduatlardaki artış bankaların daha yüksek miktarda kredi vermesine neden olmaktadır. Bu analiz, bankacılık sektörünün kredi vermesinde mevduatların belirleyici olduğunu göstermektedir.

Anahtar Kelimeler: Krediler, petrol fiyatları, mevduatlar, gayri safi yurtiçi hasıla

DEDICATION

This project is dedicated to my wife for her inspiration and unconditional care, support and encouragement. May God reward you.

ACKNOWLEDGEMENTS

Special appreciation goes to my mother, my kids and my friends for the love, care, encouragement and unwavering support throughout the development of the research. I am grateful for your consistent confidence in my capabilities that has assisted me to see this project to the end.

To my Professor, Supervisor, Prof. Dr. Mustafa Besim, for his unyielding support and guidance that enabled me to complete this thesis, special appreciation too.

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INTRODUCTION

1.1 Introduction

The Middle East credit worthiness has been on the downward trend since June 2015 due to the economic instability that has been stirred by the low oil prices. S & P indicated that the fortunes for the Middle East followed the oil prices with Saudi's TASI index dropping by 21% in January 2016 and rebounding by nearly 10% by the end of January 2016. Following high deterioration of fiscal deficits in Oman and Saudi Arabia that resulted from the increased level of government expenditure and continued drop in oil prices, the S & P lessened the ratings of the two countries. Consequently, the US currency has unrelentingly affected the demand for the rising marketplace even other business sectors especially in Asia.

Even the non-oil sectors of the UAE have experienced an impact from the low oil prices. The Emirates National Bank of Dubai (NBD) asserted that it was expected that the low oil prices will cause slowed growth and development in non-oil sectors as well as the banking sector. Despite this global financial crisis, the banking industry in this region has experienced a period of asset growth in 2015. By the provision of sukuk, Islamic financial institutions in the Gulf Cooperation Council (GCC) have enhanced their sources together with their liquidity. Mostly, they are keen on growing their capital to asset ratio. Among the Islamic banks that have come

together to increase the capital is the Kuwait Finance House, Dubai Islamic Bank, Saudi-based Bank Albilad, and Qatar Islamic Bank (QIB).

1.2 Background of the Problem

The impacts of fall in oil price on local economies of Middle East have resulted the Islamic banks and other Islamic financial institutions operations (Abedifar et al., 2015). In this regard, they decided to look for new markets by providing sukuk due to the loss because of the drop in the oil price. However, significant numbers of the banks come back to business after the stability of crisis, despite of uncertainty on the future stability of the oil prices (Salim, 2015). Because of that the global financial crisis in the Middle East inversely affected the operation of the banks in the Middle East resulted in decreasing of appetite of investors.

Following the low oil prices affecting the operations of the Islamic banking, many controversial debates have risen with some arguing that the turbulence could pave better deals for the banks (Almanaseer, 2014). Others have it that the turbulence will continue suppressing the banking operations in the Middle East.

By looking for new markets, the banks in the Middle East are likely to improve their operations (Khan & Bhatti, 2008). For example, during the 2008 global financial crisis, the Abu Dhabi Commercial Bank (ADCB) purchased a 25% stake in the RHB Capital, Malaysia' fourth-largest lender for $1.2 billion (RM3.88) (Silverman, 2016). During the time of purchase, ADCB paid a 36% premium on the bank's price (Silverman, 2016). ADCB made the acquisition amid the prospect of the interest rates hikes and the rising inflation. The bank experienced a robust growth due to the well performing Islamic banks in Malaysia and the strong commercial links between

Malaysia and Middle East. Those who support the opportunities that results from global financial crisis also argue that in the United States, companies that made acquisition during downturn make more than triple the return as compared to those that acquire during the boom years (Varlı, 2013).

On the contrary, some scholars argue that the global financial crisis in the Middle East will adversely affect the banking sector and their funding activities. They argue that, besides the low oil prices affecting the banking sector, other factors such as civil war and frequent violence experienced in the region will negatively affect the operation of the banking sector in the Middle East (Silverman, 2016). The increasing unemployment among the youths causes the undiversified economies making the Middle East economic prospect to remain grim. Following such unsettled controversies, the study assessed the impacts of the crisis on the banking industry in the Middle East.

1.3 Statement of the Problem

The slow cash flow into the Middle East because of the drop of prices of oil has significantly bad influences on the local economies in this area. The banks that provide sukuk have been forced to seek for new market areas in external regions. Nevertheless, there is yet global financial crisis and no confidence about the oil prices stability, which causes to create a doubt in the banking sector in this region. In this regard, this dissertation examines the effect of the worldwide financial crisis on banking in the region.

1.4 Purpose of the Study

The global financial crisis makes substantial influence to the economic stand of the countries; one of the important results of crisis is the drop in the oil price and the

decline in economic growth. In addition, there have also been signs for reduced deposits in the region. Due to the instability that has resulted in many sectors of the economy, the purpose of the study is to evaluate the impacts of the global financial crisis on the performance of the banking sector in lending and providing credits to the economy in the Middle East.

1.5 Objectives

i. To investigate the influence of global financial crisis with reduced GDP growth on bank lending in the Middle East region
ii. To analyze the impact of change in the oil prices on bank credits.
iii. To determine the influence of depositing on credit provisions of banking sector because of crisis.

1.6 Research Questions

i. What are the effects of the global financial crisis on the bank lending to the economy in the Middle East?
ii. What could be the effect of change in oil prices and deposits on credit performance of banks in the Middle East in the consequences of the worldwide financial crisis?

1.7 Significance of the Study

Investigation of the effects of the global financial crisis mostly on banking will improve the understanding of the complications of the crisis in defining a modern characteristic of the Middle East economy. It will also provide the basis for understanding the effect of oil prices on the banking sector performance in providing credits. Additionally, a comprehensive understanding of the effects of the worldwide financial crisis including changes in size of deposits, GDP and oil prices in the Middle East will provide detailed insight the sector in general.

1.8 Structure of Thesis

Chapter two of the dissertation will explore the documented literature on the banking structure in the Middle East. It will also analyze the global financial crisis in the Middle East as well as the effects that may have been previously witnessed. Additionally, the chapter will analyze the financial position of the banking sector in relation to international financial performance. Aspects such as the global financial performance of multinational corporations in addition to Middle East trade transactions will take center stage in analyzing the region's economic prowess not only in the vast eastern concept, but globally. While the performance of the banking sector forms the primary key to the regions financial stability, other external factors will also be used as indicators such as the trade deficit, an important global trend especially in terms of oil exploration and exports.

Although several factors played in the stability of Middle East countries during the global financial crisis, it is apparent from the studies that fiscal policies in addition to government interventions played a key role. The chapter further explores the external trends that played a primary role in the banking industry throughout the global financial catastrophe. During the period, it became apparent that only stringent and strategic policies could save financial institutions from sinking and recoding massive loses. While it remained to be seen what occurred to the majority middle level financial institutions, it is no doubt that they also felt the strong effect of the crisis at the time. Financial behavior of multi-level corporations often points to the economic health of an organization or region. During the financial crisis, major financial institutions were affected with rippling effects such as layoffs and poor performance

as explored an analyzed in the chapter. The chapter provides a comprehensive examination of some of the glaring effects of the crisis during and after it occurred.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

Literature review chapter will discuss various studies on the effects of worldwide economic crisis on the banking sector in the Middle East. This chapter will intensely elaborate how the various countries in the Middle East have been going through financial crisis and the impacts those crises has made to the economic growth and the Islamic Banking. Islamic banking can be defined as the taking of deposit that provides all the currently banking activities with the exception of borrowing and lending on interest. It accepts the demand and the deposits that are offered by the clients and are treated as free loans. Islamic Sharia Laws help in the distribution of the losses to the clients. The integral part of Islamic banking operations is the equity holding, commodity and assets trading. The study will articulate the gap that has been made on the Middle East Islamic banking and cover the impact of financial crisis, what should be done to solve the demise, and what should be avoided because it can lead to banks bankruptcy.

2.2 Impacts of Global Financial Instability on Islamic Financial Institutions in the Middle East

The current financial crisis has been viewed as the worst of all since the greatest depression of the 1930's. The review of literature will focus on the impact that the economic crisis has had on the Islamic banking of the Middle East. For an extended

period, Islamic banks have had to witness the double-digit growth rate, which surpasses their conventional peers (Almanaseer, 2014). Islamic banking started destabilizing when it failed to surpass a third of the market stake in the Gulf Cooperation Council (GCC) nations. The recent crisis in the international markets has focused its devotion on the health of the financial system of every nation. The structured investment vehicles and the mortgage in related insurance depreciated as it invalidated many behavioral assumptions in risk, reward, hedging models and has been said to leave the financial sector with hidden assets, which contained substantial known liabilities (Almanaseer, 2014).

The ideas that explain the occurrence of the crisis on the regions banking system goes from the academic studies to the daily studies (Sufian, 2014). Some activities like gambling (investing in areas of high risks especially casinos and gaming) have been identified to contribute significantly to the banks being broke. It has been identified that the crisis found in the system of forthcoming due to trade deficits from the US since the year 2000 is what has spearheaded this demise in the Islamic Banking. People lacked necessary information on how to use the credit default swaps. In a study done on the behavior of the Islamic Banking, if everything else were to be constant, the higher profit would be due to the greater leveraging and superior loan that is necessary to assert all the ratios and the banks that take higher risks (Sufian, 2014). It was clear that Banks make more profits exceeding their corresponding partners, but the problem was the fact that there was the explicit and the implicit taxes that affects the banking performance measures in an entirely negative way making the banks to incur losses than profit.

The high degree of the imperfect information and the rent-seeking behavior are the key features in which the developing economies of the Islamic banks operate from. The agency challenges come because of the conceptual incompleteness and the savings that will be biased towards the debt financing. Islamic finance is found in code of partnership and collaboration. This therefore means that it advocates for fairness when stakeholders share risks. Islamic banking aims at increasing the performance of the community members through creation of an economic friendly environment and expansion of physical economic amenities (Gaither & Al-Kandari, 2014). It thus shifts its focus from the financial worth of the customers to the capitalist's loyalty and effectiveness of a project ("Special issue on Islamic banking and finance", 2010). The implications, therefore, go to the features and sharing of the credit risks and its systematic stability. Islamic finance can thus, be classified as the ethical investment because it is concerned with the effects of the economic decisions on society and attraction of key ethical investors. It is also imperative to go through the analysis of the Bank of America.

In the year 2008, there was a financial crisis that was brought forth by problems in the various conventional banks worldwide (Almanaseer, 2014). Islamic banks were protected from the instability because their environment of operation was steered by the Sharia principles. These principles banned the investment because the instruments used affected their conventional banks to prompt a crisis.

2.3 Legal Origins and Economic Development

Most economists argue that the financial legal system understanding is influential to understand the economic expansion of individual banks. It is also important to consider that both of them might have the impact on how the individuals respond to

the economic prospect and take advantage of them (Azouzi & Echchabi, 2013). These opportunities include ability to save, property rights protection, accessibility to liquid cash. These opportunities increase the rate of capital accumulation and investment, which in turn leads to sustain growth of the economy.

The enforcement of the contracts can act as a reinforcement to encourage the individual to engage in business transactions since they have put their faith in the terms and conditions of the agreement made. For instance, when World Trade Organization establishes new guidelines, countries gain the platform to change its practices according to the viability of the trade terms and the partners' agreement. The right strength and adaptability are crucial factors in the act of identifying the pro-growth legal origins. The legal sources are paramount, as they matter a lot in the financial development because they ascertain whether the systems are flexible to economic changes. Investment research and analyst, Ahmed Saud has been a vocal person with regard to the economic turbulence in the Middle East. One of the major economic turbulence in the region is with regard to oil investments. Numerous people have invested in oil and an effect has been a decrease in the level of income for the people in the region. Many investors in the Middle East have expanded to iron and the reason is that it has seen many people invest in countries such as Saudi Arabia where they have managed to get the attention of the West. However, it is imperative to note that many banks in the United States has not invented in the country owing to the fact that they have deemed the Middle East incapable of handling Economic issues.

States with stable legal regimes have more developed banks because they are highly involved in contract enforcement and lawful defensible importance that is accorded to the creditors. Per capita growth, productivity growth and the physical capital accumulation is dependent on the banking environment (Azouzi & Echchabi, 2013). Legal environments, therefore, have an effect on the banking sector since environmental components are related to the long-term economic growth.

2.4 Financial Developments and Growth

Financial institutions have associated with economic growth and customer attraction. The relations between commercial expansion and the economic development exist in three aspects that include financial development as the element of the economic development, financial expansion following the economic growth and bidirectional casualty that exists between finance and growth (Chaney, 2011). Banks that are better are the ones that can identify the creditworthy firms, provide liquidity, leverage and savings, the providence of liquidity and pooling risks accelerating the economic growth. Banks adjust the distribution of the savings to the numerous firms through offering of credits and raising the rates in the domestic saving to attract foreign capital. The responsibility of banking during the economic expansion revolves around time (Carlton, 2002). The financial systems deepen and widen as the growth in security markets goes beyond the banking systems. While the level of the bank development increases, the economic development also decreases regarding the marginal returns. It, therefore, implies that the relationship is non-linear.

If financial development can influence and contribute to the economic growth, it is also possible to increase the endogenous variable making the determination of the flow of causality to be more difficult.

2.5 Islamic Banking

Islamic Banking is founded on an antique legal organization, which develops as a result of a viable form of financial institutions. With the use of financial institutions, the practical investigations of Islamic banking and the tentative hypothesis can be developed to enhance the roles and economic growth (Gaither & Al-Kandari, 2014). Studies show that the power of the legal origins of a country is a vital when defining factor of growth. Islamic Banking, however, might not share this notion, as they are not passed using the legal institution but the Sharia law, which operates many borders.

Islamic finance is among the rapidly developing sectors of worldwide financial industry. It has expanded in most nations while it is still ignored in other countries. Islamic banks are guided by the principles of Sharia law, which deal with the Islamic religion. Sharia law focuses on all scopes of the society including the economy, politics and culture of the people. This system of banking was discovered during the 1980s and 1990s. It later expanded to other sixty nations across the world but was mostly approved in the Middle East areas. Theoretical model of Islamic banking is similar to the universal banking model. Each of this system is not limited by activities of giving loans to the clients. However, they involve in buying and selling shares from other companies. Most countries have penetrated to the market because the credits are interest free (Lukonga and Souissi, 2015).

Islamic Banks experience many risks and thus, it means that they should be able to act in more consideration and wisdom in making decisions. Financial intermediation is one of the significant activities that help in effective growth of the financial sector.

Collection and the savings of data from the many economic agents' make them to the investment is what makes the data to become so intense to the activity. It requires an institution that has the capacity to provide incentives to the savers so as they can pool resources with them. Additionally, they specialized on the data handling and checking to evaluate potential borrowers and their opportunity to invest and allot the money in the best way. In the conventional banking, the activities of collecting funds and disbursing them are done by interest charges.

The bank charges interest depends on the quantity of money invested by the clients though in most cases interest is barred in Islamic Banking (Gaither & Al-Kandari, 2014). They rely on the higher moral responsibility to ethical values and promotion of fairness in all the phases including finance. Islam economy, therefore, requires other institutional arrangements that are conducive to the goal of the Sharia law. The system allows one to Bank their money without the consideration of interest. Islamic Banking provides the incentives that are found in the institutions of finance so that it can render services that are provided in the form of sharing in the profits of the finance enterprise. Islamic banks do not gain funds on the interests based on the contracts, but they prefer to share the profit with their investments and the customer hence providing privileges to the savers to make proper use of the system.

The private individuals own most Islamic Banks in the Middle East region. The most residential Islamic Banking regions are found in United Arab Emirates, Qatar, Kuwait, Bahrain and Saudi Arabia. The scenery of the operations and the funding of the Islamic Banking are very unlike compare to the conventional banking. They operate through the following three categories (Lodhi and Kalim, 2005).

2.5.1 Demand Deposits

Demand deposits do not offer any profits to the depositor. Moreover, the depositor is allowed to withdrawal at any time that he or she sees fit. Safety and the facilitation of the payment are the key driving factors of the individuals and industries in protecting the bank accounts.

2.5.2 Unrestricted Investment Accounts

The funds raised by the investment accounts are used through the investment activities. The profits and the loss of the overall business are divided between the banks and the owners of the investment accounts. Those who own the investment account are not allowed to advise the bank on how to conduct its investment activities (Hasan, 2008). Investment techniques are expected to follow the Sharia principles.

2.5.3 Restricted Investment Accounts

In this category, profits and losses from a particular investment are shared between the account holder and the bank. The depositor and the bank form restricted Mudaraba relationship. In this relationship, accounts are not liable to the bank rather it forms a kind of impartiality whereby the stockholders do not have full authorization to vote (Hasan, 2008). Due to this purpose, there arose a corporation, which deals entirely with the ways to protect the interest of the depositors.

The specificity of how to invest and the restrictions in this category create or pave the way to greater risks for the savers in the limited investment accounts although the type of investment can bring higher revenues. The least investment is greater than in the other categories. The investment requirements are also higher, and they are offered to the wealthy investors.

2.6 Economic Outlook

In the consideration of the global growth, there have been disappointing factors that have arisen from the economic prospects of the Middle East areas. The rise of the refugee inflows, civil wars and terrorist attacks, subdued global economic recovery and cheap oil has been rampant. These factors are what are expected to dampen the short-term economic prospects in the region. Despite the low prices in the oil. The growth of the importers continues to slow down from its original level by 0.8% in 2015 and slow to 2.6 % in 2016. Should there be persistent security, then the standard of oil might increase to 3.4 in 2017 and 3.8 in 2018 (Ismal, 2012). Insecurity and the slow activity of the tourism and the remittance inflows are the key influences that cause slow development in these groups of the countries. The fiscal deficits and debt are way too high for instance the Lebanon's public debt has already gone to 138 percent of the GDP and is expected to increase by 7% should the situation be left unsolved. A summary of GDP growth, exports, fiscal debt and others.

Table 1: The Growth in Oil exports % (2010 to 2014)

	2010	2011	2012	2013	2014
Weighted Average	5.4	4.5	4.4	3.2	3.9
Bahrain	4.5	1.9	3.4	4.6	4.3
Kuwait	-6.4	6.3	6.0	2.0	3.0
Oman	5.6	4.3	5.7	4.6	5.7
Qatar	16.7	13.0	6.2	5.4	5.1
Saudi Arabia	7.4	8.5	5.1	3.9	4.2
UAE	3.0	3.9	4.4	4.7	3.9
Iran	5.0	3.2	-5.4	0.4	1.8
Iraq	5.9	8.6	8.0	3.0	4.5

Table 2: GDP Growth Rate and Inflation Rate in Middle East (2005-2012)

Countries	GDP growth rate (%)		Inflation rate %	
	Mean	S.D	Mean	S.D
Bahrain	5.4	2.2	2.4	1.1
Kuwait	3.5	4.9	5.1	2.5
Qatar	13.8	4.5	5.3	7.5
Saudi Arabia	6.3	2.1	4.5	2.7
UAE	3.1	3.5	5.1	4.7

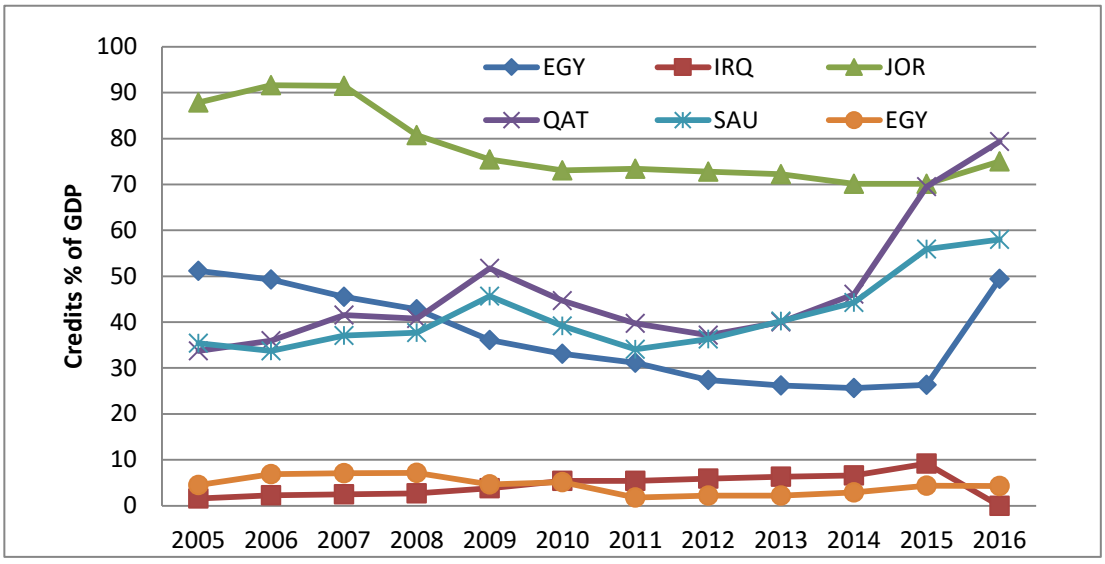

Figure 1: Domestic credit to private sector by banks (% of GDP)

Source: World Bank (2017)

The credit offered by banks to Jordan, Qatar, Saudi Arabia, Egypt and Iraq economy has evolved since 2005 to 2015. Jordan showed a decline in the credits of GDP from 2005 to 2015 whereas Qatar and Saudi Arabia recorded a progressive increase in credits percentage of GDP. Moreover, the Egypt's credit percentage of GDP declined from 2005 and finally settled in 2015. Lastly, Iraq recorded a minimal change credits percentage of GDP, which seemed stable all through the years.

The growth in the exporters of the oil in the GCC countries is profoundly affected by the low prices of oil. The economic growth is therefore expected to drop down to 2.5 % from 3.7% in the year 2015. The growth in these countries has been spearheaded by oil and slowed down by oil prices (Ismal, 2012). The five countries found in the Middle East have diverse economic structures, but there are the factors that drag them behind financial wise. These countries depend on oil as their main exports. Most especially Iran and Iraq whereby their exports go up to 80% and 40% goes to Syria. Jordan and Lebanon, on the other hand, have diversified non-oil exporting economies.

States of the Gulf Cooperation Council (GCC) are the leading in Islamic banking since their banks are large and well developed. The economic share of these countries increased from 8%, 2004 to 39% in 2008. The recent worldwide financial crisis has greatly affected the financial constancy of the Islamic banking industry. The crisis has led to risk sharing between the borrowers and the banks. As a result of this, the banks have become susceptible to the adverse effects of the universal financial crisis (Green-Morgan et al., 2015).

There has been financial instability because of the decreased price of oil in the Middle East. Studies have shown that decrease of the oil prices in 2014 and 2015 does not affect the real estate investors. Moreover, the study showed that there was an insignificant rise in investors' deals during the end of 2014. The study reported that most GCC countries depend on income as the source of revenue. However, these nations do not generate revenue when they reach the breakeven point. Variation in

the price of oil does not affect the short-term investments but are likely to affect the long-term investments (Green-Morgan et al., 2015).

Table 3: Oil Exports in the Middle East in 2015

Country	Amount (billion $)	Percentage (%)
Saudi Arabia	133.3	11
Iraq	52.2	6.6
United Arab Emirates	51.2	6.5
Kuwait	34.1	4.3
Iran	20.5	2.6
Oman	17.4	2.2

The data above was retrieved from http://mecometer.com/topic/external-debt-percentage-of-gdp/

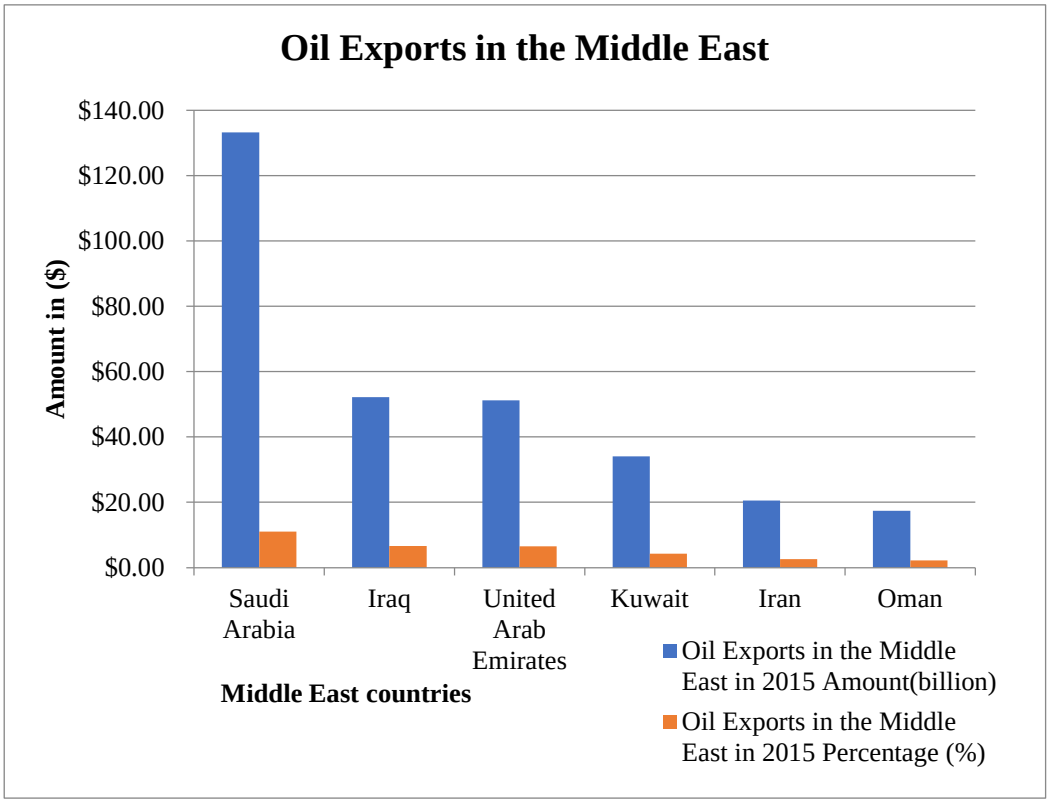

Figure 2: Oil Export in the Middle East

Private investors in the Middle East are the ones who are highly affected by the reduction of oil prices. Research conducted by Anecdotal, 2015, showed that investment had declined by 30%. Moreover, in November 2015, the personal investments on real estates had declined by 14% (Green-Morgan et al., 2015). The common factor with the Middle East countries was that their financial systems were muted. Their stock market declined as it lost approximately 50% compared to the other years (Varlı, 2013). Lebanon is the one who has shown different signs due to cross-border banking transactions with the global market. But they all have been shut out from the financial systems. The plumbing output and trade which has been combined with severe drought for three years consecutively is what has been the significant impact especially to places like Syria ("Special issue on Islamic banking and finance", 2010). The consequences proceeded to cause a decrease in the exports, the tourism, remittances, and the direct foreign trade that was taking place. The reports that have been made recently indicates that the slowdown in various sectors comes as a result of failing oil and agricultural prices, but the primary deficits come from the falling oil prices.

About those outcomes, the global downturn is anticipated to lower the current growth in the tourism sector and the direct foreign trade. The efforts that have been made are to reduce the remittances and the expatriate workers as the jobs lose mount in the GCC countries. The external demand has come as a shock because there has been a severe drought that has covered Syria, and it has extended up to the third year (Wajdi Dusuki, 2008). The drought has caused a lot of impact on the agricultural outputs and the price of the agricultural products.

The current account balances and the debts that have accumulated are the main contributors to the economic crisis. Countries like Lebanon and Jordan entered into the crisis aligned with high levels of fiscal and current account deficit to the GDP ratios. They ended up with the excess of 14% and with the economic shortfall compared to the GDP ratios, which was between the ranges of 8-10%. The difference came in between the two countries since Lebanon had a lot of debt compared to Jordan in the GDP ratios in the whole world.

Table 4: Debt % of GDP among Saudi Arabia, UAE, IRAN and IRAQ

Year	Saudi Arabia	UAE	IRAN	IRAQ
2005	13.0	16.7	6.61	22.0
2006	18.3	35.1	7.47	21.9
2007	13.9	35.1	8.09	18.7
2008	16.5	32.0	12.63	19.3
2009	15.6	51.4	10.52	25.4
2010	17.5	58.5	7.10	24.6
2011	16.9	50.3	7.03	26.6
2012	18.2	44.8	6.28	28.7
2013	16.0	42.9	3.70	26.8
2014	19.4	43.1	4.01	17.1
2015	20.8	41.5	3.39	21.5

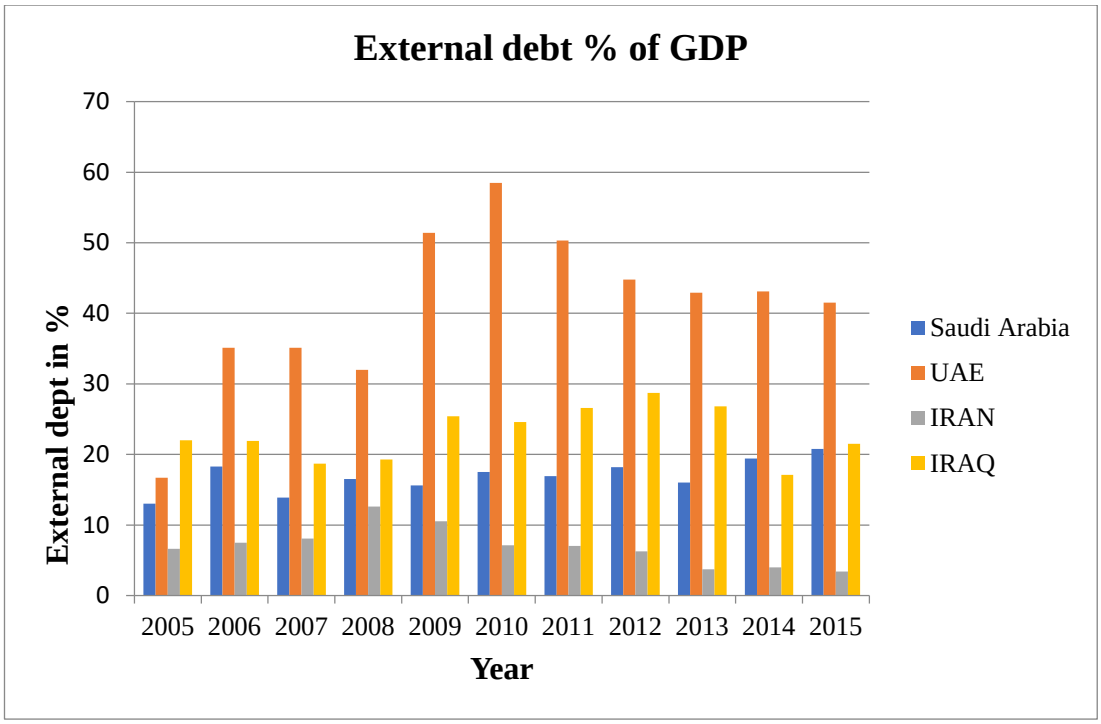

Figure 3: External Debt percentage of GDP among Saudi Arabia, UAE, Iran and Iraq

The Middle East countries indulged into the financial crisis with a challenging position because they had a long-lasting contract and difficulties in retracting commitments (Wajdi Dusuki, 2008). The first five Middle East countries have the same impact of the high rate of unemployment. Research has it that the speed of unemployment in some of the countries is higher as compared to the rate of unemployment in the developing countries.

The countries have low female participation in the labor market hence majority of people have long underestimated the rate of unemployment in those regions, which is more wanting. The youths also experience unemployment, which is increasing day by day due to the financial crisis. The subsidies are much higher and are reflections the social agreement especially in Syria and Iran. The inefficiencies in state-owned enterprises cause a burden on the public finances doing the same thing the subsidies

do. The political economy makes it difficult to implement reforms quickly such that they adapt and respond to the changing economy.

The depressed oil prices nailed most of the Middle East countries, which in turn has affected the export and the fiscal revenues. The deep integration in the world market especially on Iraq has led to a more direct control on the economic crisis in the financial crisis. The foreign investment and the flow of private capital are very little because of the economic crisis. Most of the Middle East problems rely on overdependence to the oil, and since the world demand for crude has been down for a while, there is an overlook of things as the oil demand might decrease. The oil price in the 2009 budget faced adjustment twice to fit the market price.

The early report that given by the IMF projections claimed that the Iraq's fiscal position would worsen in time due to the contraction in the oil revenues by 26%. In addition, it was likely that the country would be forced to do a wise forecast as it is projected to face a deficit of 17%. In 2009, Iraq was found to sell below $ 40 per barrel from the projection of $50 per barrel (Wajdi Dusuki, 2008). The situation worsened to a point of the government intervention whereby it promised to cut in the recurrent and capital spending to supplement the budget of oil prices would flourish in the price trend. The impacts of the crisis in the financial systems are very much limited, and one cannot exclude the significant impact on the real economy. The way forward to how the countries can mitigate the impact is left entirely to the high demand in the official sources both bilateral and multilateral. The government also is the primary solution solver, as it has to contribute to making sure that the current account deficit is still addressed like the deficit in 2009.

Table 5: Current Account Balance in ME countries (% of GDP, 2005 to 2015)

	Account balance in %			
Year	Saudi	UAE	Iraq	Iran
2005	27.42	12.37	-6.68	3.91
2006	26.28	18.33	4.12	12.27
2007	22.46	33.16	17.47	16.51
2008	4.88	24.5	21.61	34.08
2009	12.67	22.22	-1.01	20.19
2010	23.68	7.8	4.54	17.82
2011	22.45	6.05	13.67	15.5
2012	22.88	30.7	13.69	26.18
2013	23.01	44.3	14.01	9.31
2014	23.45	45.8	14.89	8.66
2015	24.55	33.2	13.89	8.99

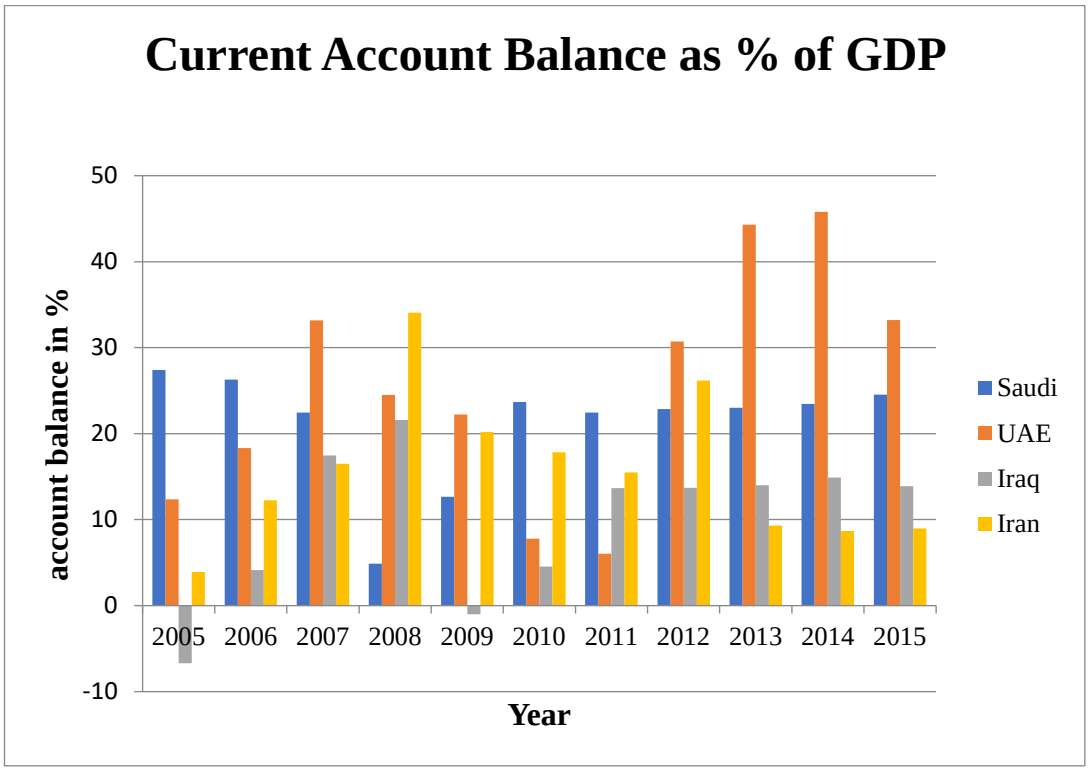

Figure 4: Current Account Balance as percentage of GDP among Saudi Arabia, UAE, Iraq and Iran

2.7 Structure of the Banking and the Impact on the Economy

The decline in the oil price is what has led to the decline of the economy in the Middle East. Low FDI is also the majority driver of the slow economic in that region. The assessment of the global financial crisis is mainly on the portfolio returns in the majority of the GCC capital markets that produce oil (Qfinance, 2009). The expectations on the extreme losses arise from the excessive stocks that influence the stock returns. Value at Risk and the expected shortfalls can be determined as the possible loss of an individual security system (Saxena, 2009). It, therefore, reflects the ability to incur a loss due to the investment of a portfolio over a period of time.

In the United Arab Emirates, loan provided by banks ranges from 1 to 1.15 % for fixed deposits. For people bearing Savings accounts, the loan ranges between 0.5 percent and zero. 9%. Home loans and general loans have an interest rate of 3.24 percent. In Iraq, the banking system is different from many countries in the Middle East and the reason for this is that this country's banking system is very flexible. The fixed deposit interest rate goes up to 3 percent at times and can go as low as 1 percent. The saving account interest rates are also very flexible going up to two percent and as low as 0.7 percent during economic trials. The general and home loans in this country are fixed at 5 percent, which has seen many people investing in the country.

Since from the earliest period, Islam has been able to establish a system that is free from interest to mobilize the resources to facilitate the economic productivities and the activities that the customer deserves. It is generated under a PLS system which implies that it undertakes the sharing of profits and losses. The Islamic tradition stays

dominant, and it fulfills the Islamic desire through their use of Sharia laws (Saxena, 2009). Sharia principles are vital as they can recognize the value that people have over money. The principles recognize the excessiveness in payment in business transactions as well as the prohibition of the same lending activities.

Islamic Sharia has a lot of prohibition whereby the restrictions are based on the contracts. The financial firms are not supposed to undertake any business that is not permitted by the Sharia laws. The law prohibits any investment in businesses like tobacco or weapons, alcohol, gambling, pornography and non-Islamic financial services. If the prohibited companies should be given a chance, then they will be required to donate an equivalent proportion of their distributions from the companies to charity so that the earnings can be purified from the prohibited earnings (Tavasci and Toporowski, 2010). The financial institutions of the Islamic systems have a supervisory board, which is comprised of the executive management so that the activities that happen in every firm can be managed by the sharia compliant. Islamic banks also face various restrictions regarding the use of derivatives and the different types of collateral. They are restricted and prohibited from using the interest-based assets and instruments or money for bonds and security. The religious beliefs that go hand in hand with all the activities of the financial institution are what induce greater loyalty and discourages default.

The banking systems can also increase risks due to some of the factors like for instance the complexity of the loan contracts, moral hazards incentives, and the default penalties. About insolvency risks, the relationship created between the customer and the bank could make the bank make more losses (Tavasci and

Toporowski, 2010). Since interest is not allowed in Islamic Banking, the institutions that compete with the conventional banks may be forced to narrow down their prices. The result of that decision could be subjected to the indirect interest rate. In the PLS method, the Islamic Banking would need to be careful in determining the profit or the loss sharing ratio for each project which can be complicated due to the difficulties in getting the characteristics of the qualified clients and the proposed business opportunities.

The revenue achieved is not always guaranteed since they cannot collect the collateral from the clients as they need to put more effort into selecting and monitoring to make sure that the customer that are obtained are not extracted by the borrowers (Kumar, 2014). When compared to other finance institution like the current operators, they are less competitive. The Islamic Banking also face lower marketing power compared to the others. The symptom of the decline of the economic development of the Islamic Banking in the Middle East was written down when the Muslim merchants lost ground to the Westerner and to the religious minority living in the midst rather than focusing on the global economic expansion. The role of Muslim in the region trade with the Western Europe had slipped to a level of insignificant. The Christian and the Jews in the Middle East (Kuran, 2002) have now dominated the internal commerce that is very much lucrative. The first systematic efforts that put forth were the Middle East commercial infrastructure, and it involved the effort to replace the Islamic institution with the westernized characteristics. A society that has commercial growth must have the legal support (Kuran, 2002). If two organizations with total different legal systems trade in the same relationship and they do not have the countervailing incentives, one of the

society will benefit more compared to others. The society that has efficient commercial institution will have to enjoy the benefit.

In the pre-modern Islamic world, the economic ventures often require cooperation from two or more individuals who carried out not through any cooperation but by family enterprises or through partnership. In this system, the merchant has permission to finance the enterprise, but the investor can participate in the work. Afterwards, the profits are split according to the formula that is negotiated ("Modern Middle East Authoritarianism: Roots, Ramifications, and Crisis", 2014). The merchant in this time was not reliable in the loss made unless he was the one who contributed to the initial investment. The business risks would only be limited to his labor.

Islamic partnership included the designation of the class of contracts under some considerations with the inclusion of variants. Some aspects of the commercial partnership would require some consideration. The system would need to put a geographical and temporal limitations on a mission, be able to restrict the people with whom the merchant could carry out with ("Modern Middle East Authoritarianism: Roots, Ramifications, and Crisis", 2014). In the modern institution, the Islamic partnership rules would be associated with the ways to economize the transaction costs.

The partnership law of the Islamic is very inflexible although it is an insistence that the principal is due to the consistency of the currency. As much as the rules are concerned, the burden lays much in the investors who may sell the merchandise at a low price.

The competitiveness of the world Islamic Banking reveals the shaping of the innovation with consideration of the future of the Middle East Islamic Banking. To start with, the Islamic banking assets with the commercial banks amounted to a total of $1.7t in the year 2013 (Ariff, 2014). The suggested growth rate over the four years has projection rate of 17.6%, but as much as this is so, there has been a slowdown in growth, which has been caused by significant developments. Some of the factors that have caused depreciating growth are:

i. The continuing economic and political setbacks in the frontier Islamic finance markets
ii. Large scale operational transformation in the consumptions focus and investment

The growth of the six markets is considered as the most important internationalization in the Islamic Banking. The markets are referred to as QISMUT, which stands for Qatar, Indonesia, Saudi Arabia, Malaysia, UAE, and Turkey (Salim, 2015). These markets are the major shareholders of the financial and intellectual capital of the industry that holds the next wave of development that goes across the new and also the existing markets of the Islamic Banks (Jan & Marimuthu, 2015). The banks have been serving 38 millions of customers annually. With the trade patterns shift, the RGMs are earning the favor while the QISMUT becomes the beneficiary.

Stocks and market ratio capitalization to the GDP is what is neglected in the Middle East banking. Stock markets are what provide the banks with the liquidity and the opportunities in which the portfolios are diversified. A large bank is what contributes

to the great promotion of economy and the reduction of cost in the gathering of information (Jan & Marimuthu, 2015). Major Banks offer the opportunity to a large menu of finance services to their customers, which intend mobilizes the funds more.

2.8 Profitability of Islamic Banking

The relationship between performance of the Islamic banks and the surrounding characteristics can be determined through various ways. The mix of returns and the risk of exposure should be pursued because the aim of most organizations is to maximize the value of the shareholder's equity and increase the bank profits (Shaikh, 2013). The management should set up the goals, costs and the strategies of the bank. Internal and external competitiveness has been viewed as the major key in the dimensions to plan on the performances.

The method that is used to measure performance whether internal or external is by analyzing the financial ratios, the market share, public confidence and the compliance that is done regularly (Shaikh, 2013). The measure of profitability and the operating efficiency is what is used for the performance whereby the capital ratio, the liquidity ratio, foreign ownership and overhead loans should be utilized as a proxy for the internal measures, macroeconomic indicator, financial structure, and the taxations.

When evaluating the bank performance, the assessment of the interaction between the environments, internal operations, and external activities should be done. Internal performance should be done in analyzing data of the accounting (Alharbi, 2015). Financial intermediaries can also be determined by assessing the performance and

the financial ratios. The primary factors that study has shown indicate that operation efficiency is what is determined in the determination of bank performance.

2.9 Bank Assets in Countries of Middle East

The use of Mudarabah model in making the depositor earn a return for the bank is also used to finance the party. The party which is financed can utilize the capital in the profitable enterprises and turn they agree to share the amount of the profit (Almanaseer, 2014). The model has the advantage since the liability side is flexible to the fluctuations in the asset side, bank creditworthiness and level of sharing risks (Wilson, 1987). The model is not always sufficient since it has got high informational necessities for calculation of incomes, expenses and turnover or forfeiture.

The information irregularity between the parties in a contract gives rise to the problem of the moral danger and the hostile selection, which result from high costs (Wilson, 1987). In the Mudarabah contract, the banks buy from the spot market and then equip the raw material that is needed by the capitalist and it sells it from the party on the delayed payment with a market up the price using its name. Mudarabah refers to the agency contract, and the Mudarabah is the marked-up price sale on the contract, the model can be applied to the wider set of actions, which includes scopes of both types of the financing whether high or whether it retains the strength.

Finance is associated to actual economic activities or the investment. Free credit does not earn revenue. The revenue netting credit was the only value that added to the real economic transaction from either the leading or the Murabaha contract or any other contracts, it acted as a basis of constancy for the global economic systems (Zar Rokh,

n.d.). The profit sharing takes place between the individual banks and savers that stabilize the bank and increases its monitoring.

The theoretical model of the Islamic banking is almost the same as universal banking. This is because the model is not limited to the extension of credit only. It is involved in buying and selling shares in other businesses (Khan & Bhatti, 2008). Given the environment of Islamic finance strictness into the commercial banks and the investment, which is not in an optimal arrangement most business, models have been used to consider the performance of the banks and their operations (ZarRokh, n.d.). The business models include an investment of the banks, retail, and cooperative banking, a combination of commercial and investment banking among others. The nature of the Islamic Banking is quite different compared to the other conventional banking. Factors that are significant for the growth of the financial sector is what can be used to provide Islamic Banking growth and financing.

Chapter 3

RESEARCH DATA AND METHODOLOGY

3.1 Introduction

In this study, secondary sources are used as a source of data. The literature was acquired from authentic secondary sources, which included mainly the data from World Bank and International Monetary Fund (IMF). Collected data were then coded, processed and analyzed by use of the Statistical Programs in a bid to meet the various objectives of the study. Quantitative determinations were made using various methods such as: the arithmetic mean, range, regression, and correlation in a bid to attain the objectives and goals of this study. Data representation was subsequently accomplished through use of text, tables, flow charts, and graphs to show the interrelationships of various variables.

3.2 Research Design

Descriptive design was applied in this study (Myers, Well, & Lorch, 2013). In this respect secondary data of the selected Middle East countries were collected. In addition, journals, and other publications (such as books) were also used.

The study mainly dwelled on evaluating the trend in credits provided by the banking sector to the private sector in the selected countries in relation to change in oil prices, GDP and deposits. .

3.3 Methods of Data Collection

The effects of worldwide financial crisis in banking sector was assessed in a stepwise approach (Myers, Well, & Lorch, 2013). The initial step entailed the selection countries that were considered in the study. The second step was looking up and acquiring information and data from previous projects and relevant literature. The information covered several quantifiable indicators which are related to the finance and banking system of the Middle East especially the details of the credits and details of the oil prices.

3.4 Research Sample

The research sample consists of five selected Middle East countries. The countries studied are listed in the table below.

Table 6: Selected Middle East Countries

Country
Iraq
Qatar
Jordan
Egypt
UAE
Saudi Arabia

The chosen sample represents countries producing the most of oil within the Middle East and 67 percent of global oil. The study aims to analyze the impact of oil price change on the credits given by the banking sector., with the financial crisis, the loans is observed to be declined by 60 percent with only a few private sectors accessing credit facilities. An analysis of the regression trend show that increase in oil process affected the amount of credit facilities disbursed to the private sector with most

banks shying away from giving out loans and credit to individuals and private businesses. In comparison with changes in oil prices, it is clear that the profitability of banks is greatly affected by oil prices as most banks realized only a third of their usual annual profits. Generally, studies indicate that oil prices are a vital factor in business and variables within the Middle East economies. From the economic performance of these countries, it is evident that the growth and development rate is stronger and stable during upturns as compared to during financial crisis. It thus shows that financial cycles and strengths of these banks grew stronger for the period of oil price upturns instead of during downturns more so during global financial crisis.

3.5 Variables

In this study, gross domestic product (GDP), total deposits (DEPOSITS) and the oil prices (PETP) are the independent variables (X-axis). The dependent variable (Y-axis) is the net domestic credit to private sector by the banks (DCREDIT).

The oil prices in this case formed a good indicator as oil main source of revenue for the selected countries in the region. A trend of the oil prices would help indicate the cash flow within the Middle East economies. Total deposits indicate the amount of total savings in the banking sector. This indicator will show how much funds are available in the banking sector as source for lending. As for GDP, it will capture the economic growth for the studied period. It will also show the effect of the global financial crisis on the economies of the selected Middle East countries. Overall, it is expected that these explanatory variables (independent variables) will enable us to explain the behavior of bank lending in the selected countries for the last 10 years including the global financial period.

3.6 Descriptive Analysis

An approach, which is occupied for the qualitative analysis of the data, is meta-analysis that acquired from some researches regarding the influences of global financial crisis on Islamic banking and finance (Mirzaei & Moore, 2016). The data was then analyzed and presented such that addresses the objectives of this study efficiently. In this case, regression models were applied. Other quantitative methods such as descriptive statistics such as arithmetic mean, range, and correlation were used to measure the central tendency and level of dispersion.

3.6.1 Measures of Central Tendency

Measures of central tendency (also referred to as averages) have been used widely in the analysis of data. In this study, the arithmetic mean was applied. The arithmetic mean of a series of related values was arrived at by finding the sum of the values and then dividing the sum with the number of values (Myers, Well, & Lorch, 2013). It was used in quantifying different factors incorporated in the study, among them: the trend in the oil prices especially in the previous half decade; and the trend of investments in relation to the slump of the oil prices and the global financial crisis.

3.6.2 Measures of Dispersion

In regard to the importance of a quantitative summary, measure of the variation spread, or scatter of data around the average value in statistical analysis, a measure of dispersion was significantly used in this study as a direct supplement to a given average (Myers, Well, & Lorch, 2013). The major measure of dispersion used in this study was range. Range was used to show the variation between the largest and the smallest values in a given series. It was thus calculated by subtracting the highest and the lowest values in a given series. Range of the oil prices in the time period of the

last half decade and that of the investments to mark the trend in the investments over the same period were determined.

3.6.3 Descriptive Statistics

Table 7: Descriptive Statistics (US Dollars, 2005-2015)

	N	Minimum	Maximum	Mean	Std. Deviation
Credits as % of GDP	55	1.55	91.6	40.4	24.7
Oil prices in US$	55	49.5	109.5	81.2	21.2
Deposits as % of GDP	54	8.3	105.9	52.1	30.3
GDP (billion US$)	55	12.5	756.3	215.8	203.1

The mean of the oil prices over the time is $81.2, standard deviation of 21.2, are ranging between $49.5 and $109.5. Of the credits as percentage of GDP, the overall mean is $40.4, standard deviation of 24.7 and range between $1.55 and $91.6. For the Deposits as percentage of GDP, as it is stated in table 9 mean is $52.1, standard deviation is 30.3 and range between $8.3 and $105.9. Lastly, for GDP in table 9, the mean is $215.8 billion, standard deviation is 203.1 and range between $ 12.5 and $ 756.3 billion.

3.7 Model and Regression Analysis

This research uses the linear regression model with one dependent variable and three independent variables. The regression equation aims to explain the effect of the independent variables on the dependent variable. A simple linear equation model can be expressed as follow:

$$Y_{it} = \alpha + \beta\, x_{i,t} + \mu_{i,t} \qquad (1)$$

Where:

Y_{it} represent the dependent variable (i) at time (t) in the model

α represents the intercept of the equation

β represents the coefficient

X_{it} represent the independent variable (i) at time (t)

μ represents the error term.

This study is not based on the simple linear regression model, which is based on one dependent variable and one independent variable. Instead, it is based on the multiple regression panel data model since it has more than one independent variable. The following model is used in this study for domestic credits by banks:

$$DCREDIT_{i,t}= \alpha +\beta_1 PEPT_{i,t}+\beta_2 DEPOSITS_{i,t}+\beta_3 GDP_{i,t} +\mu_{I,t} \quad (2)$$

The formula above shows that $DCREDIT_{i,t}$ is a dependent variable and is directly influenced by change in $REPT_{i,t,}$ change in $DEPOSITS_{i,t}$ and change in $GDP_{i,t.}$ This means that an increase in the independent variables translates to increase in $DCREDIT_{i,t}$ whereas a decrease in the independent variables translates to a decrease in $DCREDIT_{i,t.}$

3.8 Hypothesis

The proposition of the current research would assist in involving and concentrating efforts to a precise objective in facilitating good outcomes. The null suggestions of the research indicate that reduction in oil pricing has an impact on credits given by the banking sector.

H_1: Global financial crisis and reduced GDP growth in Middle East countries have negatively affected the bank lending in the region.

H_2: The fall in oil prices has adversely affected credits given by banking sector in the selected Middle East countries.

3.9 Data Analysis and Technique

A regression analysis has been carried out using the secondary data collected from World Bank sources. Additionally, the correlation between the sets of data was also done.

In the pooled regression model, all observations are brought together in order to run the regression. Here, the cross section and time series nature of the data are ignored. The main problem with this method is that, it does not distinguish between the various companies used for the study. It assumes they have the same characteristics. In other words, by pooling the data we assume there is no heterogeneity among companies used. This does not exist in real life situations (Sayed Hussein, 2014).

In fixed effect model, the method allows for heterogeneity among companies used for the study by allowing each company to have its own intercept value. The fixed effect model is suitable to be used when it is believed that, there are omitted

variables, which correlate with the variables used in the model. This model is used as a means for controlling bias for the omitted variables. The model is referred to as fixed effect because of the fact that, even though the slope may not be the same across the various firms, the slope does not change with time. This means that, whatever effects the omitted variables have on the subject at one time, the same effect will be felt at a later time, (Williams, 2014). This model is designed to examine the cause of changes within companies that cannot be explained by constant time specifications.

On the other hand random effects model assumes that all entities have a common mean value for the intercept. Random effect is usually considered to be more efficient because they produce narrower confidence interval than fixed effect model. The random effect model should be used if there is no relationship between the omitted variables and the explanatory variables. By doing so, unbiased estimates of the coefficients are produced, all the available data will be use, and the standard errors will be minimized. The random effect is equally suitable for models whose subject does not change across time (Williams, 2014).

In order to decide which method will best suit the analysis of your data, Baltagi, (2005) suggest that the Housman test be applied. This test tests if the error term is correlated with the independent variable i.e. if the coefficients estimated from the model are statistically significant. The test is usually applied on the results from the random effect model. The null hypothesis of this test assumes that the random effect model is suitable while the alternate hypothesis assumes that the fixed effect model is suitable.

If the probability Value is less than 5 percent, we reject Ho implying the fixed effect model is appropriate; otherwise, we do not reject the null hypothesis.

This chapter focused on the data and methodology used for the study, the following chapter is based on the analysis of the results already highlighted in this chapter.

Chapter 4

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

In this chapter of the thesis, the collected data will be analyzed using the methods defined in the previous chapter. This includes a correlation and regression analysis. The results will be presented and explained.

In order to estimate the impact of bank lending in the selected Middle East countries, we use data from World Bank and IMF sources for Egypt, Iraq, Jordan, Qatar and Saudi Arabia. The period of the study is from 2005 to 2015. The data includes 55 observations.

4.2 Hausman Test Results

In order to decide which method will best suit the analysis of data, Hausman test was applied. The results reveal that the random effect model is appropriate for the model used in this study. The probability value is significantly greater than 5 % (0.63 for total credits). As such, we fail to reject the null hypothesis, implying that random effect model is appropriate for this model.

Table 8: Housman Test Results

Variables	Chi sq. statistic	Chi sq. d.f.	Probability
Credits	1.73	3	0.63

4.3 Correlation Analysis

Correlation analysis describes how strong a relationship could be between two variables (Muhammad, Shah, and Islam 2014). In order to test the multicollinearity problem in the sample, we carry out a correlation analysis. By multicollinearity, we mean a situation whereby two or more independent variables are correlated with each other. Only the Y variable should be dependent on the X variables.

The presence of multicollinearity among variables in a model may have the following effects;

- There will be an inflation effect on the values of variances and standard errors.
- The size of the regression coefficient results may not be same as the expected results.
- The signs of the actual regression coefficients may be different from what is expected.

This problem may be resolved by adding more observations, dropping one of the independent variables or by developing a new proxy through the combination of the correlated variables (Gujarati, 2009). The Pearson correlation coefficient matrix for this study is presented bellow;

Table 9: Pearson Correlation Coefficients

	DCREDIT	PETP	DEPOSITS	GDP
DCREDIT	1.00			
PETP	-0.12	1.00		
DEPOSITS	0.85*	-0.05	1.00	
GDP	-0.53*	0.20	-0.64*	1.00

* Correlation is significant at the 10% level, ** Correlation is significant at the 5% level, *** Correlation is significant at the 1% level

The results of the correlation presented in the above table shows that there exist no multicollinearity between the explanatory variables as all the coefficients are less than 0.8 (Lewis-Beck, 1993). The results also show that there exist a positive and significant correlation between deposits and credits. This implies that as the deposits in the banking sector increases, bank lending to the private sector increases. On the other hand, the relation between the GDP and credits is significant but negative. Growth in the GDP does not lead to increase in the lending of the banking sector. The analysis finds negative relation between petrol prices and bank lending but it is insignificant.

4.4 Regression Analysis

The results for the regression analysis for Credits (lending) as introduced in chapter 3 are presented in table below. The R Squared value for this model is 0.69. This means 69 percent of Credits can be explained by change in petrol prices, credits and GDP. Wald chi2 statistics show that all coefficients are jointly (statistically) different from zero.

Table 10: Credits Regression Model for the Time Interval from 2005 to 2015

Variables	**Coefficients**	**Standard error**	**Probability values**
C	1.756***	0.28	0.00
LNGDP	-0.068***	0.01	0.00
DEPOSIT	0.811***	0.05	0.00
LNPETP	-0.002	0.02	0.88

R-Squared=0.69 Wald chi2=298.98, Prob (Wald chi2)= 0.0000, *, **, *** show that coefficients are significant at 10 percent, 5 percent and 1 percent respectively.

According to table above, the credit regression model shows that, there is a significant ((α=1%) relationship between GDP and Credits. The GDP coefficient is -0.068, implying that growth in the GDP affects bank credits to private sector negatively. This may be explained by the fact that credit demanders in the selected counties generate sufficient funding as the economy grows and need for borrowing from the banking sector declines. The results are not in line with the set hypothesis.

The other important variable, petrol prices, has also been regressed for credits. The results show that there is no significant relation between petrol prices and bank lending in the selected Middle East countries. Thus, the price of oil, which is a very

important source of revenue for the considered economies, has no significant relation with bank lending. Based on this result, the hypothesis is neither in line with the oil prices.

Banks main source providing loans to their customers are the deposits. In this study, the results of the regression show that there exists a significant and a positive relation with the deposits and bank credits to private sector. The coefficient of the deposits is found to be 0.811, implying that one percent of increase with deposits will lead to increase in the bank lending by 81% of the increase. This shows that lending in the selected countries are very much determined by the availability of savings in the banking sector.

4.5 Discussion

4.5.1 Comparison with the previous studies

Previous studies conducted on the impact of economic crisis indicate a significance difference between the global financial crisis and the functioning of the banking systems. World Bank indicates that the banking systems in Washington DC experienced ripple effects following the 2008 economic crisis. The operations of the World Bank were also affected lowering its forecast growth to 1.4% in high-income countries ("Data & Research - Turbulent Year Ahead for Global Economy", 2016).

4.5.2 How Oil Prices affect Banking Investment

Poghosyan et.al (2009) argues that decline in oil prices affect the banking system directly. A shock in oil prices affects the banking investment operations hence lowering its profitability. The banking systems are affected by the decline in the oil prices due to excess liquidity in the banking system and increased oil-related lending. Since most of the banks lend to the private investors, their profitability is affected

when fiscal spending experiences hardships. A decline in oil prices may cause lower domestic demands, which in turn cause lower bank confidence, lower nonperforming loans and lending (Poghosyan et.al, 2009). In this study, we find no significant relation between the oil prices and the bank lending.

4.5.3 A comparison of the trend in oil prices and the trend in investments in the Middle East

Different nations in the Middle East have been deliberated in this article have different economic organizations. For instance, Egypt produces 80% of the oil exported while Iraq produces 40% of the world's oil in 2008. Countries such as Jordan and Israel have diversified in other non-oil exporting activities like farming. These countries are affected by the financial crisis, which has led to decline of the economic indexes. Investors have shifted to other countries where they are likely to gain higher profits.

The regression analysis shows that there exists no significant relation between oil prices and credits. In other words, the trend in credit (lending) given by the banking sector is not significantly affected by the oil prices. In this case, slump in oil prices in indicatively not a determinant factor of the credits in the selected Middle East countries.

Chapter 5

CONCLUSION

5.1 Introduction

This contains the deductions and the commendations developed in this research and assessment of the research objectives and the research questions formulated. A general conclusion will be drawn based on this study, which will address the performance of credits provided by the Banking system and suggest a way forward as per the findings. The recommendations section will mainly address the improvements that future researches should consider when carrying out a typical research.

5.2 Conclusion

The main objective of the thesis has been to assess the impact of the global financial crisis on the bank lending in the region. In this respect, data on credits provided by the banking sector, GDP, petrol prices and deposits of the selected Middle East countries have been gathers from World Bank sources.

From this research, the banking system of the Middle East has clearly not varied greatly since the dawn of global financial crisis. The credits were seen to increase annually in most of the banks. This indicated that among other factors influencing the rate of bank lending, global financial crisis has not adversely affected the rates of investment. In other words, the credits have not been affected significantly which

may be explained by the fact that authorities adapted measures to counteract global financial crisis.

Also from the study, it is clear that the oil price has no significant effect on bank lending. This implies that the supply of loans by the banking sector in the region is not affected by the change in oil prices.

On the other hand, the GDP of the Middle East countries, considered as another, has showed to have significant but negative relation. A growth in GDP has found to have a negative impact on the lending of the banking sector. A growing economy would imply more credits to the economy for financing the relatively more activities. In the case of selected Middle East countries, the results show the opposite. This may be explained by the fact that growth in GDP provides private sector enough funding and need for borrowing declines.

Further, it is evident that in most of the nations in the Middle East, there is growth in the financing power of the banks. This reflects a favorable banking environment. In other words, the banking sector has improved even in the aftermath of global financial crisis.

To sum it all up, the research indicates that bank-lending (credits) is significantly not affected by the oil price changes. In addition, the analysis shows that there is a negative significant effect of GDP on bank lending. The analysis has clearly showed that the performance and the lending capacity of the selected Middle East countries are very much determined by the amount of depots in the banking sector. As the

deposits increase, banks find more financial sources to give as loans to the private sector.

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