Nottingham Trent University

Nottingham Business School

Doctor of Business Administration

Assessing the Effect of Foreign Direct Investment and Foreign Trade on the Competitiveness of Arab Economies: An Econometric Approach Using Panel Data

Document Five

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To:

The souls of my Father and Mother, I hope they are with me now

My wife, Nourelhoda

My son, Mostafa

My daughter, Nouran

My supervisor, Prof. Rob Ackrill

Acknowledgements

On doing my DBA I could not forget the people who helped me, to reach this point, and make it possible to finish my thesis. First of all I would like to thank Professor Rob Ackrill, my supervisor, who has guided me during my DBA journey. I will not forget his favour as he was always beside me with his support whenever I need his help. Also I will not forget the efforts of Dr. Zhongmin, my co supervisor, specially his guidance and support in the econometric part.

Moreover, I would like to present this project to the souls of my father and mother, they seized every opportunity in my life to support me. I will never forget the last words of my father, before leaving the life in May 2014, Mohamed keep working in your doctorate and do not quit until completion. Also I would like to thank my wife and my kids for continues support and encouragement. During my journey, I could not spend the whole time with them, and many times they went out without me. Thanks a lot my wife, Nourelhoda, and son &daughter, Mostafa and Nouran.

Finally, I would like to thank my friends and colleagues, who encouraged and supported me always and gave me inspirations during my DBA journey.

Assessing the Effect of Foreign Direct Investment and Foreign Trade on the Competitiveness of Arab Economies: An Econometric Approach Using Panel Data

Abstract

In spite of the Arab region having a comparative advantage in natural resources and other factor endowments such as labour and capital, the region's competitiveness ranking is weak when judged globally. In particular, inflows of foreign direct investment and foreign trade volumes are not commensurate with what would be expected for this group of countries, given their factor endowments and comparative advantage. The purpose of this thesis is to analyse the low competitiveness rankings obtained by Arab countries, and to analyse the viability of improving this competitiveness by enhancing foreign trade and foreign direct investment in the region. This is a topic that, to the best of our knowledge, has not previously been researched at all for Arab countries in the empirical economics literature.

First, we set out the conceptual underpinnings of competitiveness and the ways in which a country's competitiveness is measured in practice. We then apply Generalized Method of Moments (GMM) in a dynamic panel data model with fixed effects, in order to estimate the effect of foreign direct investment and foreign trade on the competitiveness of Arab countries. The dataset covers 17 Arab countries, spanning the period 1998-2009. We adopt panel data methodology, by applying. The results of the empirical model reveal that FDI inflows and foreign trade both have a positive impact on the competitiveness of Arab economies. In addition, control variables reflecting macroeconomic management in Arab countries such as domestic credit to the private sector, corruption, inflation, labour productivity and nominal exchange rate are found to be significantly and positively related to competitiveness. On the other hand, interaction terms for FDI and trade with economic freedom were found to be insignificant. We then offer policy recommendations, based on these findings.

Key words: comparative advantage, factor endowments, foreign direct investment, foreign trade, competitiveness, panel data, Generalized Method of Moments (GMM), dynamic panel data model, fixed effects.

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Introduction and motivations

Competitiveness, as a macroeconomic concept, is rarely mentioned in economic textbooks, in spite of its familiarity in general terms. Economics textbooks typically refer instead to comparative advantage. Competitiveness can be derived from various economic theories, but the dynamics of the competitive process are not considered by these theories. Therefore competitiveness remains an ambiguous notion.

There are, as we show later, many definitions of competitiveness; and several indicators available to measure the competitiveness of nations. These come from the work of international and private organizations such as The World Economic Forum (WEF) and The Institute for Management Development (IMD).

In this thesis we focus on the countries of the Arab region. In spite of these countries having a comparative advantage in natural resources and other factor endowments, the global competitiveness ranking of these countries is weak in most cases. In addition, the inflows of foreign direct investment and foreign trade volume are not commensurate with their factor endowments and comparative advantages, compared with other regions globally.

The Arab region is uniquely located at the crossroads of international trade routes. Moreover, it has a comparative advantage in natural resources such as oil and gas. Arab countries produce about 30 % and 17 % of the worlds crude oil and gas, respectively. Moreover, crude oil and gas reserves in the Arab region account for 55 % and 28 % of global totals. The region is also endowed with a young labour force and one of the highest population growth rates in the world (AMF, 2016).

This paradox – of rich resource endowments but relatively low international competitiveness – motivates the present study. In particular, the primary research question is asked: "can Arab economies' competitiveness be boosted by improving foreign trade and foreign direct investments (FDI)?" To answer this question, we provide empirical analysis of the relationship between competitiveness, foreign trade and FDI for Arab economies. To help with this analysis, we consider the following: "to what extent can macroeconomic policies enhance the competitiveness of Arab economies?"; and "to what extent have macroeconomic policies improved the investment climate in order to attract more FDI and increase exports of Arab countries?" In our empirical econometric specification, we then pose four specific research questions:

- What is the relationship between competitiveness, FDI and foreign trade in Arab countries?
- Can FDI flows affect the competitiveness of Arab countries?
- Does foreign trade affect the competitiveness of Arab countries?
- Are there any other factors that could affect the competitiveness of Arab countries?

The answer to these questions will enable us to answer our primary research question.

We base our empirical analysis on a panel-data econometric model to explore the relationships between competitiveness, foreign trade and FDI for Arab economies, using data for 17 countries over the period 1998-2009. In our DBA journey, we have not found any other example of this kind of empirical work. We start to plug this gap, by studying perhaps for the first time in the academic literature the effect of macroeconomic policies on the competitiveness and investment climate in Arab countries. The technique we adopt is Generalized Method of Moments (GMM), in a dynamic panel data model, with fixed effects. Panel data models are the most appropriate technique for regional modelling, (Melecký and Nevima, 2011).

The results of the empirical model reveal that FDI inflows and foreign trade have a positive impact on the competitiveness of Arab economies. In addition, control variables reflecting macroeconomic management in Arab countries, such as domestic credit to the private sector, corruption, inflation, labour productivity and nominal exchange rate, are found to be significantly and positively related to competitiveness. These findings, obtained using GMM, also confirm the results of the Generalized Least Square Estimator model (EGLS) allowing for fixed effects, which was adopted in Document 4 of our DBA project. We note also that our exploration of interaction terms, for each of FDI and trade with economic freedom, generated results that were statistically insignificant.

We start our thesis by introducing the role of macroeconomic policies and structural reform policies in support of the competitiveness of Arab economies. In Chapter 2 we show the effect of macroeconomic policies on the current competitiveness position of Arab countries. The third chapter provides an overview of the concepts and theories underpinning the idea of competitiveness. Chapter 4 offers a review of the literature on the role of FDI and foreign trade in enhancing the competitiveness, in general and specifically for Arab countries. Chapter 5 presents our quantitative analysis using the GMM model. The last chapter offers conclusions and policy recommendations.

Chapter 1

Trade, Foreign Direct Investment and Competitiveness in Arab Countries: Background and Policies

This chapter aims at clarifying the role of macroeconomic policies and structural reform policies in support of the competitiveness of Arab economies. According to WEF (2015), there are three factors that shape competitiveness. These factors are stable macroeconomic conditions, which comprise the functions of fiscal, monetary, financial, and exchange rate policies in supporting competitiveness. The second factor is business-environment policies and regulations which include goods, services, capital and labour markets. The third element includes foreign economic policies which locate the country, region, and city in the global economy through foreign trade, finance, foreign direct investment, foreign workers and tourism as part of groups of economic activity related to global value chains.

We address each of those three factors in this chapter. We will start the first part by introducing the macroeconomic performance and the policies adopted over the period 2000-2015, in order to improve the competitiveness of Arab countries. The aim of this part is to demonstrate to what extent the comparative advantage of natural resources is reflected in the macroeconomic performance of the Arab region during the last 15 years, in light of the increasing role of oil and gas in Arab economies. In addition this part will highlight the role of macroeconomic policies in mitigating the effects of fluctuations associated with the international oil market, and build on other

factors to increase the competitiveness of the Arab economies, notably in attracting more FDI inflows.

The second part will consider the policy reforms adopted to improve the business climate in Arab countries. Then we will look at the FDI performance in Arab countries and will clarify its impact on the economic performance and competitiveness of Arab economies since 2000. The last part of this chapter will include an analysis of the trade performance of Arab countries during the last 15 years and its effect on economic growth and competitiveness in the Arab region.

1.1. Macroeconomic performance and policy reforms adopted in Arab countries

The Arab region is characterized by a unique location among world countries, at the crossroads of international trade routes. In addition this region has a comparative advantage in natural resources such as oil and gas. Arab countries produce about 30 % and 17 % of world crude oil and gas production. Crude oil and gas reserves in the Arab region account for 55 % and 28 % of world reserves, respectively. In addition the region is endowed with a young labour force and high rate of population growth, one of the highest growth rates in the world, (AMF, 2016).

In spite of these advantages, the region is highly vulnerable to changes in oil market prices, in addition to fluctuations in external demand which constitute about 40 % of total aggregate demand, (AMF, 2016). In addition this young labour force lacks

the required skills and talents to cope with new technology. Moreover the majority of investments are directed to the oil sector, which restrict the diversification required by Arab countries.

Arab economies[1] have witnessed a range of global and regional developments and transformations that have affected the economic performance of this group of countries over the period 2000-2015. During these 15 years we can distinguish between two periods, each of them characterized by a major set of factors that pushed macroeconomic performance indicators for the Arab countries in different directions. The first period spans the years from 2000 until 2008, while the second period covers the years from 2009 until 2015. During these two periods, the major economic indicators for the Arab Countries (economic growth, inflation, the general budget balance, the current account balance) took different paths, affected by international and regional economic conditions.

In the first period, 2000-2008, although these years witnessed at the beginning a slowdown of global economic growth due to lower global demand levels arising from the bursting of the dotcom bubble, the September 11 attacks and other factors, the policies adopted during that period, especially expansionary monetary policy, contributed to stimulate global growth from the beginning of 2003, and recovery during the remaining years of this period. The recovery of the global economy also had positive repercussions on Arab economic growth. The global recovery was seen in the positive performance of the European, United States and Japanese economies.

[1] Include: Jordan, U.A.E, Bahrain, Tunisia, Algeria, Djibouti, Saudi Arabia, Sudan, Syria, Iraq, Oman, Qatar, Comoros, Kuwait, Lebanon, Libya, Egypt, Morocco, Mauritania, and Yemen.

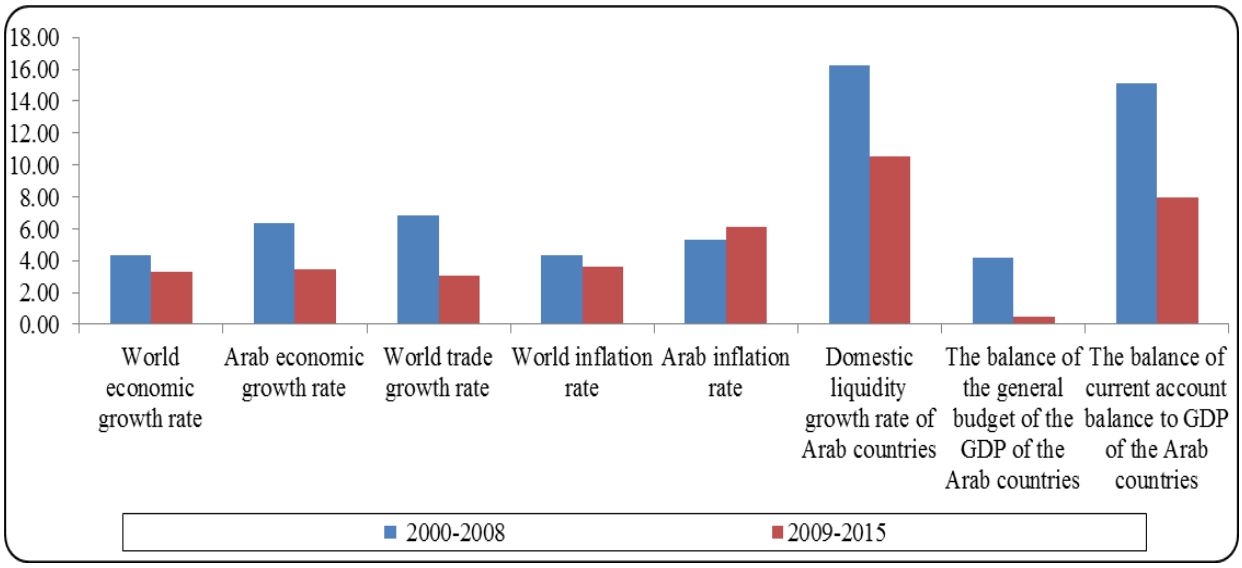
In addition, this recovery was supported by the continued growth of developing countries, in particular China and India, which achieved annual growth rates of 12 per cent and 8 per cent respectively during that period. As a result, international trade grew by nearly 7 per cent annually. This is mainly reflected in the performance of developing countries' exports, especially electronics, textiles and ready-made clothes from Asian Countries. FDI inflows to developing countries also witnessed a remarkable increase of 22 per cent annually. These developments helped to raise the growth rate of the global economy to 4.3 per cent, on average, over the period 2000-2008 (IMF, 2016).

All the factors referred to above reflected positively on the economies of Arab countries, which also benefited from policy reforms during this period, to achieve economic stability and market liberalization, to ensure an efficient distribution of resources, with increased productivity and competitiveness. These policies helped to raise the growth rate of the Arab countries to 6.3 per cent annually, on average, over the period 2000-2008 (AMF, 2016). Indeed, there was a high correlation between the growth rate of Arab economies and the growth rate of the world economy. The correlation value[2] between the two variables reached about 0.70, which indicates a strong positive link between the Arab economy and the World economy, (Annex Table 2/1 & Figure 1).

[2] Calculated using IMF and AMF data.

Figure (1)

Economic indicators for Arab countries compared to the world



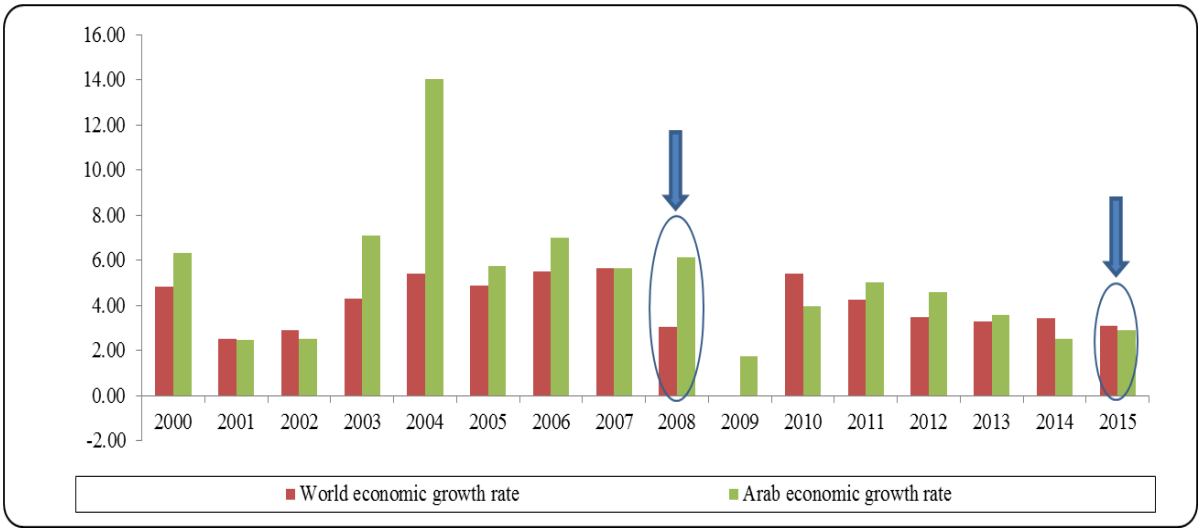
Source: Annex Table (2/1)

This strong correlation can be attributed to a number of factors. The key factor is the importance of the external demand component in aggregate demand in the majority of Arab countries. On the other hand, there was a limited role for some economic policies adopted by Arab countries to mitigate the domestic impact of fluctuations in the international environment. This limited role is attributed to the lack of independence of monetary policy due to the adoption of a fixed exchange rate regime in some Arab countries; and certain fiscal policy choices. These factors affected the ability of the Arab economies to absorb external shocks and economic fluctuations.

Over the second period, 2009-2015, Arab countries have been affected negatively by many factors. These include weak global economic growth, reflecting the impact of the global financial crisis and the resulting financial turmoil inflicted on world

markets. Despite the unprecedented stimulus policies that have been adopted to overcome the negative fallout from the global financial crisis, which contributed to help the global economy to overcome the recession that occurred in 2009, the consequences resulting from the crisis represented by high public and private debt levels led to uncertainty and reduced consumer and investor confidence levels in many developed countries. This is reflected in the growth rates of developing countries and emerging market economies, especially those that suffer from internal and external economic imbalances. In total, these developments have worked to reduce the growth rate of the world economy to 3.3 per cent on average during that period (IMF, 2016).

Figure (2)



Source: Annex Table (1/1).

Habibi (2009) stated that the global financial crisis affected the economies of Arab countries through various channels of transmission, including FDI inflows, oil prices, tourism and global demand for the non-oil exports of Arab countries. All of these activities registered a decline during 2009. He also added that the revenues of Arab oil exporting countries declined, although they were able to maintain their

development projects because of their large sovereign funds. The North African Arab countries however suffered from the decline registered in exports, tourism and remittances owing to the severe recession in Europe, the main trade partner of these countries. In response to these economic developments, North African Arab countries introduced economic stimulus packages to strengthen domestic demand, hence to minimize the impact of the crisis on their economic performance. These policies included providing credit support to banks, and fiscal stimuli such as increasing government spending.

The impact of the global financial crisis on Arab countries varied according to their economic structure, notably the level of development of their financial and banking sectors, and the degree of openness to the global economy. The majority of Arab stock market and banking sector indicators declined sharply. The decline in the stock markets of Gulf Cooperation Council countries (GCC)[3] led the decline in the stock markets of Arab countries overall. Dubai registered the highest level of decline, of 60 %. Moreover, the demand for real estate was affected heavily (Soufan, Abdul-Khaliq and Abu Shihab, 2012). In the same context, Gressani and Kouame (2009) divided the Arab countries into four groups in order to identify the channels of transmission of the global financial crisis. The first group was countries with strong economic links to GCC, such as Lebanon, Jordan, Yemen and Egypt (partially). The effects on this group were through lower tourism, remittances and FDI inflows from GCC. The second group were those oil exporting countries characterized by large social needs and weak fiscal positions, despite significant oil revenues, such as

[3] Gulf Cooperation Council (GCC) comprises: Kingdom of Saudi Arabia, United Arab Emirates, Bahrain, Kuwait, Oman, and Qatar.

Algeria, Libya, Iraq, Syria and Sudan. The third group included countries with strong economic relations to Europe, such as Morocco, Tunisia and Egypt (partially). These countries suffered from the severe effect of the crisis on demand for their exports, lower tourism revenues, remittances, and FDI inflows. The last group were the GCC countries which faced the crisis with sound fiscal and external positions. They were able to deal better with consequences of the crisis. The impacts on this group transmitted through lower oil exports due to lower prices and lower global demand.

Furthermore, the economic performance of Arab countries was affected from the beginning of 2011 by the developments and unfavourable internal conditions resulting from the Arab Spring [4] revolutions. These developments negatively impacted the Arab countries which witnessed these dramatic changes, leading to a contraction of their Gross Domestic Product (GDP). As a result, production fell and the proceeds of foreign exchange declined markedly in key sectors such as oil, industry, agriculture, tourism, exports and FDI flows (AMF, 2012).

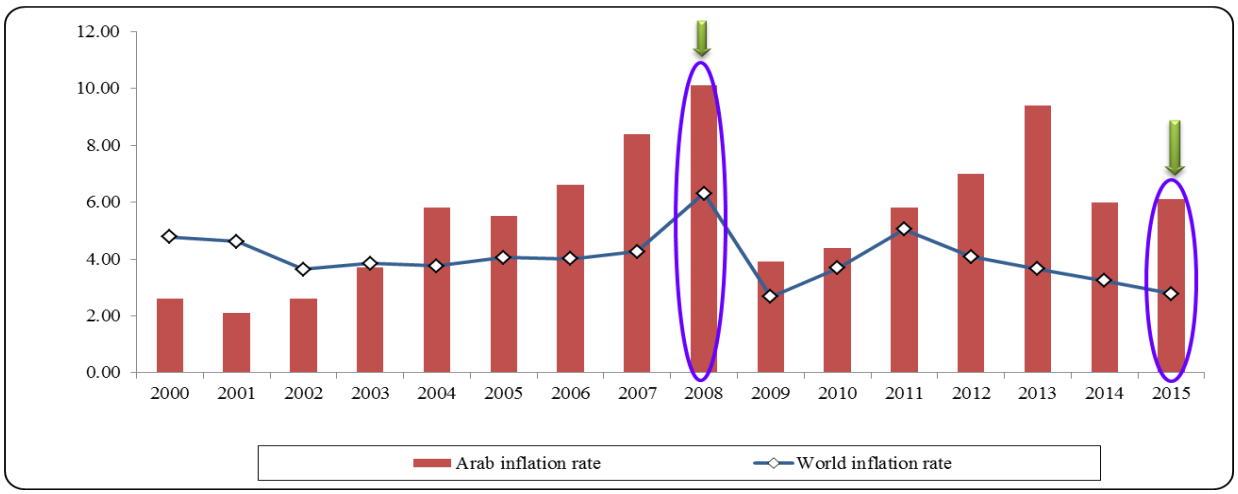
These developments also impacted on some of the oil exporting and importing Arab countries, either directly or indirectly. It exacerbated the effects of the downward movement of global oil prices which started from the beginning of the fourth quarter of 2014. Oil prices declined by 49 per cent in 2015 compared with 2014, which resulted in a marked decline in the growth rates of oil exporting Arab countries

[4] The term Arab Spring refers to the democratic uprisings that started independently and spread across the Arab countries in 2011. This movement begun in December 2010 in Tunisia and quickly spread to Egypt, Libya, Yemen, Bahrain, Jordan, Syria, and Saudi Arabia.

(AMF, 2016). Therefore, the growth rate of the Arab countries as a group declined to 3.5 per cent during the second period.

Concerning the **inflation** developments over 2000-2008, the trend of inflation in the Arab countries was contrary to the trend in global inflation rates. Global inflation stabilized at around 4 per cent during 2000-2007. However, 2008 witnessed an upward trend in the global inflation rate to, 6.3 per cent. This was attributed to the surging prices of a number of primary commodities, led by oil, which increased by about 37 per cent compared to 2007 (IMF, 2009). At the same time, inflation rates in Arab countries tended to rise, most notably driven by an increase in domestic demand, with the improvement in economic activity and a remarkable rise in rates of domestic liquidity growth. Another factor was the impact of the declining value of the US dollar on the value Arab currencies, pegged to the US dollar, against other major currencies. Therefore, 2008 witnessed the highest rise recorded in the consumer prices index, reflecting the sharp increase in the prices of basic commodities, led by oil (Annex Table 1/1 & Figure 3).

Figure (3)



Source: Annex Table (1/1).

During 2009-2015, there was a downturn in global inflation resulting from the global financial crisis and the European sovereign debt crisis. These two crises led to a decline in global demand and the adoption of austerity fiscal policies in a number of countries, especially advanced economies, causing high unemployment and a decline in inflationary pressures. 2010 and 2011 are considered as an exception to this downward trend in world prices. The global inflation rate recorded an upward movement in those two years in the shadow, once again, of high rises in food and oil prices (IMF, 2016).

As for inflation rates in the Arab countries during 2009-2015, they followed a similar trend to developments in global prices. 2011 witnessed the highest inflation recorded, caused by factors including higher oil prices, as well as the impact of internal developments (the Arab spring) in some countries, on basic commodity networks (AMF, 2012). In addition, higher inflation resulted from the decline in the value of some Arab currencies against major currencies, due to the Arab spring developments (AMF, 2015).

With regard to **monetary** developments, interest rate trends in the Arab countries have been strongly associated with changes recorded in the domestic and international economic environment, particularly the adoption of a fixed exchange rate policy by twelve Arab countries. Over 2000-2008, long-term interest rates fell significantly in a large number of major industrialized countries, in particular over 2000-2003, reflecting the efforts of the developed countries to get out of the economic slowdown. Monetary policy supported the economic recovery during the early years of this period, after which global interest rates tended to rise in light of

the high rates of economic growth and the emergence of inflationary pressures (AMF, 2010).

On the other hand, during the second period, following the global financial crisis, expansionary trends prevailed in the orientation of monetary policy in a number of developed countries. Central banks conducted successive cuts in interest rates and injected liquidity in the banking system, through continuous rounds of quantitative easing programmes aimed at encouraging banks to provide credit and overcome the problem of lack of liquidity (IMF, 2013).

In general, the movements of interest rates in the Arab countries reflected the changes in international interest rates, particularly for the Arab countries with fixed exchange rates. However, we should refer to the keenness of some of these countries to keep a margin between the interest rates on local currencies and interest rates on anchored currencies, in order to provide space for the independence of monetary policy to achieve its ultimate goals, liquidity management and granting credit, in line with their economic conditions. In terms of the Arab countries that adopted more flexible exchange rate systems, their currencies were relatively stable against the major foreign currencies during the first period, taking advantage of the improvement in economic activity and accumulated foreign reserves in those countries.

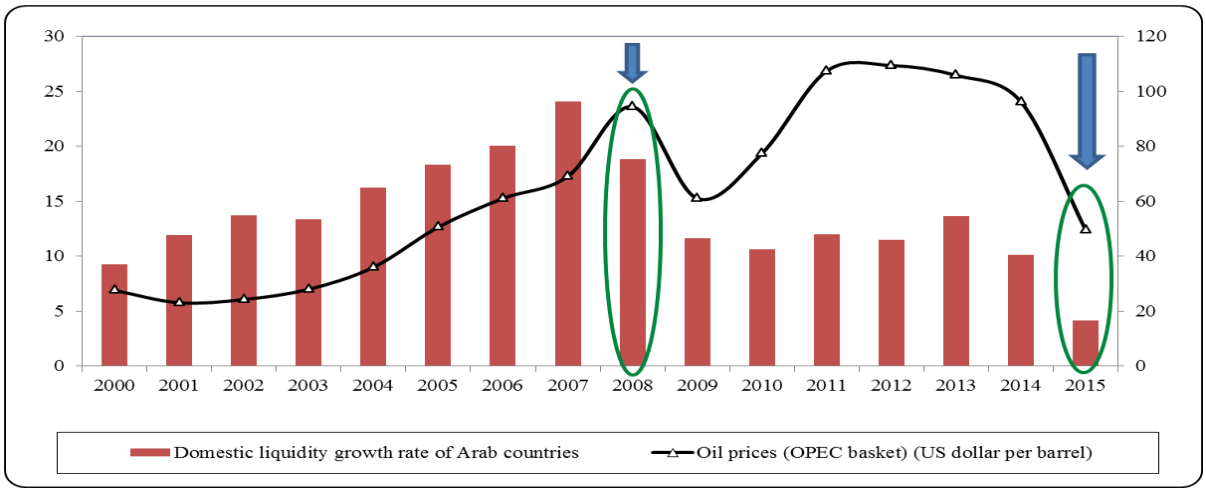
During the second period, some currencies of Arab countries faced pressures in the foreign exchange market and significant fluctuations, especially currencies of Arab

states that witnessed unfavourable conditions at the beginning of the 2011. Central banks' interventions in those countries did not solve this problem. Therefore many central banks adopted measures to increase domestic interest rates to defend the local currency, or implemented successive reductions in the value of their local currencies (AMF, 2013).

On the other hand, the changes in domestic liquidity in the Arab countries reflected to a large extent the international economic environment, especially with regard to developments in oil prices. During the first period, global oil prices took an upward trend, helping to increase fiscal surplus levels in the oil-exporting Arab countries. This contributed to a significant rise in the volume of domestic deposits, and a surge in domestic liquidity levels in those countries; this was mainly driven by the expansionary impact of net foreign assets. These developments necessitated the intervention of the monetary authorities in the oil-exporting Arab countries to absorb excess liquidity.

Concerning oil-importing Arab countries, part of these fiscal surpluses went to the Arab oil-importing countries through workers' remittances and FDI flows, which helped to raise the average growth rate of domestic liquidity in these countries to about 15 per cent annually during the first period (Annex Table 1/1 & Figure 4).

Figure (4)



Source: Annex Table (1/1).

In contrast, the downward trend of global oil prices during the second period is reflected in declining growth rates of domestic liquidity. This is mainly due to the marked decline in net foreign assets of Arab countries. In addition, the internal circumstances witnessed in some Arab countries impacted negatively on the levels of domestic prices, as a result of liquidity crises in these countries. This spurred the central banks to intervene by using a number of mechanisms to mitigate the impact of low levels of liquidity on credit volume granted and economic growth. In light of these developments, the contribution of net foreign assets as a source of expansion in liquidity fell significantly, whereas net domestic credit increased markedly, reflecting the large escalation in government borrowing in order to finance the large deficits in public budgets. As a result, the domestic liquidity growth rate declined during the second period to reach about 8 per cent (AMF, 2015).

Some empirical studies have addressed the reforms adopted in the Arab countries. Zouache and Ilmane (2008) stated that most Arab countries implemented

progressive reforms during the last two decades aiming at ensuring the independence of the central banks and increasing their efficiency in achieving monetary policy goals. New legislation has been enacted to give central banks full authority in setting and implementing the appropriate measures to achieve monetary policy objectives. Within this, interest rates have been liberalized, central banks have shifted to market oriented and indirect monetary policy tools; and more emphasis has been placed on achieving price stability and anchoring inflation expectations. These efforts were supported by successful parallel efforts to achieve fiscal consolidation in many Arab countries (Abdel Monem, 2012; IMF, 2013).

Few studies have addressed the issue of central bank independence[5] in Arab countries. The most important is the study by the Arab Monetary Fund which assessed the degree of central bank independence by constructing a composite index[6] to measure the degree of legal independence of the central banks in eleven Arab countries[7]. The study ranked the central banks of Lebanon, Saudi Arabia, Egypt and

[5] There are many definitions for central bank independence used in empirical studies, without any consensus on one agreed-upon definition. Some definitions distinguish between de jure independence (Legislations that govern the central banks), and de facto independence (the level of authority that the central bank enjoys with respect to the authority). Other definitions distinguish between political independence (the ability to take monetary decisions apart from any political intervention) versus economic independence or monetary policy independence (the ability to use the monetary instruments freely to achieve monetary policy goals) (Zouache and Ilmane, 2008).

[6] The composite index comprised four sub-indexes addressing the following issues: 1. The hiring process of the Governor of the central bank and his hiring term, 2. The way of formulating economic policies and the way of solving any possible conflict between the central bank and the government, 3. Monetary policy goals and to what extent price stability considers a top priority, 4. Limits on government lending (Sadek, Jarehi and Latifa, 1996).

[7] These countries include: Jordan, United Arab Emirates, Tunisia, Algeria, Saudi Arabia, Syria, Lebanon, Libya, Egypt, Morocco and Mauritania.

Algeria as the top four independent central banks within the studied countries (Sadek, Jarehi and Latifa, 1996).

As for monetary policy independence, it worth mentioning that the main goal of monetary policy in twelve Arab countries[8] (The majority of which are Arab oil-exporting countries) is to preserve exchange rate stability, so interest rate decisions in these countries are mainly imitating the monetary policy decisions in the most important trade partner. As small open economies with no restrictions imposed on capital account transactions, many Arab oil exporting countries[9] opted to maintain fixed exchange rate regimes against the US dollar. The logic behind this policy lies in the major contribution of oil receipts in their economies. Oil exports, priced in US dollar in international markets, contribute the lion's share in their total export receipts and public revenues. In addition, these countries hold huge US dollar denominated assets invested in sovereign wealth funds. Fixed exchange rate regimes against the US dollar help these countries to avoid harmful fluctuations in the value of oil receipts, enabling them to stabilize exchange rate expectations, hence controlling inflation and preserving the value of the wealth invested in sovereign funds. For these countries, there is limited room for adopting an independent monetary policy as a result of the macroeconomic policy trilemma[10].

[8] Saudi Arabia, United Arab Emirates, Bahrain, Oman, Kuwait, Qatar, Iraq, Libya, Jordan, Lebanon, Syria, and Djibouti.

[9] Saudi Arabia, United Arab Emirates, Bahrain, Oman, Kuwait, Qatar, and Iraq.

[10] According to this argument, policy makers could at most achieve two objects/policies of what so called "impossible trinity", at the same time. These objectives/policies are: 1. Fixed exchange rate regime, 2. Independent monetary policy and 3. Free capital mobility. To achieve any two targets of the abovementioned targets, policy makers should rule out

For instance, the pegged exchange rate regime with the US dollar in GCC countries[11] limits the ability of these countries to adopt an autonomous monetary policy, especially with free capital flows. Policy rates in GCC follow Federal Reserve Board decisions, so there is a long-term relationship between domestic interest rates in GCC and the US interest rate. However, in the short run there is some degree of deviation between monetary policy decisions in GCC and those of the United States. The speed of adjustment in GCC to US interest rate decisions varies between these countries, with Bahrain the fastest and Oman the slowest (IMF, 2011).

In addition, GCC countries tended after the financial crisis to use other instruments, such as the reserve requirement ratio, loan to deposit ratio and other macro-prudential measures, to manage domestic liquidity and ensure financial stability (Abdel Monem, 2012; IMF, 2011). Many factors related to the characteristics of GCC economies underscore the role of macro-prudential policy as an important macroeconomic policy used to prevent credit booms and contain systemic risks. Since there is limited monetary policy independence in GCC, fiscal policy is playing an increasing role in managing total demand in these countries. However, as fiscal policy is the first line of defence and could not be used sometimes to prevent credit booms and contain systemic risk, there is an irreplaceable role for macro-prudential policy in stabilizing the economy and enhancing financial stability (IMF, 2014).

the third one. So there is a always a trade-off between exchange rate stability and the autonomous of monetary policy even exacerbating more by free capital mobility (Obstfeld and Taylor 1996 ; IMF, 2013).

[11] Except Kuwait which pegs its currency to a basket of currencies dominated mainly by US dollar.

Other Arab countries (like Egypt, Morocco, Tunisia, Algeria) shifted in the last decade towards more flexible exchange rate regimes, or pegging their currencies to a basket of currencies, to address economic vulnerabilities, restore economic resilience and enhance competitiveness. The monetary policy in these countries proved to be relatively more independent in curbing inflation, fostering economic growth and managing domestic liquidity (Abdel Monem, 2012).

Regarding the main monetary policy transmission mechanisms, these differ greatly between Arab countries according to many factors, such as the degree of financial market development, the importance of domestic savings and the exchange rate regime. The market interest rate, credit availability and asset prices are the main monetary policy transmission mechanisms in Arab oil-exporting countries, which are characterized by relatively more developed financial markets and higher levels of domestic saving. Nevertheless, the efficiency of these transmission mechanisms could be further enhanced through the development of money and capital markets. For other Arab countries (like Jordan, Tunisia, Djibouti, Sudan, Comoros, Lebanon, Egypt, Mauritania, and Yemen) which have lower levels of domestic saving, credit availability is the main monetary policy transmission mechanism, while the exchange rate channel is also one of the main monetary policy transmission channels in Arab countries with more flexible exchange rate regimes (IMF, 2011; 2013).

As for the link between monetary policy and competitiveness in Arab countries, it is worth noting that the above mentioned monetary reforms have helped some Arab countries to enhance their competitiveness measured by output growth. In this

context, a study conducted by Ersel and Kandil (2000) addressed the effect of monetary policy decisions affecting the money supply on output growth in eight Arab countries, including three oil-exporting countries (Algeria, Saudi Arabia and Kuwait) and five Arab oil-importing countries (Egypt, Jordan, Syria, Tunisia, Morocco) during the period 1955-1994.

The study concluded that both the anticipated and the random unanticipated fluctuations in the money supply are statistically significant in determining real output growth in Algeria, Jordan, and Tunisia. Accordingly, changes in the money supply have non-neutral lasting effects on output growth over time. For the other Arab countries, monetary policy is not statistically significant in determining real output growth (Ersel and Kandil, 2000).

Regarding the exchange rate reforms in Arab countries, they accelerated in the 1990s as many Arab countries adopted fixed exchange rate regimes. However, with the poor performance of the export sector and modest capital inflows, these countries faced significant strains on their balance of payments and hence tended to enforce controls on the foreign exchange markets to prevent the devaluation of their currencies. The aforementioned circumstances led to the existence of many pricing mechanisms for foreign exchange and contributed to the emergence of parallel markets in many Arab countries, like Algeria, Egypt, Morocco, Sudan, Syria and Yemen. In response to the economic imbalances resulting from overvalued currencies, the 1990s reforms mainly focused on the unification of foreign exchange markets, eliminating multiple pricing mechanisms for foreign exchange, and the gradual depreciation of some Arab currencies (El-Erian and Tareq, 1993).

On the other hand, the exchange rate reforms in the first decade of the new millennium were aiming at achieving exchange rate stability to create a conducive environment for economic growth and increase the resilience of Arab countries to external shocks (Abdel Monem, 2012).

As for the role of exchange rate policies in enhancing the competitiveness of Arab countries, one should distinguish between the Arab countries with fixed exchange rate regimes (which are mainly Arab oil-exporting countries) and the other Arab countries with more flexible exchange rate regimes (mostly Arab oil-importing countries with more diversified economies).

For the first group, there is a relatively limited role for exchange rate mechanisms in increasing the competitiveness of these countries, as the main channel to affect the real exchange rate in these countries is the inflation rate channel. In addition, the price of their main exports (oil) is basically determined by developments in the world oil market. On the contrary, there is a greater role for exchange rate mechanisms to enhance the competitiveness of the second group which have more diversified economic structure and more flexible exchange rate regimes.

Among the few studies that addressed the link between the exchange rates and competitiveness in Arab countries, Abdel Monem (2012) studied the role of exchange rates reforms in achieving economic stability in Arab countries during the period 1980-2010 after dividing it into two main sub-periods. She confirmed that the

reforms implemented in Arab countries during the period 2005-2010 helped to reduce the degree of exchange rate fluctuations significantly in fifteen Arab countries, compared to the period 2000-2004. In addition, the study found that the exchange rate reforms and the sound macroeconomic policies aiming at containing inflation in Arab countries, enhanced the competitiveness of twelve Arab currencies, reflected by the improvement in their real effective exchange rates during the period 2005-2010 compared to the period 2000-2004.

At the country level, a study conducted by Alhabib (n.d.) tested the relation between the exchange rate in Algeria and competitiveness, measured by the economic growth rate during the period 1970-2002. This study found a relatively weak relationship between these two variables. It confirmed that economic growth in Algeria is mainly determined by developments in the world oil market (which is expected, as Algeria is one of the main Arab oil-exporting countries), with a limited impact of exchange rate changes on economic growth. Alhabib estimated that only 21 per cent of the changes in economic growth can be attributed to changes in exchange rates. In order to enhance the competitiveness of the Algerian Dinar, he recommended policy makers focus more on attracting investments to non-oil sectors and to diversify the composition of the Dinar's price basket.

Concerning more diversified Arab countries, a study conducted by Brixiova, et al (2013) assessed the misalignment between the real exchange rates and equilibrium levels in three Arab countries, Egypt, Tunisia and Morocco, in the past three decades. The study referred to competitiveness challenges faced by these countries in the

global markets, reflected by their small share of world exports, which negatively affects domestic demand and leads to increasing levels of unemployment in these countries. The study found a significant misalignment between the real exchange rate and the equilibrium level in Egypt due to overvaluation of the real exchange rate during the period from the mid 1990s to the mid 2000s as a result of increasing inflation. On the other hand, the study confirmed that the real exchange rates in Morocco and Tunisia broadly reflected the underlying fundamentals, with minimal misalignment from equilibrium levels.

The study attributed the low misalignment in Tunisia to the shift in monetary policies towards anchoring the real exchange rate instead of the nominal exchange rate, which allows for greater exchange rate flexibility, while in Morocco it can be explained by efficient monetary policies aiming at a gradual shift towards inflation targeting. Nevertheless, the study confirmed that non-price structural factors such as the flexibility of the labour market, the investment climate and employment skills are the main factors that could explain more of the changes in the competitiveness levels in these countries (Brixiova et al 2013).

With regard to the **fiscal situation** of the Arab countries as a group, their performance has been affected mainly by the changes in oil prices, but also a number of additional political and economic factors. During the first period, Global oil prices[12] rose by 242 per cent, to reach about $ 94.50 per barrel in 2008 compared with about $ 27.20 per barrel in 2000. This increase is reflected in the fiscal and

[12] Based on the average of OPEC basket prices.

external positions of Arab countries during that period. The relative importance of oil revenues increased to about 70 per cent of total public revenues and about 69 per cent of the proceeds of the Arab countries' exports (AMF, 2009).

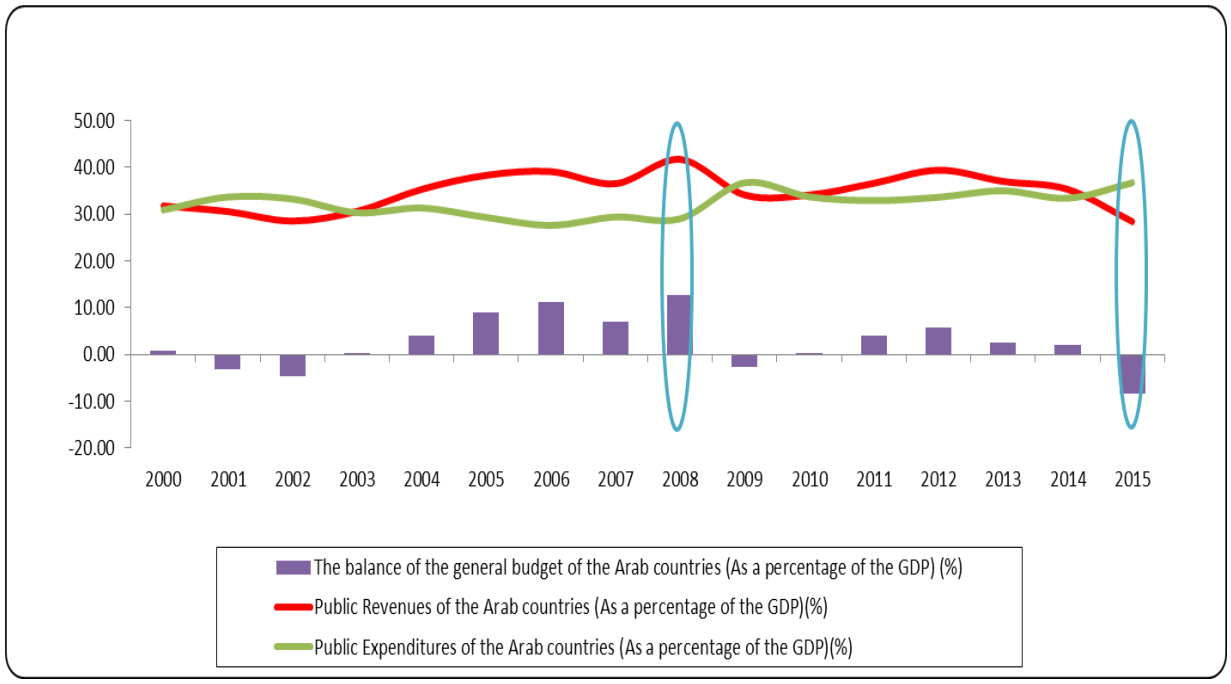
High oil prices enabled Arab countries as a group, during the first period, to improve public revenues, which increased by 21 per cent per year on average. As a result fiscal surpluses accumulated in the Arab oil-exporting countries, which were utilized in financing infrastructure projects, plans and in enhancing the assets of sovereign wealth funds, in addition to enhancing foreign investments in Arab oil-importing countries. On the other hand, public expenditure rose dramatically during the first period, in both oil-exporting and importing Arab countries. As a result, public expenditure of the Arab countries as a group grew by 15 per cent annually during that period (AMF, 2009). This public expenditure was directed to increasing current and capital expenditure levels to support economic growth and finance infrastructure projects and alleviate the disparity in income distribution in some Arab countries, through a number of subsidy programs, and social security networks.

Despite that increase in public expenditures, the general budgets of the Arab countries as a group recorded fiscal surpluses during the first period. The highest levels of budget surplus was registered during the period 2005-2008, reaching10 per cent of GDP. These positive developments in public finance enabled a number of Arab countries to use part of these surpluses to pay off a significant part of their debts, especially domestic public debt, which constitutes the biggest part of their total public debt. During the period 2005-2007, Arab economies reduced their

domestic public debt by 45 per cent, to reach $ 187 billion in 2007, from $ 342 billion recorded in 2005 (AMF, 2008).

In contrast, in the second period the public budgets of Arab countries were hit by a number of negative factors, reflected in fiscal consolidation, higher deficits and public debt. The main factors included, the repercussions of the global financial crisis and the sovereign debt crisis, unfavourable circumstances in some Arab countries from the beginning of 2011, and the effect of the downward trend of global oil prices from the second half of the year 2014, (Figure 5) (AMF, 2015).

Figure (5)



Source: Arab Monetary Fund, Joint Arab Economic Report Database, (AMF, 2016).

The GCC countries were amongst the first Arab countries to deal with the impacts of the financial crisis. In order to sustain economic performance, they applied rescue

packages and assigned significant resources to revive domestic demand. Other Arab countries were stuck and incapable of dealing with the impacts of the financial crisis owing to their budget restrictions and limited financial resources (Saif and Choucair, 2009).

Roy et al (2011) stated that Arab countries have different fiscal space owing to the different income levels in these countries[13]. They distinguished between Arab oil exporting countries and Arab oil importing countries. Gulf countries, in addition to Libya and Algeria, did not face difficulties concerning fiscal space; the main problem for them was to select and implement suitable policies in order to diversify their economies, as they are the main Arab Oil exporting countries. Moreover, these oil exporting countries were shown to be more advanced in achieving the Millennium Development Goals. The paper considered other Arab oil exporting countries like Yemen and Sudan, as lower-income oil exporters in a risky position owing to the deterioration in their oil reserves and the increase of their poverty levels. On the other side, the paper stated that the fiscal space of oil importer countries had to be managed carefully. In this same vein, the paper considered that Jordan, Lebanon and Tunisia were in a better position due to their small populations, larger per capita income and their revenues from tourism, transfers and remittances. In contrast, Egypt, Syria and Morocco were in a difficult position due to their dependence on deteriorating oil revenues and growing internal debt.

Gressani and Kouame (2009) found that many Arab countries responded to the crisis by implementing stimulus packages, but that these varied according to their

[13] This assessment was before the Arab Spring.

circumstances, especially their ability to increase public spending, and channels of transmission of the crisis to their economies. For instance, Egypt adopted a stimulus package to increase public spending on infrastructure projects, Tunisia applied a stimulus package to encourage SMEs, to compensate for the negative impact of the deterioration in their exports to Europe. We argue that the high economic growth rates recorded in these countries before the crisis supported the fiscal space available, reflected in lower rates of budget deficit in these two countries. Consequently, these countries were later able to increase the level of public spending in order to overcome the impacts of the crisis, which led to higher rates of budget deficit. In Tunisia the budget deficit jumped from US$ 0.3 billion in 2008 to US$ 1.2 billion in 2009, while in Egypt the deficit recorded US$ 13 billion in 2009 compared with US$ 11 billion in 2008, (AMF, 2010).

We therefore argue that Arab countries worked hard to rescue their economies in response to the consequences of the financial crisis. Their responses varied according to their economic structure, the circumstances of each country and availability of resources. The main objective of the stimulus packages applied by Arab countries was to stimulate domestic demand through supporting the private sector and SMEs, or by implementing projects related to infrastructure to boost demand levl, improve the investment climate and enhance their competitiveness levels.

These developments had a significant effect on the public budgets of the Arab economies. On the one hand they affected negatively public revenues, oil and tax revenue, in addition to the unprecedented increase in public expenditure. Market

developments led to a decline in oil revenues in the Arab oil-exporting countries. Also, tax revenues in the Arab oil-importing countries were impacted negatively, as a result of the decline in economic activity. At the same time, the Arab Spring led to growing social demands and the trend of governments to increase spending to increase workers' salaries in the government sector and raise social spending. In total, the second period witnessed a negative impact on the public finance position in many Arab countries. Therefore the majority of Arab countries recorded deficits in the general budget, including Arab oil-exporting countries, for the first time in years. As a result the consolidated budget surplus for the Arab economies declined to register about 0.16 per cent of GDP during the period 2009-2015 (AMF, 2016). Consequently, these developments forced many Arab countries to borrow, which increased public debt for these countries by 186 per cent to reach $ 636 billion in 2015, against $ 222 billion recorded in 2008 (AMF, 2016).

There is no doubt that the large increase in the levels of public debt for the Arab countries had many negative repercussions on macroeconomic performance and the competitiveness of Arab countries, across a number of channels. The main channels included the effect of crowding out caused by increased borrowing from the domestic market, which negatively affected the credit granted to the private sector, raising its cost. As the high burden of domestic debt service in some Arab countries drains a large portion of the public revenues annually. this does not allow room for much more spending on infrastructure, education health and other sectors, as drivers of economic growth in the future. In addition, the high external public debt service affected the levels of available foreign exchange and generated pressures on domestic currencies.

1.2. The policy reforms adopted to improve the business climate in Arab countries

This part will focus on the reform policies[14] adopted in order to improve the ranking of the Arab countries in the indicators included in the doing business report, 2016, of the World Bank[15]. The main topics include starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency, Annex Table (3/1).

In **Algeria**, the measures taken during the period 2008 – 2016 to improve the business and investment climate and enhance competitiveness included reform policies for starting a business, construction permits, access to credit, paying taxes, contract enforcement and trading across borders. In order to make starting a business easier, Algeria eliminated requirements to obtain managers' criminal records. The measures taken to improve construction permits included enhancement of the

[14] These policies are derived from the website of the World Bank – Doing Business, through the following address: http://www.doingbusiness.org/Reforms/Overview/Region/middle-east-and-north-africa, and attached in Annex Table (3/1).

[15] According to World Bank (2016), the main indicators include dealing with construction permits, getting electricity, registering property, enforcing contracts, labour market regulation and trade across borders. Each indicator contain sub-indicators, construction permits include an index of the quality of building regulation and its implementation. And the getting electricity indicator includes a measure of the price of electricity consumption and an index of the reliability of electricity supply and transparency of tariffs. The registering property indicator includes an index of the quality of the land administration system in each economy in addition to the indicators on the number of procedures and the time and cost to transfer property. Also, the indicator of enforcing contracts includes an index of the quality and efficiency of judicial processes. The labour market regulation indicator includes areas capturing aspects of job quality. Trading across borders includes, for each economy, the export product, the import product, and trade partner. In addition to, measuring the time and cost of export and import.

process by introducing new regulations aimed at improving the administration of the process, and ensuring the safe and timely completion of construction projects. They also eliminated the legal requirement to provide a certified copy of a property title when applying for a building permit, and reduced the cost of registering property by reducing notary fees and eliminating capital gains.

With regard to access to credit, Algeria guaranteed by law the right of borrowers to inspect their personal data and eliminated the minimum threshold for loans to be included in the database. These measures improved access to credit information and facilitated access to credit. Trade across borders was made easier by upgrading infrastructure at Algerian ports, despite the difficulty of increasing the number of inspections carried out. Also, Algeria tried to reduce taxes by decreasing the corporate income tax rate for tourism, construction and public works, and the production of goods. In addition to previous reforms, Algeria enhanced contract enforcement by presenting a new civil procedure code that reduces the steps and time required and by fully computerizing the courts, including setting up an electronic case management system.

The reforms in **Bahrain** included the fields of registering property, access to credit, starting a business, trading across borders, and construction permits. Concerning registering property, Bahrain reduced the registration fee in 2015 to overcome the reform measure of 2011, which increased the fees at the Survey and Land Registration Bureau. For access to credit information, Bahrain adopted the measures of starting to gather payment information from retailers, and authorizing the credit bureau's collection of data on companies. Starting businesses in Bahrain is more

expensive, as the authorities in 2014 increased the cost of the business registration certificate. However trade became easier, since the Bahraini government in 2011 built a modern new port, improved the electronic data interchange system and introduced risk-based inspections. Also the authorities in Bahrain made construction permits easier by further consolidating preliminary approvals for building permits in the one-stop shop and reducing the time needed to obtain a building permit.

The reforms in **Djibouti** focused on the areas of construction permits, starting a business, secured transactions system, trading across borders, and taxes. Djibouti in 2012 increased the fees for inspections and the building permit and added a new step for inspection in the preconstruction phase. However in 2015 the government applied a new measure aimed at reducing the time taken in getting a construction permit, by simplifying the review process for building permits. Starting a business became easier once the government removed the minimum capital requirement, along with the prerequisite to publish a notice of start of activities. Also, Djibouti reinforced its secured transactions system by applying a new commercial code, which broadens the range of movable assets that can be used as collateral.

Furthermore, the government developed a new container terminal, improved port administration, removed some health and technical procedures, implemented an electronic manifest system, and reduced the required documents for the process of exporting and importing. These reforms helped Djibouti to make trading across borders easier and faster. Moreover, the authorities replaced the consumption tax with a value added tax on the supply of goods and services, in order to make paying taxes easier for firms.

Egypt adopted several reforms during the period 2008 – 2016 to improve the business environment. These reforms included investor protection, taxes, starting a business, trading across borders, construction permits, access to credit, enforcing contracts, and property registration. Egypt introduced during 2015 and 2016 new reforms to reinforce investor protections, such as excluding subsidiaries from acquiring shares issued by their parent company, in addition to presenting extra prerequisites for approval of related-party transactions and greater requirements for disclosure of such transactions to the stock exchange.

Moreover, Egypt made starting a business easier by eliminating the minimum capital requirement, abolishing bar association fees and automating tax registration. Egypt reduced registration fees, and improved the process at the one-stop shop to simplify starting business procedures. Trading across borders became easier by adopting an electronic system for submitting the documents for exports and imports, enhancing the facilities of Alexandria port, making customs clearance faster, and reducing the time needed to open a letter of credit.

Concerning construction permits, to make the process easier, Egypt eliminated most preapprovals for building permits, established a single window to facilitate related approvals, and reduced the cost of registering a new building. Access to credit information was enhanced by creating a new private credit bureau, and giving borrowers the right to inspect their own data in the private credit bureau.

Moreover, Egypt took measures to improve property registration, such as simplifying administrative procedures, reorganizing business workflows between the real estate registry and the Egyptian Surveying Authority, introducing time limits for several procedures, and introducing a low fixed fee. Egypt also created commercial courts to facilitate enforcing contracts. However, in 2014 taxes were increased.

Measures taken in **Iraq**, on the other hand, made **starting a business** more expensive, since the cost to obtain a name reservation certificate increased and the cost for lawyers to draft articles of association rose too.

The reform measures in **Jordan** addressed trading across borders, starting a business, access to credit, taxes, constructions permit registering property, and contract enforcement. The reform policies adopted to simplify trading across borders include enhancing infrastructure at Aqaba port, and applying X-ray scanners for risk management systems. In addition, to cut the time needed for exporting and importing, a risk-based inspection system with post destination clearance for preapproved traders was adopted, decreasing the number of containers subject to physical inspection and allowing online submission of customs declarations by fully adopting the ASYCUDA World electronic data interchange system.

Also, Jordan facilitated starting a business by reducing the minimum capital requirement from 1,000 Jordanian dinars to 1 dinar, and reduced the time and number of procedures by implementing a one-stop shop. Concerning credit

information systems, Jordan applied a regulatory framework for creating a private credit bureau, in addition to reducing the threshold for loans to be reported to the public credit registry. Also, Jordan simplified paying taxes by applying an online filing and payment system and simplifying tax forms.

Jordan facilitated dealing with construction permits by extending the services of the one-stop shop, and registering property by decreasing property transfer fees. The government, to enhance contract enforcement, created a specialized commercial court division, provided its courts with a computer-aided case management system and raising the ceiling for cases heard by the lower court to enhance the distribution of the caseload.

Kuwait, during the period of 2008 – 2016, adopted reform policies for starting a business, investor protection, labour regulations, trading across borders, construction permits, and credit information. To facilitate starting a business, Kuwait reduced the minimum capital requirement, however it also increased the commercial license fee. Investor protection regulation was improved by enabling the possibility for minority shareholders to request an auditor to review the company's activities. Moreover, Kuwait increased the period of paid annual leave and increased the notice period applicable in case of redundancy dismissals. It enhanced trading across borders, improving administrative procedures and staff training, construction permits by adopting an automated system for issuing technical approvals for utility connections, and credit information as the private credit bureau extended its coverage through adding retailers to those providing it with credit information.

In **Lebanon**, the adopted measures to enhance the business climate included transferring property, getting electricity, starting a business, credit information, and taxes. The measure adopted for transferring property complicated the process by increasing the required time for property registration. However Lebanon facilitated starting a business by simplifying the registration process of the business, and excluding the prerequisite to have books of the company stamped. On the other hand, the cost of starting a business increased.

The authorities in Lebanon facilitated paying taxes for firms by removing the requirement to obtain permission to use accelerated depreciation and to effect payment electronically, and to get electricity more cheaply by decreasing application fees and security deposits for a new connection. Also, credit information was enhanced by permitting banks online access to the public credit registry's reports.

Reform policies in **Morocco** over the period 2008 – 2016 contained measures for starting a business, construction permits, employment, property transfers, taxes, getting electricity, trading across borders, property registration, investor protection, and access to credit information. The area of starting a business witnessed measures to simplify the required procedures, such as removing the need to file a declaration of business incorporation with the Ministry of Labour, decreasing firm registration fees, and excluding the minimum capital requirement. Construction permit facilitation measures in Morocco included reducing the time needed to get an urban certificate, and applying a one-stop shop to reduce the required procedures. Concerning labour regulations Morocco adopted an unemployment insurance scheme and increased the minimum wage.

Furthermore, Morocco facilitated getting an electricity connection by delivering fee estimates faster, and property transfers through launching electronic links among different tax authorities, and improving the electronic platform for filing and paying corporate income tax, VAT and labour taxes. In contrast, Morocco enlarged the social charge rate paid by employers.

Morocco simplified trading across borders by decreasing the required number of export documents, and removing the container identification card for exports and imports. With regard to investor protection, Morocco adopted measures to support and protect investors such as letting minority shareholders attain any non-confidential corporate document, and requiring greater disclosure in companies' annual reports. Also, the government enhanced access to credit information by creating a private credit bureau, and guaranteeing the right of borrowers to review their own data in the public credit registry. However Morocco made registering property more expensive and complicated.

Oman improved the investment climate through adopting reforms in the areas of trading across borders, labour regulations, access to credit information, taxation, and starting a business. For trading across borders Oman speeded up the procedures for exports and imports by transferring cargo operations from Sultan Qaboos Port to Sohar Port. Also, the authorities enhanced labour regulations by reducing the working days per week and increasing paid annual leave. The government adopted new measures to enhance access to credit information, by initiating the Bank Credit

and Statistical Bureau System[16], and giving the right to borrowers to review their personal data.

Furthermore, Oman reduced the time required to start a business, from 7 days to 3 days, by initiating a one-stop shop to register a business, in addition to facilitating licensing procedures. Moreover, the authorities launched a new law for income tax which reshaped the scope of taxation.

In **Qatar**, the reform measures to make the business environment more attractive included taxation, trading across borders, starting a business, construction permits, and credit information system. The government speeded up the time for border compliance for importing by decreasing the days of storage at the port and consequently the required time for port handling. In addition, Qatar launched electronic submission of customs declarations for clearance of goods at the Doha seaport. Concerning starting a business the authorities created a one-stop shop in order to merge commercial registration and registration with the Chamber of Commerce and Industry. Qatar also facilitated its credit information system by distributing historical data and removing the minimum threshold for loans contained in the database, and paying taxes for firms by removing certain prerequisites linked with the corporate income tax return. However, Qatar's authorities complicated construction permits by raising the time and cost to process building permits.

[16] Bank Credit and Statistical Bureau system collects historical information on performing and nonperforming loans for both firms and individuals.

Saudi Arabia adopted several reform policies, to improve the business climate, in the areas of property transfers, trading across borders, taxation, enforcing contracts, getting electricity, starting a business, construction permits, access to credit, and investor protections. Concerning trading across borders, the authorities applied measures during 2008-2011 aimed at improving the process of exporting and importing, such as eliminating the prerequisite for a consular certificate, permitting the electronic transfer of data, and introducing a new container terminal, in addition to enhancing the facilities in the Jeddah Islamic Port. However, the authorities in 2014 adopted measures that complicated trade across borders, by increasing the required documents for exporting and importing. The Saudi authorities simplified starting a business by launching a one-stop centre at the Ministry of Commerce, which combined registration procedures and eased publication requirements, and removed non-value-added procedures, in addition to removing the paid-in minimum capital prerequisite and making company registration faster. Concerning access to credit the government released a new law making secured lending more elastic, allowing out-of-court enforcement in the case of default, and initiated a commercial credit bureau to produce reports on firms, containing their credit exposure.

Furthermore, the Saudi government eased construction permits by creating a new streamlined process, and facilitated paying taxes for firms by presenting online filing and payment systems for social security contributions. The authorities used the facilities of information technology to simplify the procedures required for property registration, applying a comprehensive electronic system for registering title deeds, enforcing contracts by increasing the computerization of its courts and launching an electronic filing system, and property transfers by presenting a new computerized

system at the land registry. However the country made the connection fees for getting electricity more expensive.

The reform policies adopted in **Tunisia** to improve the business environment during 2008-2016 addressed taxation, trading across borders, starting a business, investor protections, access to credit information, and registering property. Authorities tried to make taxation more attractive by cutting the corporate income tax rate and launching electronic systems for payment of corporate income tax and value added tax. Also the Tunisian government facilitated trading across borders by enhancing the infrastructure and efficiency of seaports, and speeding up the uploading of import documents by upgrading the electronic system for data interchange. Concerning starting a business, the reform procedures made it more expensive by raising the cost of firm registration, in spite of the government removing the paid-in minimum capital requirement in 2009.

In order to enhance access to credit information in Tunisia, the public credit registry started to gather and distribute more detailed credit information from banks, ensuring by law the right of individuals and companies to review their data, in addition to removing the minimum threshold for loans contained within the database. With regard to investor protections, the measures included improving approval and disclosure prerequisites for related-party transactions, and letting investors ask in court for the rescission of related-party transactions that harm the firm. Also, Tunisia reduced the time required to register property, by computerizing the files of property registry.

Finally, the **United Arab Emirates (UAE)** improved the investment climate by adopting several reform policies over 2008-2016. These included construction permits, investor protections, enforcing contracts, getting electricity, transferring property, access to credit information, starting a business, taxation, and trading across borders. The authorities facilitated faster procedures for construction permits by enhancing the electronic system for obtaining no-objection certificates, building permits and completion certificates, in addition to simplifying the procedures for attaining the acceptance of civil defence. To protect the investor, the UAE government applied several measures such as initiating additional approval requirements for related-party transactions and more prerequisites for disclosure of such transactions to the stock exchange, preventing a subsidiary from acquiring shares in its parent company upon reaching 50% or more of the capital of a firm, and making a purchase offer to all shareholders.

With regard to enforcing contracts, the adopted measures included applying electronic service of process, establishing a new case management office and by developing the "Smart Petitions" service, allowing litigants to file and track motions online. Getting electricity in the UAE was made simpler by creating an electronic "one window, one step" application process, letting customers submit and track their applications online and decreasing the required time for handling applications, in addition to removing the prerequisite for site inspections. Also, the UAE government facilitated transferring property by rising the working hours of the land registry, making the fees of transfer less costly, and presenting new service centres and a standard contract for property transactions.

Furthermore, the authorities enhanced access to credit information by establishing a federal credit bureau under the supervision of the central bank. Similarly, starting a business was simplified through combining the prerequisites to file company documents with the Department for Economic Development, removing the prerequisite for a firm to prepare a name board in English and Arabic upon receiving clearance on the use of office premises, eliminating the minimum capital prerequisite and easing documentation requirements for registration, in addition to removing the requirement to present proof of deposit of capital. Paying taxes was facilitated for firms by founding an online filing and payment system for social security contributions. Moreover, trading across borders was simplified by developing more capacity at the container terminal in Dubai, removing the prerequisite for a terminal handling receipt and enhancements in the banking sector, and reducing the cost of trade finance products.

1.3. FDI performance in Arab countries

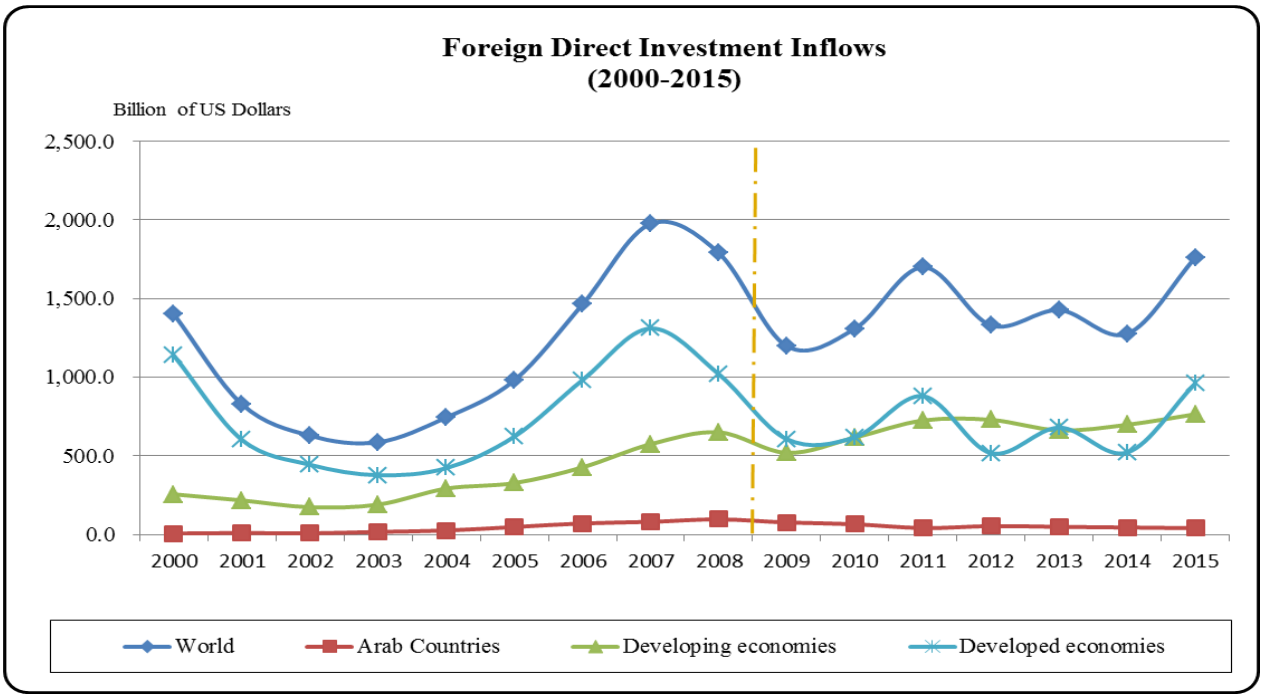
During the period 2000-2008 Arab countries devoted efforts to make the investment climate more attractive for inflows of FDI. These efforts were supported by the fiscal surpluses of Arab countries as a group, thanks to high oil prices. According to Dhaman (2005) these efforts included enhancing infrastructure, simplifying procedures related to starting a business, and improving transparency and the relevant database. In the previous subsection we also illustrated the efforts of Arab governments to improve the business and investment climate in all related areas such as starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency.

The surge in oil prices during the period attracted more foreign investments to the oil sector in Arab oil exporting countries, which contributed to increasing the total inflows of FDI to the Arab region. These accumulated fiscal surpluses helped to improve the business and investment climate in these countries. In addition these surpluses helped to increase the flows of investments from Arab oil-exporting countries to Arab oil-importing countries.

Many Arab countries launched economic cities projects which needed necessary infrastructure, airports, roads and railways. Also, high oil prices increased returns on investment in the Arab region compared to the rest of the world, and the adopted privatization programs in some Arab countries further contributed to the increase in inflows of FDI to the region in this period, (Dhaman, 2005). FDI inflows rose by 41.8 % [17] to register about US$ 96.3 billion in 2009 against US$ 5.9 billion in 2000. These FDI inflows represented 0.4% of total world FDI inflows in 2000 but 5.4 % in 2008. In contrast, the FDI inflows to developing countries represented about 18.2% of FDI inflows in 2000 and reached 36.3% in 2008. Therefore, inflows of FDI into the Arab countries were still extremely small compared to the human and natural resources held by this group of countries (Annex Table 3/2 and Figure 3).

[17] Calculated on the basis of compound average during the period 2000-2008.

Figure (6)



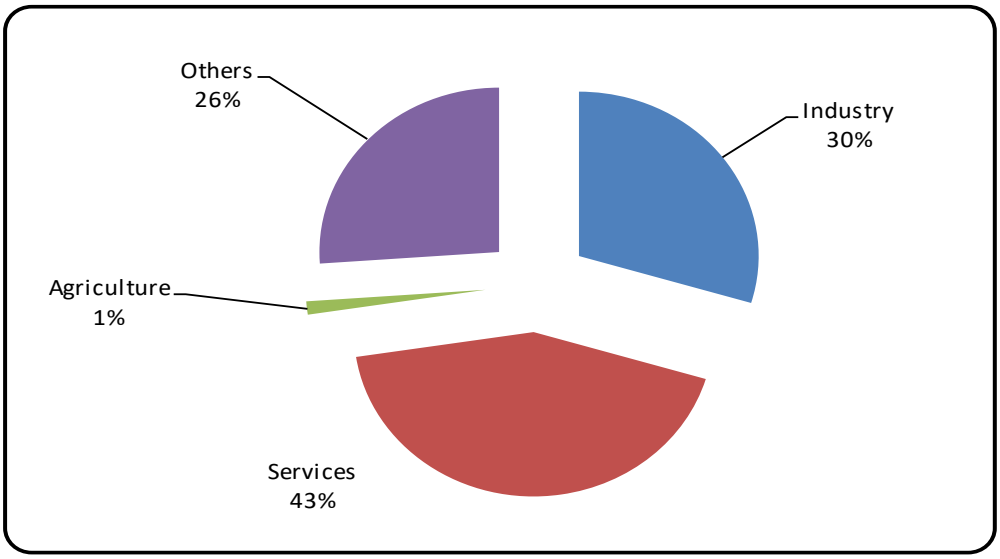
Source: UNCTAD, UNCTADstat

Considering the sectoral distribution of FDI inflows to Arab economies[18] during 2000-2008, Figure (4) indicates that the services sector received about 43 %. The improvement in infrastructure attracted more investment to the services sector, especially tourism, in addition to the startup of telecommunication and mobile network projects. The industrial sector received about 30% of FDI inflows, the majority of which went to the oil sector, thanks to high oil prices.

[18] We calculated this from the database of Dhaman for eight Arab countries according to the available data.

Figure (7)

Sectorial distribution of FDI inflows to Arab countries
2000-2008



Source : The Arab Investment & Export Credit Guarantee Corporation (Dhaman) Database

With respect to the performance of FDI during the period 2009-2015, according to Dhaman (2010), FDI inflows to Arab countries were impacted severely by the effects of the global financial and economic crisis. These inflows registered a decline of 20.7 % to reach US$ 76.3 billion in 2009 against US$ 96.3 billion in 2008. The Arab region is not the only region that witnessed a decline in FDI inflows during the crisis. World FDI inflows decreased by 33.1% in 2009 from 2008, to reach US$ 1197.8 billion. FDI inflows to Arab countries represented 6.4 % of total world FDI inflows in 2009 against 5.4 % during 2008 and represented 14.7 % of FDI inflows to developing countries, against 14.8 in 2008.

According to Dhaman (2010), the impact of the financial and economic crisis on Arab countries was modest compared to other regions. For example FDI inflows to developed countries declined by 40.5%, and flows to transition economies decreased by 40.2%. The report added that Arab countries were able to attract more FDI inflows owing to pull / push internal and external factors. The internal pull factors are divided into economic conditions, legislative and institutional frameworks and Investment Promotions Agencies (IPAs). Economic growth in the Arab countries witnessed a significant increase in the last decade, helped by the increase of FDI by 6 % annually during the last six years. In addition, Arab countries applied comprehensive reforms to improve the investment climate, including the institutional and legislative reforms outlined above. Concerning the external push factors, these included financial and economic uncertainty, and a lower rate of return on investment abroad.

Dunning (1998) specified four motives for FDI: market, efficiency, resource, and asset seeking FDI. Concerning market and efficiency seeking investment, a trade-off between closeness to market and economies of scale is revealed from FDI (Di Mauro, 1999). He also indicated the importance of market seeking FDI by showing the correlation between FDI flows and market size. Efficiency seeking FDI emphasises the factor of cost differences which play an important role in determining the location of investment (Loewendahl, 2001). Chakrabarti (2001) found that the relation between FDI and variables such as tax, wages, openness, exchange rate, tariffs, growth and trade balance are highly sensitive to small modifications in the conditioning information set and there is no specific prediction for the impact of a particular variable on FDI.

Moreover, Gressani and Kouame (2009) stated that, according to The World Bank (2008) and confirmed above, GCC countries exerted great efforts to ease starting business procedures to enable these countries to achieve a similar performance to OECD countries in this area. However, there are many Arab countries that still need to implement significant reforms in order to make the investment climate more attractive for FDI.

All of these factors helped the Arab countries to improve their competitiveness in attracting more FDI compared to other regions. In addition, the Arab investors directed part of their investments to the Arab region instead of investing abroad to avoid the economic uncertainty in the main developed markets, and to get benefits from a high rate of return in Arab countries and improved investment climate.

By the end of 2010 the Arab countries witnessed unprecedented events with the Arab Spring. Some Arab countries changed their regimes[19], while others witnessed political and security unrest. Moreover these events are still ongoing in some Arab countries[20]. These events affected FDI inflows, especially in those countries that have seen political unrest. Also, previous efforts made by these countries, during 2000-2009, to improve their investment climate were undermined by these events. As a result, FDI inflows decreased by about 10.3 % on average[21] during 2010-2015, to register about US$ 39.9 billion in 2015 compared with US$ 76.3 billion in 2009. FDI inflows to Arab countries represented 2.2% of total world FDI inflows in 2015, against about 6.4 % in 2009 (Annex Table 3/2 and Figure 3).

[19] Tunisia, Egypt, Libya, and Yemen.

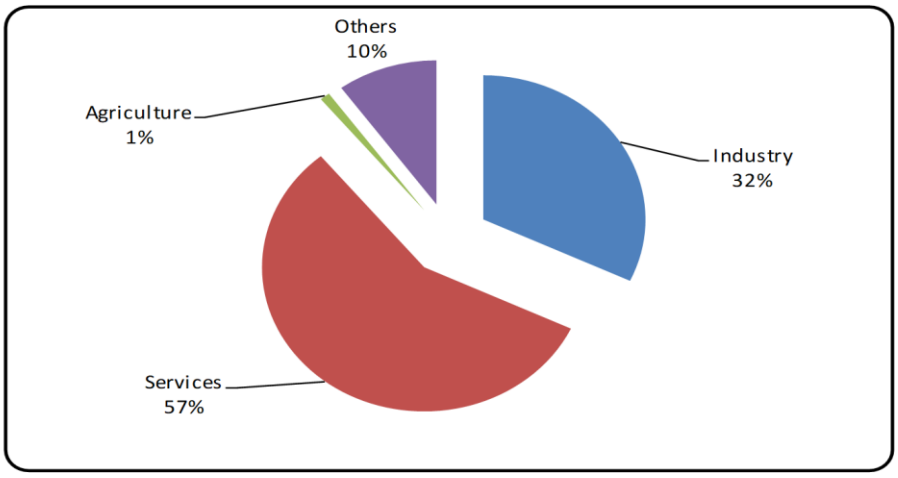
[20] Mainly, Syria, Iraq, Yemen, and Libya.

[21] Calculated on the basis of compound average during the period 2010-2015.

With regard to the sectoral distribution of FDI inflows to Arab economies[22] during 2009-2015, Figure (5) shows that the services sector acquired about 57 % of these inflows. The industrial sector received about 32% of FDI inflows, the majority going to the oil sector, thanks to high oil prices. The sectoral distribution of FDI inflows to Arab economies, across the period 2000-2015, reveals the dependency of this group of countries on natural resources.

Figure (8)

Sectorial distribution of FDI inflows to Arab countries
2009-2015



Source : The Arab Investment & Export Credit Guarantee Corporation (Dhaman) Database

The majority of FDI inflows directed to oil importing countries in this region are concentrated in the services sector, especially tourism. Many countries in this group have a lot of historical and natural places in addition to the very good weather all year in the majority of these countries. The majority of FDI inflows going to oil exporting countries in the region are concentrated in the industrial sector, mainly oil, which represents resource-seeking FDI. Therefore the Arab countries need to adopt

[22] We calculated it from the database of Dhaman for five Arab countries according to the available data.

policies that encourage economic diversification, especially with the deterioration in global oil prices. The adoption of these policies will encourage FDI inflows to other industrial and services sectors, which will impact positively on the economic growth and competitiveness of Arab economies.

In conclusion, FDI is one of the main streams affecting the economic performance of Arab countries. Moreover, pull/push internal and external factors all help to make the Arab countries able to attract more FDI flows. From these factors we see that Arab countries have implemented several measures in order to improve the investment climate and their competitiveness in attracting more FDI inflows among the other regions. Also, the external factors helped in improving the competitiveness of Arab countries in attracting FDI compared with other regions.

1.4. Trade performance in Arab countries

Arab economies, as shown above, have witnessed a range of global and regional developments and transformations that affected the economic performance of this group of countries over the period 2000-2015. We have identified two different periods within these 15 years, each characterized by a major set of variables that pushed macroeconomic performance indicators for the Arab countries in varied directions. The first period spanned 2000 to 2008, while the second period covered 2009 to 2015. During these two periods, the main economic indicators for the Arab Countries (economic growth, inflation, the general budget balance, the current account balance) embarked on different paths affected by international and regional economic changes, reflected in the internal and external balances of these countries.

We have also illustrated the impact of these changes on the internal balances of this region. In this part we will try to shed light on the impact of international and regional economic fluctuations on external balances, specifically the international trade of Arab countries over the last 15 years.

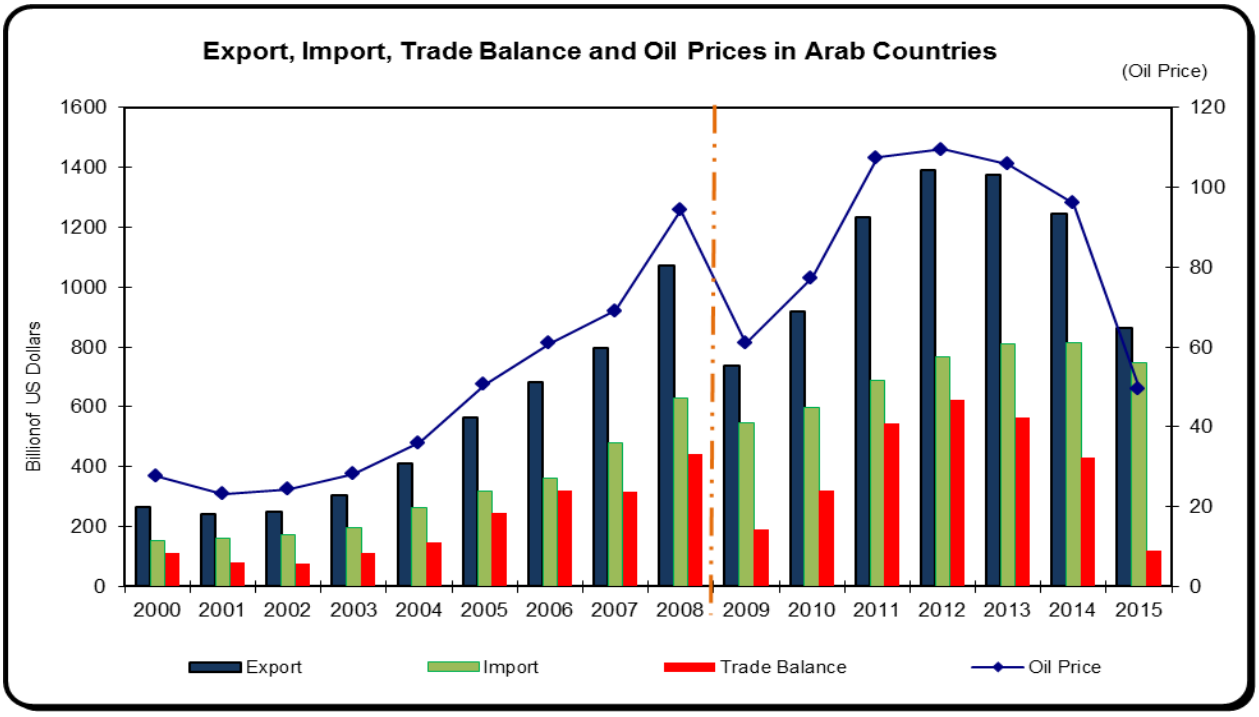
During the first period, 2000-2008, the international trade performance of Arab countries was affected mainly by fluctuations in oil prices, especially in the first two years, in addition to changes in international economic conditions. The year 2000 witnessed a continued upward trend in oil prices, which began during the previous year. Therefore the total exports of Arab countries as a group increased by 41 % from 1999, to reach US$ 263.5 billion in 2000. Imports of Arab countries increased by 5.6 % to register US$ 153.4 billion in 2000, thanks to the strong performance of US Dollar against other major international currencies. As a result, in 2000 Arab countries as a group recorded the highest trade surplus since 1981, about US$ 110 billion, (AMF, 2001).

Despite the slight decrease of oil prices in 2001, to US$ 23.10 against US$ 27.60 per barrel in 2000, the trade surplus still registered its second highest level since 1981 to register about US$ 80 billion in 2001 for Arab countries as a group. This decline in trade surplus is attributed to the slowdown in global economic growth and lower global demand levels arising from the bursting of the "dotcom bubble", in addition to the September 11 attacks. Also the adopted policies by OPEC[23], to cut production levels of oil, contributed to shrinking the trade surplus (AMF, 2002).

[23] Organization of Petroleum Exporting Countries.

Starting from 2003 and for the remaining years of the first period, the trade surplus of Arab countries witnessed a gradual increase, of about 32 % on average during the period 2003-2008. This increase is attributed to the surging prices of primary commodities, led by oil, the global recovery and increasing external demand. Oil prices rose in this period by 27.3 % to reach US$ 94.40 during 2008 compared with US$ 24.30 in 2002. The continued recovery of the global economy during the period had a positive impact on the exports and trade balance. The exports and trade balance of Arab countries as a group reached US$ 1070 billion and US$ 441 billion respectively in 2008. These levels were the highest registered up to 2008, (Annex Table 3/1 and Figure 1).

Figure (9)



Source: AMF, Joint Arab Economic Report database.

During the second period, 2009-2015, the international trade performance of Arab countries was impacted negatively by several factors. These included weak global

economic growth, reflecting the effect of the global financial crises on external demand. The report of AMF (2010, p.166) stated that the sharp decline in world trade flows in the wake of the global financial crisis impacted on Arab foreign trade in several respects. The contraction of global demand for oil and the decline in world oil prices, which began in the second half of 2008 and extended into 2009, led to a sharp reduction of oil exports from the Arab countries. Shrinking demand in the markets of the major trading partners of the Arab countries, which resulted from global economic recession, also brought about a decline in the Arab countries' exports of manufactured goods, in addition to the consequences of the global financial crisis on the financing of foreign trade, exemplified by the strictness of the commercial banks in providing funding for foreign trade by requiring collateral from dealers to finance the commercial transactions, and by reducing the grace period for this funding and increasing funding costs. Therefore the trade surplus for Arab countries as a group deteriorated by about 57 %, to US$ 189.4 billion in 2009 compared with the previous year. This deterioration came as a result of a sharp decline in exports, which fell by 31.1 %, to about US$ 736.9 billion during 2009, from about US$ 1070.2 billion in 2008, reflecting the sharp decline of oil prices (Annex Table 3/1 and Figure 1).

Habibi (2009) considered the decline in oil prices and global demand for the non-oil exports of Arab countries as the major channels of transmission for the global financial crisis which affected the economies of the Arab region. He also added that the North African Arab countries suffered from the decline registered in their exports owing to the severe recession in Europe.

Moreover, Gressani and Kouame (2009) stated that countries such as Morocco, Tunisia and Egypt (partially) suffered from the severe effect of the crisis resulting in low demand for their exports. They added that oil exporting countries suffered from the consequences of the crisis such as lower oil exports due to lower global demand.

The trade performance of the Arab countries was affected during the remaining years of the second period, especially the beginning of 2011, by the developments and unfavourable internal conditions of the Arab Spring. These negatively impacted the Arab countries witnessing these dramatic changes and led to a contraction of GDP in these economies. Production deteriorated and the proceeds from oil and non-oil exports declined markedly in these countries, (AMF, 2012).

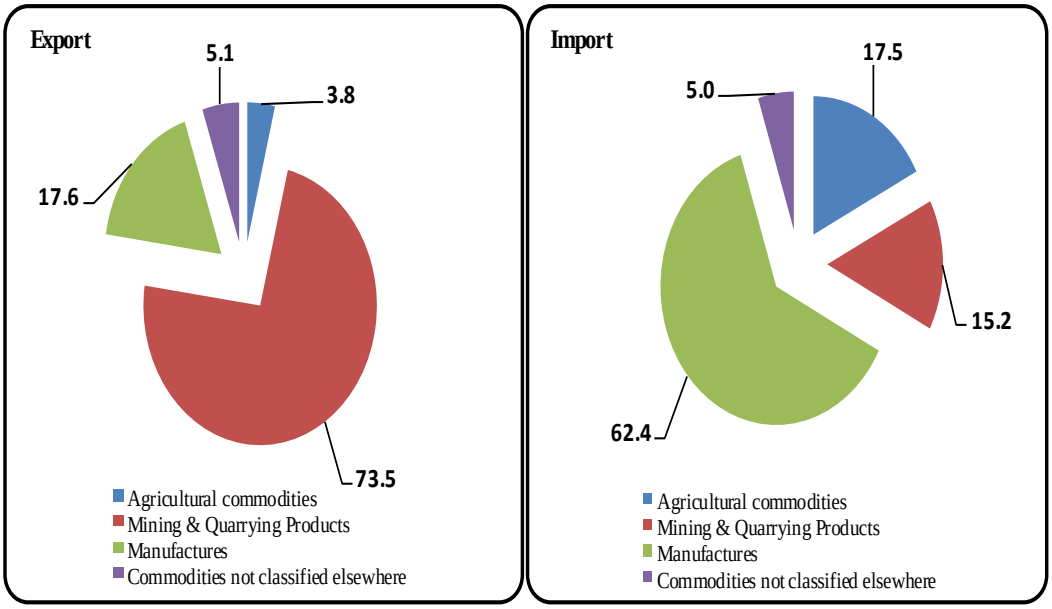
Despite these developments in Arab countries, the exports of this group recorded the highest levels ever, thanks to high oil prices during 2011-2014. Starting from the beginning of the fourth quarter of 2014 global oil prices witnessed a downturn. Oil prices declined by 49 % in 2015 compared with 2014, which resulted in a marked decline in Arab exports, to reach about US$ 865 billion during 2015 (AMF, 2016).

Gressani and Kouame (2009) stated that the implemented trade policies are the most important element that can determine the success of any country in overcoming the consequences of any crisis. They added that the crisis affected severely those Arab countries most integrated into the world economy. Their study suggests that more

integration among Arab countries will help to overcome the consequences of the crisis. However, we think that there are limitations, such as the type of imports included in Arab trade, as 62 % of Arab imports are classified as intermediate and capital goods, which could not be fulfilled from intra Arab trade owing to lack of technology in the Arab region. In addition the major part of Arab exports largely consists of oil, about 74 %, which goes mainly to advanced and developing countries (China and India), could not be absorbed by Arab countries, (Figure 2).

Figure (10)

Commodity Structure of Arab Countries' Foreign Trade For The Average Period (2005-2015)



Source: AMF, Joint Arab Economic Report database.

According to this analysis, the two most important factors affecting the competitiveness of Arab trade are oil prices and internal developments. From the

above presentation, it is clear that Arab oil exporters are heavily dependent on oil exports, therefore they need to adopt policies that encourage economic diversification. Some Arab countries in the Gulf area, with the deterioration of oil prices, started to adopt such economic policies that aim at encouraging the non-oil sector.

On the other hand, international trade in Arab oil importing countries is suffering from internal developments, mainly security and political unrest. These developments have led to a severe deterioration in their production of goods, as many factories stopped production, which reflected on the exports of these countries. Therefore, the competitiveness ranking of these countries deteriorated massively during the last five years.

To sum up, the main channels of transmission affecting the foreign trade of Arab countries were the decline in oil prices and global demand for the non-oil exports of Arab countries. In addition, total imports were affected mainly by the slowdown in the economic performance of this group of countries.

We think that the above mentioned channels of transmission of the financial crisis impacted on the performance of the competitiveness of Arab trade. Oil and non-oil exports were squeezed by the decline in oil prices and the slow pace of growth in the global economy. In addition, the majority of the studies conducted to explore the relationship between international trade and competitiveness recommend that the liberalization of the trade regime has a significant impact on economic growth and

competitiveness. The studies of Edwards (1992), Wacziarg (2001), Yusuf and Emmanuel (2000), Sinha and Sinha (2000) and Ellahi et al. (2011) revealed that there is a positive relationship between trade openness and economic growth. These studies strengthen the hypothesis that economies grow faster with a more open trade regime, and grow slower with a more distorted trade regime.

The next chapter will introduce the developments in competitiveness ranking of Arab countries worldwide, in order to reflect the effects of the adopted macroeconomic policies introduced in the very first paragraph of this chapter.

Chapter 2

The current competitiveness position of Arab economies

During the last 15 years the macroeconomic performance of Arab countries has varied enormously. We mentioned in Document 3 of the DBA project, that many Arab countries exerted continuous efforts over the period 2003-2009 to enhance their global competitiveness. As a result, the competitiveness score of the majority of Arab countries had improved by 2009 (WEF, 2010). This improvement in competitiveness for these countries was reinforced by three factors: a favourable international economic environment, stable domestic macroeconomic and political environment and economic policy reforms.

As discussed in Chapter 1, after 2010, a radical negative shift occurred for competitiveness-related factors, undermining the competitiveness of Arab countries: low oil prices and unfavourable internal developments resulting from the Arab Spring. The macroeconomic performance in these countries (especially those which witnessed political unrest), has deteriorated. As a result of these developments, there are no longer the same opportunities available for these countries to continue implementing the required economic reform policies, either in terms of availability of necessary resources or enough time given the current situation of political unrest. The reforms, which were to be implemented in order to support the competitiveness ranking of these countries, were aimed at reforming labour markets, improving the levels of education and health services, and the liberalization of goods and services markets.

In this chapter we will provide an assessment of the competitiveness rankings of Arab countries in 2014 compared with 2009[24]. We will start with the countries from the Arab region covered in World Economic Forum (WEF) report of 2015 (for 2014), compared with the report of 2010 (for 2009). Then we will present the distribution of Arab countries across the three stages of development (factor-driven stage, efficiency-driven stage and innovation-driven stage – see below for details). After that, the competitiveness performance of Arab countries will be considered.

2.1. The covered Arab countries

The report of WEF (2015), The Global Competitiveness Report 2015-2016, covered 13 Arab countries as part of the sample of 140 economies globally. These countries are Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Tunisia and the United Arab Emirates.

In contrast, the report of WEF (2010) covered 14 Arab countries, namely Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia and the United Arab Emirates. Thus Libya and Syria were excluded from the 2015 report, given the political and civil unrest in these countries in the last three years. In addition, the 2015 report included Mauritania, which was not included in the 2010 report. On the next page, Table 1 shows the competitiveness ranking of Arab countries.

[24] We provided in Document 3 an assessment for the competitiveness ranking of Arab countries in 2009.

Table 1: The Global Competitiveness Index 2015–2016 Rankings

Economy	Score[1]	Prev.[2]	Trend[3]
1 Switzerland	5.76	1	
2 Singapore	5.68	2	
3 United States	5.61	3	
4 Germany	5.53	5	
5 Netherlands	5.50	8	
6 Japan	5.47	6	
7 Hong Kong SAR	5.46	7	
8 Finland	5.45	4	
9 Sweden	5.43	10	
10 United Kingdom	5.43	9	
11 Norway	5.41	11	
12 Denmark	5.33	13	
13 Canada	5.31	15	
14 Qatar	5.30	16	
15 Taiwan, China	5.28	14	
16 New Zealand	5.25	17	
17 United Arab Emirates	5.24	12	
18 Malaysia	5.23	20	
19 Belgium	5.20	18	
20 Luxembourg	5.20	19	
21 Australia	5.15	22	
22 France	5.13	23	
23 Austria	5.12	21	
24 Ireland	5.11	25	
25 Saudi Arabia	5.07	24	
26 Korea, Rep.	4.99	26	
27 Israel	4.98	27	
28 China	4.89	28	
29 Iceland	4.83	30	
30 Estonia	4.74	29	
31 Czech Republic	4.69	37	
32 Thailand	4.64	31	
33 Spain	4.59	35	
34 Kuwait	4.59	40	
35 Chile	4.58	33	
36 Lithuania	4.55	41	
37 Indonesia	4.52	34	
38 Portugal	4.52	36	
39 Bahrain	4.52	44	
40 Azerbaijan	4.50	38	
41 Poland	4.49	43	
42 Kazakhstan	4.49	50	
43 Italy	4.46	49	
44 Latvia	4.45	42	
45 Russian Federation	4.44	53	
46 Mauritius	4.43	39	
47 Philippines	4.39	52	
48 Malta	4.39	47	
49 South Africa	4.39	56	
50 Panama	4.38	48	
51 Turkey	4.37	45	
52 Costa Rica	4.33	51	
53 Romania	4.32	59	
54 Bulgaria	4.32	54	
55 India	4.31	71	
56 Vietnam	4.30	68	
57 Mexico	4.29	61	
58 Rwanda	4.29	62	
59 Slovenia	4.28	70	
60 Macedonia, FYR	4.28	63	
61 Colombia	4.28	66	
62 Oman	4.25	46	
63 Hungary	4.25	60	
64 Jordan	4.23	64	
65 Cyprus	4.23	58	
66 Georgia	4.22	69	
67 Slovak Republic	4.22	75	
68 Sri Lanka	4.21	73	
69 Peru	4.21	65	
70 Montenegro	4.20	67	
71 Botswana	4.19	74	
72 Morocco	4.17	72	
73 Uruguay	4.09	80	
74 Iran, Islamic Rep.	4.09	83	
75 Brazil	4.08	57	
76 Ecuador	4.07	n/a	
77 Croatia	4.07	77	
78 Guatemala	4.05	78	
79 Ukraine	4.03	76	
80 Tajikistan	4.03	91	
81 Greece	4.02	81	
82 Armenia	4.01	85	
83 Lao PDR	4.00	93	
84 Moldova	4.00	82	
85 Namibia	3.99	88	
86 Jamaica	3.97	86	
87 Algeria	3.97	79	
88 Honduras	3.95	100	
89 Trinidad and Tobago	3.94	89	
90 Cambodia	3.94	95	
91 Côte d'Ivoire	3.93	115	
92 Tunisia	3.93	87	
93 Albania	3.93	97	
94 Serbia	3.89	94	
95 El Salvador	3.87	84	
96 Zambia	3.87	96	
97 Seychelles	3.86	92	
98 Dominican Republic	3.86	101	
99 Kenya	3.85	90	
100 Nepal	3.85	102	
101 Lebanon	3.84	113	
102 Kyrgyz Republic	3.83	108	
103 Gabon	3.83	106	
104 Mongolia	3.81	98	
105 Bhutan	3.80	103	
106 Argentina	3.79	104	
107 Bangladesh	3.76	109	
108 Nicaragua	3.75	99	
109 Ethiopia	3.75	118	
110 Senegal	3.73	112	
111 Bosnia & Herzegovina	3.71	n/a	
112 Cape Verde	3.70	114	
113 Lesotho	3.70	107	
114 Cameroon	3.69	116	
115 Uganda	3.66	122	
116 Egypt	3.66	119	
117 Bolivia	3.60	105	
118 Paraguay	3.60	120	
119 Ghana	3.58	111	
120 Tanzania	3.57	121	
121 Guyana	3.56	117	
122 Benin	3.55	n/a	
123 Gambia, The	3.48	125	
124 Nigeria	3.46	127	
125 Zimbabwe	3.45	124	
126 Pakistan	3.45	129	
127 Mali	3.44	128	
128 Swaziland	3.40	123	
129 Liberia	3.37	n/a	
130 Madagascar	3.32	130	
131 Myanmar	3.32	134	
132 Venezuela	3.30	131	
133 Mozambique	3.20	133	
134 Haiti	3.18	137	
135 Malawi	3.15	132	
136 Burundi	3.11	139	
137 Sierra Leone	3.06	138	
138 Mauritania	3.03	141	
139 Chad	2.96	143	
140 Guinea	2.84	144	

Advanced Economies · Middle East, North Africa, and Pakistan · Emerging and Developing Asia · Latin America and the Caribbean · Commonwealth of Independent States · Emerging and Developing Europe · Sub-Saharan Africa

Note: The Global Competitiveness Index captures the fundamentals of an economy. Recent developments, including currency (e.g., Switzerland) and commodity price fluctuations (e.g., Azerbaijan, Qatar, Saudi Arabia), geopolitical uncertainties (e.g., Ukraine), and security issues (e.g., Turkey) must be kept in mind when interpreting the results.

1 Scale ranges from 1 to 7.

2 This shows the rank out of the 144 economies in the GCI 2014–2015.

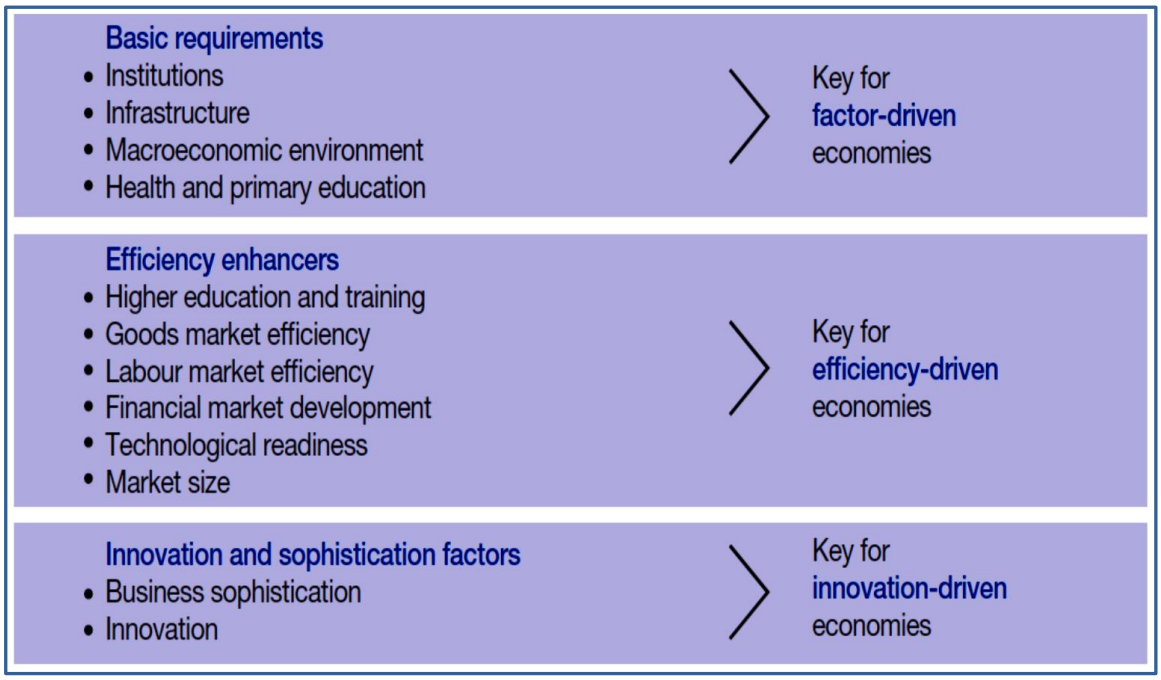
3 The trend line shows the evolution in percentile rank since 2007; breaks in the trend line reflect years when the economy was not included in the GCI.

Source: WEF (2015), The Global Competitiveness Report 2015-2016, p: xv.

2.2. The distribution of Arab countries among the three stages of development

In The Global Competitiveness Report each year, the WEF distributes countries across three stages of development. These stages are the factor-driven stage, efficiency-driven stage and innovation-driven stage. This classification of world economies is based on GDP per capita and the importance of natural resources in the economy. For each stage of development, there are basic requirements or elements to enhance competitiveness. For the factor-driven stage, basic requirements such as institutions, infrastructure, and macroeconomic environment are the key elements of competitiveness. For efficiency-driven economies, efficiency enhancers such as higher education and training, goods market efficiency and labour market efficiency are more important. For the third and final stage of development, innovation-driven economies, there is a greater role for factors like business sophistication and innovation in enhancing competitiveness, (Figure 1).

Figure 1: The requirements for each stage of development



Source: WEF (2013), The Arab World Competitiveness Report, p: 8.

Economies falling between two of these three stages are considered to be in a "transition stage". Table 2 shows the distribution of the world economies across each stage of development.

Table 2: World countries categories at each stage of development

Stage 1: Factor-driven (35 economies)	Transition from stage 1 to stage 2 (16 economies)	Stage 2: Efficiency-driven (31 economies)	Transition from stage 2 to stage 3 (20 economies)	Stage 3: Innovation-driven (38 economies)
Bangladesh	Algeria	Albania	Argentina	Australia
Benin	Azerbaijan	Armenia	Brazil	Austria
Burundi	Bhutan	Bolivia	Chile	Bahrain
Cambodia	Botswana	Bosnia and Herzegovina	Costa Rica	Belgium
Cameroon	Gabon	Bulgaria	Croatia	Canada
Chad	Honduras	Cape Verde	Hungary	Cyprus
Côte d'Ivoire	Iran, Islamic rep.	China	Latvia	Czech Republic
Ethiopia	Kazakhstan	Colombia	Lebanon	Denmark
Gambia, The	Kuwait	Dominican Republic	Lithuania	Estonia
Ghana	Moldova	Ecuador	Malaysia	Finland
Guinea	Mongolia	Egypt	Mauritius	France
Haiti	Nigeria	El Salvador	Mexico	Germany
India	Philippines	Georgia	Oman	Greece
Kenya	Saudi Arabia	Guatemala	Panama	Hong Kong SAR
Kyrgyz Republic	Venezuela	Guyana	Poland	Iceland
Lao PDR	Vietnam	Indonesia	Romania	Ireland
Lesotho		Jamaica	Russian Federation	Israel
Liberia		Jordan	Seychelles	Italy
Madagascar		Macedonia, FYR	Turkey	Japan
Malawi		Montenegro	Uruguay	Korea, Rep.
Mali		Morocco		Luxembourg
Mauritania		Namibia		Malta
Mozambique		Paraguay		Netherlands
Myanmar		Peru		New Zealand
Nepal		Serbia		Norway
Nicaragua		South Africa		Portugal
Pakistan		Sri Lanka		Qatar
Rwanda		Swaziland		Singapore
Senegal		Thailand		Slovak Republic
Sierra Leone		Tunisia		Slovenia
Tajikistan		Ukraine		Spain
Tanzania				Sweden
Uganda				Switzerland
Zambia				Taiwan, China
Zimbabwe				Trinidad and Tobago
				United Arab Emirates
				United Kingdom
				United States

Source: WEF (2015), The Global Competitiveness Report 2015-2016, p: 38.

Table 3 shows that how the Arab countries are distributed and how they are spread across all 5 groupings in 2015 compared to 2010.

Table 3: Arab countries distribution among stages of development

Stage 1: Factor-driven		Transition from Stage 1 to stage 2		Stage 2: Efficiency-driven		Transition from Stage 2 to stage 3		Stage 3: Innovation-driven	
2010*	2015**	2010*	2015**	2010*	2015**	2010*	2015**	2010*	2015**
	Mauritania	Kuwait	Kuwait	Jordan	Egypt	Bahrain	Lebanon	UAE	Bahrain
		Saudi Arabia	Saudi Arabia	Lebanon	Jordan	Oman	Oman		Qatar
		Algeria	Algeria	Tunisia	Morocco				UAE
		Morocco			Tunisia				
		Qatar							
		Egypt							
		Libya							
		Syria							

Source: * WEF (2010), The Arab World Competitiveness Review 2010.

** WEF (2015), The Global Competitiveness Report 2015-2016.

The Arab countries classified in the efficiency driven stage are characterized by solid institutional framework, stable macroeconomic environment, efficient markets, low levels of corruption and stronger corporate governance framework. The key strengths for the factor driven stage are stable macroeconomic environment, large market size, fairly well developed private institutions, good governance and satisfactory transport infrastructure. The countries classified in the innovation driven stage are characterized by good infrastructure, high penetration rates of new technology, efficient good markets and macroeconomic stability.

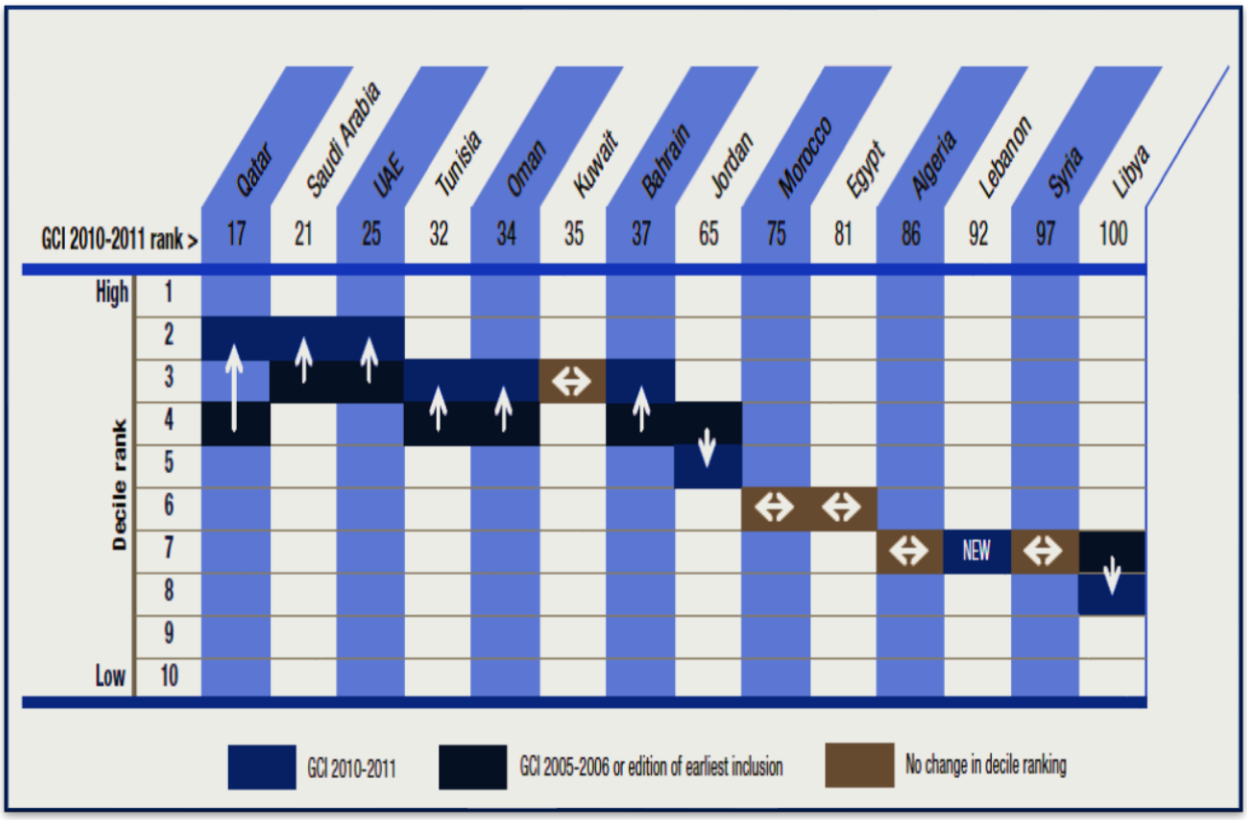
The civil unrest and political conflict conflicts which took place from the end of 2010, in some Arab countries, deteriorated or stopped the reform policies aimed at improving the competitiveness situation and global ranking, which had started in the first decade of this century, as outlined in Chapter 1. We will provide more elaboration of this issue in the next part of this chapter.

2.3. The competitiveness performance of Arab countries

The competitiveness ranking of 2015, for the Arab countries, differed markedly compared to the ranking of 2010. We explain these changes by noting that over the last 15 years the macro economic performance of Arab countries witnessed dramatic changes. Many Arab countries exerted continuous efforts over the period 2003-2009 to enhance their global competitiveness. As a result, the competitiveness score of the majority of Arab countries improved (WEF, 2010). This improvement is reinforced by three factors: favourable international economic environment, stable domestic macroeconomic and political environment and economic reform policies.

Furthermore, we analysed in Document 3 the evolution of the competitiveness performance of Arab countries, based on their ranking in the GCI over the period 2005-2010. This revealed that six Arab countries succeeded in improving their competitiveness ranking. These countries included all GCC countries except Kuwait, and one North African country (Tunisia). On the other hand, five other Arab countries did not achieve any progress in competitiveness (Kuwait, Morocco, Algeria, Syria and Egypt), while the competitiveness ranking of two other Arab countries (Jordan and Libya) declined during that period (figure 2).

Figure 2: Evolution of rankings of Arab countries from 2005 to 2010, by decile



Source: World Economic Forum, (2010)[25], The Arab World Competitiveness Review, p: 11.

When looking at the major driving forces behind the above changes in competitiveness, we can highlight the role of some major driving forces that helped some Arab countries to achieve a notable improvement in the GCI; and also refer to other areas of interest (bottlenecks and challenges) that should attract more attention from policy makers to achieve a better competitive performance.

After 2010, a radical transformation occurred for these factors, which harmed the competitiveness ranking of Arab countries. This included low oil prices and

[25] Refers to the year of issuance the report which used the data of 2009.

unfavourable internal developments. The macroeconomic performance deteriorated in some countries which witnessed political instability. This affected also neighbouring countries. As a result of these developments, there were no longer opportunities available for these countries to continue with the required economic policy reforms, either in terms of availability of necessary resources or suitable time. These reforms, which were planned to support the competitiveness ranking of these countries, aimed at reforming the labour markets, improving the levels of education and health services, and the liberalization of goods and services market. As a result of these shocks, the competitiveness ranking of Arab countries was noticeably different in 2015.

The majority of Arab countries took steps to enhance their global competitiveness, despite the region still being characterised by fragility and vulnerability to shocks; and given ongoing political unrest and security difficulties (WEF, 2015).

In addition, WEF (2015) also noted that, in spite of the diversity of their economies, most Arab countries are facing the challenge of job creation and appropriate employment opportunities for youth. In order to create more jobs, these countries need to establish a more suitable environment for the private sector to grow. In addition, the recent low oil prices raise the need for economic diversification and, again, to create a robust private sector.

Concerning sub regions, several GCC countries are now more competitive, thanks to fiscal surpluses accumulated and efforts exerted to improve their competitiveness

in earlier years. In 2015, the competitiveness ranking of Qatar improved to 14 out of 140 countries, against 17 out of 139 countries in 2010. The competitiveness of the United Arab Emirates improved significantly in 2015, to reach 17 out of 140, compared with 25 out of 139 countries achieved in 2010. More details are in Table 4.

Table 4: The Competitiveness ranking of Gulf economies

	2009*		2015**	
Economy	**Rank (out of 139)**	**Score (1-7)**	**Rank (out of 140)**	**Score (1-7)**
Qatar	17	5.1	14	5.3
Saudi Arabia	21	4.95	25	5.07
United Arab Emirates	25	4.89	17	5.24
Oman	34	4.61	62	4.25
Kuwait	35	4.59	34	4.59
Bahrain	37	4.54	39	4.52

*Source: WEF (2010).

**Source: WEF (2015).

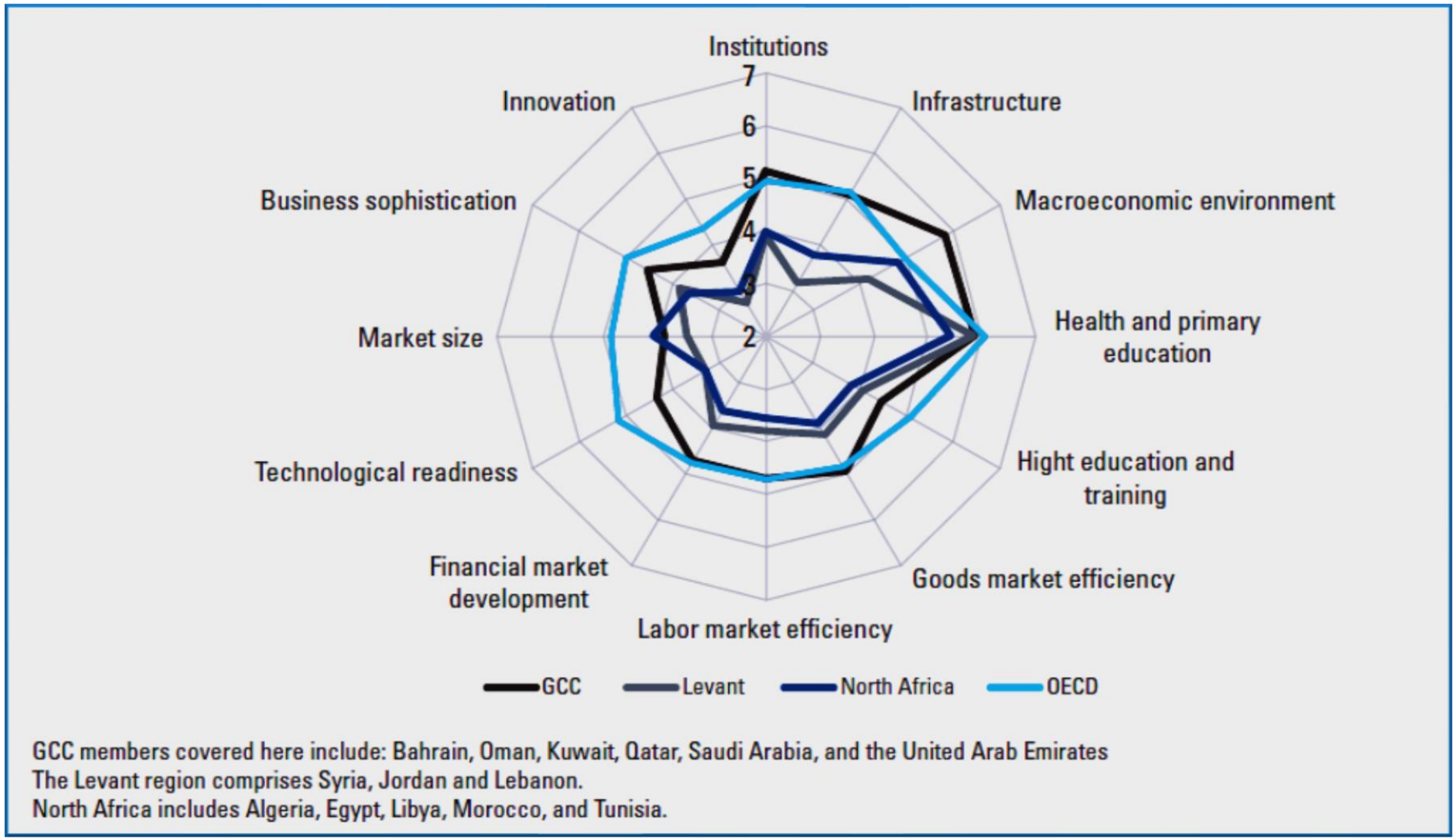
Table 4 shows that Gulf countries are ranked in the top half of the world competitiveness league, except Oman, which is ranked near the top of the second half. Improving competitiveness has been, in recent years, one of the top priorities for Gulf countries (WEF, 2011). They have tried to improve several aspects of national competitiveness, applying various measures and increased investment expenditures to improve the investment climate, thanks to high oil prices and

accumulated reserves. These investment expenditures have been directed mainly to improve the infrastructure and adopting mega projects, such as establishing underground systems, modern road networks, and most recently technology in telecommunication.

In addition, this group of countries has taken steps to diversify their economies. As a result, Bahrain, Qatar and United Arab Emirates are being sufficiently diversified to be classified as innovation driven in the 2015 WEF report. The rest of the economies in this group are less diversified as they still heavily dependent on oil and natural resources. Consequently, this group of countries needs more effort to diversify their economies in order to move into more advanced stages of development.

In Document 3 we stated that, compared with some other regional groups like the Organization of Economic Cooperation and Development (OECD), GCC countries succeeded in enhancing their competitiveness and were forerunners among the Arab countries in many aspects of competitiveness. They even outperformed the OECD countries in terms of institutions, macroeconomic environment and goods market efficiency. The GCC governments have made great efforts to improve their competitiveness over the last decade. As well as upgrading the level of their institutions above the OECD, governments provided efficient and transparent structures, physical security and corporate governance compliance with the highest standards. Also, GCC achieved a similar performance to the OECD in terms of infrastructure, health and primary education, goods market efficiency, labour market efficiency and financial market development (Figure 3). .

Figure 3: Competitiveness performance in Gulf countries, North Africa, Levant and OECD



GCC members covered here include: Bahrain, Oman, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates
The Levant region comprises Syria, Jordan and Lebanon.
North Africa includes Algeria, Egypt, Libya, Morocco, and Tunisia.

Source: World Economic Forum, (2010), The Arab World Competitiveness Review, p: 10.

The GCC countries benefited a lot from the oil revenues accumulated during the period 2003-2008 as a result of high oil prices and rising growth rates. This enhanced their competitive performance, led by Qatar. In addition, the policy space[26] created enabled GCC countries to enhance the macroeconomic environment and to have relatively solid financial systems. However, achieving an even higher competitiveness ranking will require GCC countries to make extended efforts to ensure the efficiency of labour markets, ensuring the soundness of financial sectors, fostering the use and absorption of new technology and encouraging innovation.

Regarding Levantine and North African economies, these countries face a state of uncertainty because of political transition and the waves of social protests which started at the end of 2010 (WEF, 2011). These circumstances affected economic performance badly and accordingly the competitiveness ranking of these countries. In addition, WEF (2015) showed that these two groups of countries lagged significantly behind Gulf countries. The Levantine countries were affected by the conflict and political unrest in Syria, which influenced the security everywhere in the region. North African economies are suffering from terrorist incidents, and the spillovers from the Arab Spring affected the latest positive developments in these countries.

[26] Policy space can be defined as the combination of de jure policy sovereignty and de facto national policy autonomy (Cooper, 1968; Bryant, 1980). In the above context, it refers mainly to the accumulated public budget surpluses, which enable the governments of these countries to enhance economic growth by spending more on infrastructure projects and supporting non-oil activities.

In 2015 the competitiveness ranking for the Levantine economies improved very slightly in Jordan, but deteriorated significantly for Lebanon, compared to 2010. The competitiveness performance of Jordan improved, to 64 out of 140 countries in 2015, against 65 out of 139 countries in 2009. The competitiveness ranking of Lebanon declined markedly, from 92 out of 139 countries, in 2010, to 101 out of 140 countries in 2015 (Table 5).

Table 5: The Competitiveness ranking of Levantine economies

	2010*		2015**	
Economy	**Rank (out of 139)**	**Score (1-7)**	**Rank (out of 140)**	**Score (1-7)**
Jordan	65	4.21	64	4.23
Lebanon	92	3.89	101	3.84

*Source: WEF (2010)

**Source: WEF (2015)

As for the North African countries, competitiveness deteriorated massively in 2015 for the majority of countries, except for Morocco, which witnessed improvements, and Algeria, which declined one step back in the ranking. In 2015, the competitiveness performance of Tunisia and Egypt declined, to reach 92 and 116 out of 140 countries, compared with 32 and 81 out of 139 countries in 2010. This drop resulted from the political unrest which affected badly the economic performance of all economic sectors; and the influence of terrorism incidents on infrastructure and tourism. In addition, the competitiveness ranking of Algeria declined from 86 out of

139 countries in 2009, to 87 out of 140 countries in 2015. Low oil prices impacted investment expenditures, used to improve the infrastructure and business climate. However, the competitiveness performance for Morocco rose from 75 out of 139 countries in 2009, to 72 out of 140 countries in 2015. This came as a result of the procedures adopted to improve the investment climate (see Chapter 1), which attracted multinational enterprises to invest in Morocco, especially in car manufacturing. Much further down, in 2015 Mauritania was ranked 138 out of 140 countries (Table 6).

Table 6: The Competitiveness ranking of North African economies

	2009*		2015**	
Economy	**Rank (out of 139)**	**Score (1-7)**	**Rank (out of 140)**	**Score (1-7)**
Tunisia	32	4.65	92	3.93
Morocco	75	4.08	72	4.17
Algeria	86	3.96	87	3.97
Egypt	81	4.0	116	3.66
Mauritania* **	-	-	138	3.03

*Source: WEF (2010)

**Source: WEF (2015)

***Not included in the report which cover the year 2009.

When we compare the competitiveness performance of the Levantine countries (Syria, Jordan and Lebanon) and North African countries with OECD countries, we

find that the performance of these countries lagged behind the performance of the OECD in many aspects of competitiveness, but with a similar performance to each other in most of the twelve competitiveness indices, except for infrastructure, macroeconomic environment and market size, where the North African Arab countries outperformed the Levantine Arab countries (Figure 3).

More details about the competitiveness performance for individual Arab economies is provided in Annex 2/1. This Annex provides more analysis for the competitiveness performance for each Arab country included in the WEF 2015 report, compared with the report of 2010. In addition, it provides discussion of the policies and measures adopted, together with the advantages and disadvantages present in each Arab country.

Overall, the macroeconomic performance of Arab countries over the last 15 years, varied enormously. Many Arab countries exerted continuous efforts over 2003-2009 to enhance their global competitiveness. As a result, the competitiveness score of the majority of Arab countries had improved by 2010. This was underpinned by three factors: a favourable international economic environment, stable domestic macroeconomic and political environment and economic policy reforms.

The competitiveness rankings of the Arab countries in 2010 were, however, influenced by high oil revenues in Arab oil-exporting countries and economic reforms in the Arab oil-importing countries, which enabled them to enhance their global competitiveness ranking. The main driving factors were high oil revenues

(especially the GCC countries) and stable macroeconomic environment. On the other hand, the negative factors impacting the ranking of some countries were high levels of public debt and inflation rates, underdeveloped infrastructure, inefficiency of goods, labour and financial markets and the low level of technological readiness.

After 2010, low oil prices and unfavourable internal developments affected Arab countries' competitiveness negatively. For some, macroeconomic performance was affected by political unrest. As a result, opportunities were lost for these countries to continue implementing the required economic reform policies, both in terms of availability of necessary resources or suitable time. The majority of Arab countries took steps to enhance their global competitiveness, despite the region being characterised by fragility and vulnerability to shocks, political unrest and security difficulties.

In spite of the diversity of their economies, most Arab countries are facing the challenge of job creation and appropriate employment opportunities for youth. In order to create more jobs, these countries need to establish the suitable environment for the private sector to grow. In addition, recent low oil prices raise the need for economic diversification and a robust private sector.

Chapters 1 and 2 have sought to provide motivation for the analysis later on, by introducing the macroeconomic policies adopted to improve the competitiveness of Arab countries; and by looking at the impact of these reforms, and exogenous economic factors, on the global competitiveness rankings of these countries. The

next chapter discusses competitiveness specifically, looking at various concepts and theories. This will include introducing competitiveness definitions, Competitiveness Indexes, competitiveness in economic theory, and empirical work conducted to measure the competitiveness of countries globally. The last part will complement this, by looking at theories of foreign direct investment.

Chapter 3

Competitiveness: concepts and theories

The study of competitiveness – in particular the notion of the relative competitiveness of nations – has recently seen renewed interest. This can be dated to 1990. In February 1993, American President Bill Clinton presented his first economic programme and spoke of "…. a global economy in which we must compete with people around the world" (Pederson, 2008, p.2). Moreover, Jacques Delors, the President of the European Commission, raised the issue of competitiveness between Europe and the USA in Copenhagen in June 1993. These came three years after Michael E. Porter had published The Competitive Advantage of Nations (1990), (Pederson, 2008).

Since then, the term "competitiveness" has been used broadly and been subject to much debate. However, Krugman (1994) was strongly against the idea, describing all the discussion about the competitiveness of nations as "a dangerous obsession". According to Krugman, the economic crisis facing any country is not necessarily one of competing on world markets. In other words, the competitiveness between USA and Japan is not like competitiveness between Ford and Toyota. Krugman thinks that it is incorrect to believe that the economic fortunes of any economy are dependent on its achievements on international markets. Another problem is that the term competitiveness tends to create the impression of a zero-sum game, but, in fact, there are shared benefits to be realized from each country becoming more competitive.

The first part of this chapter will present key competitiveness definitions published in the economic literature. The next part will focus on Competitiveness Indexes, and we will introduce one of the most well-known indexes of competitiveness in the economic literature, from the World Economic Forum (WEF) and called the Global Competitiveness Index (GCI). After that, the third part of this chapter will consider the presence (or not) of competitiveness in economic theory. Then, the empirical work conducted to measure the competitiveness of the world countries will be provided in the fourth part. The last part of this chapter will consider theories of FDI.

3.1. Definitions of Competitiveness

As the idea of the international competitiveness of nations has taken hold, so the challenge of defining it has arisen, along with attempts to measure it. The annual Global Competitiveness Report (GCR) of World Economic Forum (WEF) is the best-known of these attempts. More details will be given below of the GCR indicators. The WEF (2011, p.4), has defined such competitiveness as:

> "the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the sustainable level of prosperity that can be earned by an economy. In other words, more competitive economies tend to be able to produce higher levels of income for their citizens. The productivity level also determines the rates of return obtained by investments in an economy. Because the rates of return are the fundamental determinants of the growth rates of the economy, a more competitive economy is one that is likely to grow faster over the medium to long run. The concept of

> competitiveness thus involves static and dynamic components: although the productivity of a country clearly determines its ability to sustain a high level of income, it is also one of the central determinants of the returns to investment, which is one of the central factors explaining an economy's growth potential".

It is essential to note that according to this definition, productivity growth is the only determinant for growth in the standard of living of the people of a country, not its productivity growth compared with other countries. Specifically, real wages in a specific economy will be equal to its own labour's marginal product, which reflects the absolute growth rate of its productivity. In other words, an increase of productivity in any country will not be related to another country's standard of living (WEF, 2011). Instead, the difference between the growth of productivity in a specific country and other countries will be reflected in the exchange rate trend and, consequently, will be reflected in the competitiveness of this country (Krugman, 1996). By and large, the growth rate of standard of living will not increase for a country that does not show an increase in its productivity compared to the rest of the world. A caution to this argument, however, is that if productivity in a particular economy grows more slowly than in other countries, in specific sectors where this country concentrates its exports, subsequently this productivity differential could lead to a harmful terms of trade effect on this country's real income levels (WEF, 2011).

Whilst the GCR is at the forefront of the study of international competitiveness, it is not the only body to have tried to define the concept. In the following table we

present a small sample of the available definitions of the competitiveness of a nation (Aiginger, 2006, pp.166-167):

Source	Definition
Aiginger(1998)	"Competitiveness of a nation is the ability to (i) sell enough products and services (to fulfil an external constraint); (ii) at factor incomes in line with the (current and changing) aspiration level of the country; and (iii) at macro-conditions of the economic, environmental, social system seen as satisfactory by the people."
Competitiveness policy council (USA, 1994)	"The ability to sell products on international markets, while incomes in the domestic markets increase in sustainable way."
European commission (1994)	"The ability to "combine growth with balanced trade".
European commission (1995)	"..ability to increase or to maintain the living standard relative to comparable economies (e.g., developed industrialised countries), without long run deterioration of external balance."
European commission (1998)	"An economy is competitive if its populations can enjoy high standards of living and high rates of employment while monitoring a sustainable external position."

European commission (2001)	"The ability of an economy to provide its population with high and rising standards of living and high rates of employments on a sustainable basis."
IMD (1994)	"World competitiveness is the ability of a country or a company to, proportionally, generates more wealth than its competitors in the world markets."
Krugman (1996)	"It seems far too cynical to suggest that the debate over competitiveness is simply a matter of time-honoured fallacies about international trade being dressed up in new and pretentious rhetoric."
OECD (1995a)	"Competitive policy …(is) supporting the ability of companies, industries, regions and nations or supra-national regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis."
OECD (1995b)	" …the ability of companies, industries, regions, nations or supra-national regions to generate, while being and remaining opposed to international competition, relatively high factor income and factor employment levels."

OECD/TEP (1992)	"To produce goods and services that meet the test of foreign competition while simultaneously maintaining and expanding domestic real income."
Oughton and Whittam (1997)	"Long run growth in productivity and hence rising living standards, consistent with increasing employment or the maintenance of near full employment."
Porter (2004)	"True competitiveness, then is measured by productivity …Here, we define competitiveness concretely, show its relationship to a nation's living standard…The micro-economic foundations of productivity rest on… the sophistication of competition in the country… and the quality of micro-economic business environment in which they operate."
Porter (1990)	"The only meaningful concept of competitiveness at the national level is national productivity."
von Tunzelmann (1995)	"Historians have tended to equate competitiveness… with political, technical, commercial leadership."
WEF (2000)	"Competitiveness is the set of institutions and economic policies supportive of high rates of economic growth in the medium term."

The majority of these definitions agree that productivity is considered as one of the central determinants of competitiveness since productivity, in turn, will determine the growth rate of standard of living. In other words, an increase in productivity will lead to a higher growth rate in standard of living and employment. The GCR defined competitiveness as the set of institutions, policies, and factors that determine the level of productivity which, in turn, will set the level of income for the people of a country. On the other hand, the majority of definitions in the above sample have defined competitiveness by focusing on achieving higher standards of living, in addition to high employment rates on a sustainable basis, through producing and selling products and services in international markets.

The definitions of GCR and OECD (1995a) place more attention on the supportive policies of governments that aim to create an attractive environment for firms to improve the competitiveness of nations. This improved competitiveness will be reflected in the economic growth rate and the standard of living of the people.

On the other hand, von Tunzelmann (1995) emphasises different types of leadership (by governments) as the only determinant for competitiveness. We can consider leadership as one of the determinants of competitiveness along with other supportive policies, to generate a more attractive environment for firms to compete in. These policies will be reflected in the economic growth of the country.

In addition, Krugman (1996) describes the linkages between competitiveness and international trade as a fallacy. He mentions in his work that he does not believe in

competitiveness and wonders why there are a lot of competitiveness councils around the world. Also, he wonders why people have linked international trade and competitiveness. However, higher levels of international trade will lead to more competitiveness and more economic growth for the country, the best examples of which are China and East Asian countries.

The other definitions emphasise more the impacts of competitiveness which will impact on the economic growth rate, then through to the level of income of individuals. These definitions do not give attention to the supportive policies which should be taken by governments in order to construct an attractive environment for firms to improve the competitiveness of nations.

3.2. Competitiveness Indexes

There are many competitiveness indexes existing in the economic literature which are prepared by different international and private organizations. The main benefit of these indexes is that they give a detailed picture about the economic and social performance of each country. One of the most famous competitiveness indexes is published by the World Economic Forum (WEF): the Global Competitiveness Index (GCI). Every year WEF prepares this index and publishes it in "The Global Competitiveness Report". This index consists of 12 pillars of competitiveness. The weighted average of these 12 pillars provides the GCI. We consider these 12 pillars briefly here – for more details see The Global Competitiveness Report (WEF, 2011, pp.4-8).

1. Institutions

There is no doubt that the economic performance and competitiveness of any country is related to the existence of robust legal and administrative frameworks. Within the context of of the GCI, the institutional environment is determined and, consequently people, companies, and governments act together to create income and wealth in order to increase the economic growth of the country.

2. Infrastructure

A high level of infrastructure plays a key role in the performance and efficiency of business operations. In addition, good quality infrastructure decreases the costs of doing business, such as the cost of transportation, communication, and energy, in order to increase the competitiveness and economic growth of the country.

3. Macroeconomic stability

Theoretical and empirical studies have shown that macroeconomic stability is one of the main elements required for economic growth. Competitiveness is further enhanced as macroeconomic stability is important for business. The volatility of prices and interest rates raise credit costs and lead to uncertainty.

4. Health and primary education

Healthy and educated workers are considered essential for a country's competitiveness and productivity, across all economic sectors. The quantity and quality of basic education received by the people are taken into account in this pillar.

5. Higher education and training

The existence of a highly qualified labour force is seen as a prerequisite for attracting advanced technology, which is very important for improving the business environment and economic growth. The availability of higher education and good training is essential for countries that would like to move up the value chain beyond simple production processes and products. Secondary and tertiary enrolment rates, together with the quality of education, are measured in this pillar.

6. Goods market efficiency

Market efficiency is one of the main factors affecting business productivity, requiring healthy market competition. In this context firms will produce goods required by customers of high quality. The most efficient use of factors such as labour and financial resources are assessed within this pillar.

7. Labour market efficiency

It is important to make sure that labour force is allocated in the most efficient way in the economy, and motivated to do their best in their work. This also requires labour market flexibility. Further, the relationship between labour motivations and their efforts must be clear.

8. financial market sophistication

The financial crisis has highlighted the fundamental role a sound and well-functioning financial sector plays for economic activity. An efficient financial sector assigns a nation's resources in the most productive way. It distributes financial resources to those projects with the highest returns. As a result, countries need sophisticated financial markets that can make capital available for private-sector investment from such sources as loans from a sound banking sector, properly regulated securities exchanges, venture capital, and other financial products. This requires a dependable and transparent banking sector.

9. Technological readiness

This pillar measures the ability of a country to adopt existing technologies, to improve industrial productivity, especially information and communication technologies (ICT).

FDI plays an important role as a major source of foreign technology. It is essential to differentiate between the level of technology available to firms in a country and the ability of the country to innovate and expand the frontiers of knowledge. This is why technological readiness is separated from innovation, which is introduced in the 12th pillar.

10.Market size

Productivity is affected by the size of the market, since large markets allow firms to exploit economies of scale. Further, the borders of countries limit the size of markets, but globalization has helped to overcome this limitation. There are many empirical studies demonstrating that openness of trade is positively linked with economic growth.

In order to measure market size in this pillar, domestic and foreign markets are included. Credit is given to export-driven economies and geographic areas (such as the European Union) that consist of multiple countries in a single common market.

11.Business sophistication

Sophistication of business leads to greater efficiency in the production of goods and services. This, consequently, increases productivity and improves the competitiveness of a country. This pillar is concerned with the quality of a country's

overall business networks and the quality of individual firms' operations and strategies.

12.Innovation

In spite of the considerable benefits to be gained by improving institutions, building infrastructure, reducing macroeconomic instability and improving human capital, all of these factors exhibit diminishing returns. So too do factors of efficiency of labour, financial, and goods markets. Technological innovation is required to improve standards of living in the long term. Developing countries can enhance their productivity by applying new technologies.

In conclusion, we can see that all 12 criteria are related to domestic conditions and are thus under the influence of a nation's government. Thus the government can adopt suitable policies to generate a competitive environment able to attract domestic and international investors which can lead to a more competitive economy. It is important to note that the determinants of competitiveness have been derived from definitions of competitiveness. Macro and micro economic indicators are the main determinant for the competitiveness of nations. Macroeconomic indicators included in the above definitions of competitiveness comprise GDP growth, GDP per capita, productivity, and other macroeconomic policies which can improve the competitiveness of nations, reflecting also on the other competitiveness indicators. Moreover these definitions included microeconomic policies adopted to construct an attractive environment for firms to operate, as reflected in microeconomic indicators.

3.3. Competitiveness in economic theory

3.3.1. Trade theories

In this part a brief overview of trade theories will be presented, including their implications for competitiveness as defined above. These theories include classical theory, neoclassical theory, and new trade theory. Each contains implications for the idea of competitiveness.

Classical theory. In this theory. specialisation in the manner of Adam Smith's 'division of labour' provides for economies of scale and differences in productivity across countries. Smith argued that capital investment, in the form of machines, and trade, in the form of increasing market size, facilitates this specialisation and increases productivity and growth. In addition, the increase in growth leads to more division of labour and consequently more growth. Krugman and Obstfeld (2003) argued that Adam Smith's theory of absolute advantage in 1776 was the first one to clarify why nations give attention to international trade. Adam Smith explained the benefits from trade to be gained when countries move from a closed economy situation to an open economy (free trade) when nations have an absolute advantage in the manufacture of different goods. These benefits could be achieved when countries produce goods using fewer inputs. In this case, the countries with an absolute advantage in the production of certain goods will thus export them. Similarly, nations should import commodities that other countries can export at lower prices than they can produce at. Therefore the absolute productivity differences among countries create international trade. This was seen as a direct challenge to the mercantilists of the 16th century. Mercantilists regarded trade as a zero sum game. They thought that countries should increase their exports and

minimise imports to be more rich and powerful. This was because exports would bring in gold and silver, increasing the wealth of a country. Mercantilists supported strict government control and preached economic nationalism (Salvatore, 2002).

Moving away from Adam Smith's concept of absolute advantage , David Ricardo (1817) explained that two countries could gain from trade, even if one has an absolute advantage in the production of both, if they each concentrate in producing goods for which they have a comparative advantage. Within the model of David Ricardo, the differences among industries and nations in production technology increase the differences in comparative labour productivity. Consequently in accordance with comparative advantage, a country ought to specialise in producing those goods that it can produce more efficiently compared to other goods (Krugman and Obstfeld, 2003). This theory is therefore underpinned by the concept of opportunity cost.

Krugman (1990) argues that the theory of comparative cost advantage has received widespread support in explaining the benefits from trade, in spite of it being based on a set of severe assumptions. Also, the majority of World Trade Organisation (WTO) principles are derived from the law of comparative advantage (Root, 2001). The general validity of the theory is not affected by the easing of the majority of the assumptions in any substantial way (Harkness, 1983; Balassa, 1965). These theoretical considerations are supported by the availability of much empirical evidence (Krugman and Obstfeld, 2003).

The usefulness of comparative advantage is revealed from the notable amount of valuable information that it provides clearly and concisely. Salvatore (2002) mentions that comparative advantage demonstrates the conditions of production, the autarky point of production and consumption, the equilibrium relative commodity prices in the absence of trade, the comparative advantage of each country, the degree of specialisation in production with trade, the volume of trade, the terms of trade, and the gains from trade. In addition Krugman (1992) states that the theory shows clearly why trade is a positive sum game.

On the other hand, the theory of comparative advantage does not explain the location or source of these advantages. Nor does it therefore clarify the direction of trade. For this reason economists needed a model which developed comparative advantage, in order to clarify these issues.

The main assumptions of **neo-classical theory** explain the required conditions for perfect competition in the world. Salvatore (2002) presents Heckscher-Ohlin (H-O) theory as an essential theory to clarify the causes of comparative advantage differences between countries. The H-O model (or factor-proportions model) extended Ricardo's model by including two factors of production. The model included capital and labour as with Ricardo. The Ricardian model supposes that there are technological differences between nations, whereas the H-O model supposes that technologies are the same between nations and that comparative advantages are derived from differences in the relative abundance of production factors.

Leontief (1953) was the first who conducted empirical studies to test H-O theory. He could not confirm the United States as an exporter of capital intensive goods and an importer of labour intensive goods; indeed the results suggested the opposite. Baldwin (1971) has helped explain the paradox later. He showed that the capital ratio was higher than labour ratio for imports compared with exports. Similar results were found for analyses of trade by Japan, Germany, India and Canada (Baldwin, 1979).

The Leontief Paradox motivated economists to search for other clarifications of H-O theory. Baldwin (1971) presented one of the most important of these clarifications, by introducing differences in human capital. Also, the product cycle theory (Vernon, 1966) and technology gap theory (Gold, 1981) include time as a dynamic extension to the basic H-O theory. In product cycle theory, Vernon stated that the majority of manufactured goods have a product cycle: introduction, growth, maturity, and decline. The comparative advantage of these products moves between countries over time. Whereas, according to technology gap theory, the technology level of an economy is linked to its level of innovation. New products are manufactured in the country that has high level of technology and innovation, until other countries can be trained to manufacture these products. Therefore there is a time-lag before imitation of the new products becomes possible.

New trade theory. Traditional trade theory -classical and neo classical-could not clarify why two-way trade in similar goods occurs between similar nations, especially rich countries. It assumed instead that trade will happen between dissimilar countries, based on different technology or factor endowments. Since the second world war, however, trade occurred increasingly between industrialised

countries, with similar production structures and factor endowments (Krugman, 1990). Such "intra-industry trade" (IIT)[27] between industrialised countries could not be explained by theories derived from comparative advantage (Krugman, 1986). This led to the appearance of new trade theory. This explained IIT with reference to scale economies, product differentiation and imperfect competition.

Grubel and Lloyd (1975) showed the importance of IIT between industrialised countries with similar factor endowments. In addition, they created an index by which the degree of IIT could be measured. They confirmed in their study that the H-O model was unable to provide sufficient explanation for the phenomenon of IIT. Therefore the authors concentrated on "preference diversity" as a source of trade. Grubel and Lloyd argued that the existence of local demand for different varieties of the required products encouraged the import of different varieties of the same basic product in order to satisfy differences in consumers' tastes and preferences.

Two further important contributions to the empirical studies of the IIT came from Dixit and Stiglitz (1977) and Lancaster (1979). Dixit and Stiglitz constructed a model for "product variety" when the economy is described as monopolistic rather than perfectly competitive. They argued that the variety of products is determined by the consequences of the free entry process. Therefore, people will enjoy unlimited gains from product variety. Lancaster (1979) developed another model for "product

[27] Intra-industry trade is two-way trade in products that belong to the same industry. As it has been noted, "intra-industry trade (IIT), that is trade of similar products, has been a key factor in trade growth in recent decades. These trends have mostly been attributed to the fragmentation of production (outsourcing and offshoring) as a result of globalisation and new technologies" (Handjiski et al, 2010, p.15).

variety", based on the characteristics of the products and the preferences of each consumer. Lancaster argued that the preferences of consumers are different regarding bundles of characteristics present in similar, but not identical, goods – as a result of which they prefer some products than others. Within this context, low cost and free entry for different specifications and varieties are seen as vital motivations for trade.

In the literature the degree of IIT is determined by the income levels of trading partners. High income raises the demand for differentiated goods. On the supply side, IIT will increase with income if we assume differentiated goods, in general, to be more capital intensive than homogeneous goods and interpret a high per capita income as a high capital labour ratio, (Hellvin, 1996, p.18). Moreover, there are two "types" of IIT, horizontal intra industry trade (HIIT) and vertical intra industry trade (VIIT). HIIT model occurs between countries with high and similar per-capita incomes (north-north IIT). VIIT occurs between countries with different levels of per-capita income (north-south IIT) (Hellvin, 1996). The difference between HIIT and VIIT is that HIIT takes place under conditions of scale economies and imperfect competition, whereas VIIT can clarify IIT without recourse to economies of scale and imperfect competition (Tharakan and Kerstens, 1995).

There are three models for HIIT, the neo-Chamberlinian, neo-Hotelling and Eaton and Kierzkowski models. The first two models are similar as they exist under the condition of monopolistic competition, but they differ in the treatment of consumer preferences (Krugman, 1980; Helpman 1981). The third model was constructed by Eaton and Kierzkowski (1984) under conditions of oligopoly. The authors

considered oligopolistic markets as a distinct market within HIIT. Greenaway (1987) states that the Eaton and Kierzkowski model assumed entry into the market is open for differentiated goods. Moreover, if any producer believes in making gains, he can enter the market.

There are two models existing for VIIT. The first is the "neo-Hecksher-Ohlin model" constructed by Falvey (1981). In this model, Falvey demonstrated that VIIT may exist in conditions of many companies producing different products with different varieties and qualities under perfectly competitive markets. The second VIIT model was developed by Shaked and Suttan (1984). The model of Shaked and Suttan provide an illustration that VIIT may exist in markets which are characterized by the existence of a small number of companies under natural oligopoly.

3.3.2. Micro Economic Theories

In addition to the foregoing, the understanding of regional competitiveness also requires insights in complementary perspectives that can be derived from microeconomics. The following three concepts will be presented:

A. Urban growth theory
B. Business strategy economics
C. Schumpeterian / evolutionary economics

Urban growth theory: Jane Jacobs' theory of urban growth is a very important contribution from an economic and sociological viewpoint. Jacobs (1969) considered the urban system (city-regions) as the most essential field for the

formation and accumulation of economic wealth. Urban systems create increasing profits which reduce search expenses. The empirical studies that supported this theory concluded that higher growth rates are linked with more economic diversification in the economy (Feldman, 2002).

Business strategy economics: The cluster theory of Michael Porter is regarded as the most influential contribution for business strategy economics. Porter (1990) stated that for firms to be more competitive, they must develop and adopt an effective way in their operations, in addition to following distinctive strategic positions. Porter argued that these requirements for firm competitiveness could be encouraged by geographical clusters or by the creation of regionally-based relational assets external to individual firms but of main gain to their competitive performance (Porter, 1990).

Schumpeterian/evolutionary economics: The entrepreneurship theory of Joseph Schumpeter (1911) argued that entrepreneurs are driven to make technical and financial innovations and that the spurts of activity resulting from these innovations create economic growth. Through emphasizing innovation and change in technology as important factors producing economic growth, Schumpeterian theory shows a new set of areas for policy intervention beyond the very limited range of neo-classical theory.

Grossman and Helpman (1991) stated that within the context of Schumpeterian theory, firms have a motivation to apply innovative activities in the hope that new technologies will create profits. In order to connect innovation with the development

of new products that are of higher quality, the authors introduced the idea of the "quality ladder": by a process of product improvement and imitation, developed and then less developed countries climb up the quality ladder. Therefore firms and nations that climb up the quality ladder can afford higher wages by offering higher quality. It is interesting to note that reference to, respectively, diversification, technological innovation and quality differentiation, all three of these theories include elements consistent with intra-industry trade – both horizontal and vertical.

Innovation, in a wider view, involves developing new products and processes, but also using technology to enhance the performance of logistics, distribution and marketing. In addition, innovation could similarly be used for changes that are new to the domestic economy. Therefore, innovation is considered as a part of economic development, (Fagerberg et al., 2010). They also considered access to knowledge as a key component for economic development in developing countries.

He also stated that economists have concentrated on accumulated capital per worker to describe the changes in income or productivity of the economy, starting over two hundred years ago with "classical political economy". Moreover, Fagerberg et al. (2010) stated that Solow (1956), in his theory of neoclassical growth, derived productivity growth results from increases in the amount of capital per worker. Solow also used technological progress as an exogenous variable to explain long run growth in GDP per capita. The results of Solow's model indicated that GDP per capita will increase in the long run in all countries by the same ratio, as he assumed that technology was a public good that was available everywhere. But Fagerberg et al. (2010) stated that the only variable absent from the Solow model which can

explain the differences in GDP per capita growth between countries is transitional dynamics, as the initial conditions vary from one country to another.

Fagerberg et al. (2010) have argued that economic historians were the first who tried to relate differences in economic development with differences in technology or knowledge. They stated that some economists used the term “absorptive capacity” to refer to the ability of the economy to absorb new investments. They also added that “technological capability” consists of production capability, investment capability and innovation capability. All of these aspects are required: to adjust production according to changing market circumstances, to create new productive facilities and adapt project strategies to suit the investment circumstances, and to create new technology in order to develop new products or services that better fulfil market requirements. Fagerberg et al. (2010) stated that Lall (1992) claimed that technological capability depends on domestic technological efforts and foreign technology acquired through imports or FDI.

Moreover, Fagerberg et al. (2007) assumed that technology is cumulative, but also context-dependent in terms of how it is able to spread in each country. This then affects the spread of the benefits from innovation. In addition they stated also this does not mean that the transfer of technology from developed countries cannot serve as a powerful factor behind growth and competitiveness in low-income countries. Economic historians have argued that the transfer of knowledge and technology will enable developing countries to imitate the developed countries in using more advanced technologies. Fagerberg et al.(2007) built a model based on Schumpeterian logic and assumed that the exports of the economy depended on four aspects: (1) its

technological competitiveness (its knowledge assets relative to competitors); (2) its capacity to exploit technology commercially (again relative to competitors); (3) its price competitiveness (relative prices on tradeables in common currency); and (4) world demand.

Fagerberg et al. (2007) also identified four factors that affect economic performance: technology competitiveness, capacity competitiveness, price competitiveness, and demand competitiveness. Technology competitiveness is the ability of the economy to compete successfully in international markets for new goods and services. This kind of competitiveness is associated with the innovativeness of the nation. The second factor, capacity competitiveness, is the ability to exploit new technology to sustain the competitiveness of the country. They explained this variable highlighted by three general aspects: technical/organizational competence, availability/quality of financial institutions/markets, and quality/efficiency of governance. The third factor, price competitiveness, emphases mainly price and/or cost comparisons. A commonly-used indicator for price competitiveness is the growth of unit labour costs in manufacturing. The last factor, demand competitiveness, means that the composition of world demand affects the production and trade structure of the economy.

3.4. Competitiveness: the empirical literature

The World Economic Forum (WEF) and the Institute for Management Development (IMD) are the most well-known sources for measures of national competitiveness.

In their studies they rely on existing data, primarily gathered by government, and dedicated large-scale global surveys of senior executives:

- **World Economic Forum's Global Competitiveness Report:**

The complexity of measuring national competitiveness is demonstrated by the WEFs Global Competitiveness Report (GCR), which has two sets of indices:

(a) The Current Competitiveness Index uses microeconomic indicators to measure the set of institutions, market structures, and economic policies supportive of high current levels of prosperity.

(b) The Growth Competitiveness Index focuses on global competitiveness as the set of institutions and economic policies supportive of high rates of growth in the medium term (next five years).

The Current Competitiveness Index is an aggregate measure of microeconomic competitiveness. The index is divided into two sub-indices. One sub-index measures company sophistication and the other measures the quality of the national business environment. The Growth Competitiveness Index focuses on measures relating to technology, public institutions and the macroeconomic environment. For details on how each of these measures is quantified, please see the GCR.

- **IMD's World Competitiveness Yearbook**

The IMD's World Competitiveness Yearbook (WCYB) argues that competitiveness needs to balance economic imperatives with the social requirements of a nation as they result from history, value systems and tradition. The study places emphasis on

GDP per capita as an indicator of overall competitiveness. The WCYB ranks and analyses the ability of nations to provide an environment in which enterprises can compete. The research focuses on the competitiveness of the economic environment and not a nation's overall economic competitiveness (performance). A total of 249 measures are grouped into eight input factors: domestic economy; internationalisation; government; finance; infrastructure; management; science and technology; and people. Economies are ranked according to their performance against each of these measures. The data are standardised and weighted in a consistent fashion and are used to compute rankings and indices of the competitiveness environments of national economies. The yearbook identifies 47 macroeconomic and microeconomic factors, sub-divided by 8 input factors, that it contends are the most important for a competitive environment. It also identifies the 20 strongest factors for a competitive environment in each country. For more details on the actual measurement of these indicators, please see the World Competitiveness Year Book.

3.5. Theories of Foreign Direct Investment

In the **economic literature**, the term "Foreign Direct Investment (FDI)" has been tackled through two approaches:

- The traditional theory of multinational enterprises.
- Models of new trade theory.

We provide a brief review of these two approaches, which are central to any literature review on FDI and the business environment.

The traditional theory of multinationals

The pioneer of multinational firms theory was Hymer, who prepared his doctoral dissertation on this topic in 1960, and which was published in 1976 (Yamin, 1991). Hymer was the first to write about the idea that an enterprise whose operations are located in more than one economy faces additional costs compared with an enterprise located in just one economy. The enterprise, to overcome these extra costs, must have specific advantages it holds over its competitors. He argued that these advantages are mainly represented by economies of scale or superior production technology.

Two years earlier (in 1958), the second important work, by John Dunning was published. Hymer (1976) cited Dunning's work in his PhD thesis. Dunning (1958) conducted empirical analysis on the manufacturing operations of US enterprises in the UK. The results revealed that these manufacturing enterprises in general paid higher wages and had higher rates of labour productivity and new product innovation than their UK competitors.

Since then, many empirical studies have been conducted to investigate the firm-specific advantages that promote FDI. Buckley and Casson (1976) observed that multinational enterprises move from their home country according to the advantages and opportunities provided. In addition, internalisation advantages must exist to attract FDI (like market opportunity) beyond alternatives such as exporting or licensing. Dunning stressed that internalisation advantages must be related to both firm-specific and locational advantages in order to clarify those factors attract FDI

(Dunning, 1988). The author used the "OLI paradigm" (Ownership, Locational, Internalisation advantages) or "eclectic theory" as the preferred name. The "OLI paradigm" has been widely used and many of the theoretical and empirical studies conducted on the multinational enterprises used this theory as a reference.

In line with Dunning (1988), the OLI paradigm's major hypothesis is that an enterprise will engage in foreign value-adding activities if and only if three factors are fulfilled. Firstly, the enterprise should possess net ownership (O) advantages in comparison with other enterprises serving specific host markets. Ownership advantages can take the form of trademark or production technique, entrepreneurial skills or returns to scale. Secondly, the enterprise itself should get benefit from these advantages, rather than producing through a joint venture arrangement such as licensing. These advantages are entitled internalisation (I) advantages. Third, there must be some factor inputs which do not exist in the national economy of the enterprise such as raw materials, low wages or special taxes or tariffs. These advantages are called locational (L) advantages of economies or countries.

Moreover Dunning (1998) reported four motives for FDI: market, efficiency, resource, and asset seeking. Concerning market and efficiency seeking investment, a trade off between closeness to market and economies of scale is revealed from FDI (Di Mauro, 1999). Dunning's classification of the motives for FDI is based on Behrman's (1972) work for MNCs' (Multinational Corporations) incentives. Behrman stated that the motives for MNCs are resources, markets, efficiency, and strategic assets (Vasyechko, 2012).

Di Mauro (1999) also indicated the importance of market seeking FDI by showing the correlation between FDI flows and market size. Efficiency seeking FDI emphasises factor cost differences, which play an important role in determining the location of investment (Loewendahl, 2001).

The next part will present the attempts to embed theories of FDI in formal models of international trade

New trade theory

Multinational enterprise theory focuses on single firms and their motives to integrate activities across countries. It has been separated rather from international trade theory. International trade theory was refurbished from a general-equilibrium tradition which depends on the assumptions of constant returns to scale and perfect competition.

Building on the above discussion, international trade theory has been widened significantly in recent decades. Therefore the industrial-organisation approach to trade has been indicated by new trade theory. Consequently this has improved the recognition of the reasons for and consequences of trade by taking into consideration the elements of increasing returns to scale, imperfect competition, and product differentiation, relative to the more traditional comparative-advantage models of international trade. Trade gains appear separately from any pattern of comparative

advantage as enterprises realize scale economies and followed strategies of product differentiation in an imperfect competitive market (Markusen, 1995).

Helpman (1984) and Markusen (1984) offered the first attempts to merge multinational enterprise theory with trade theory. The authors proposed general equilibrium models to present multinational enterprises in the theories of general equilibrium of international trade. The importance of general equilibrium theory becomes clear when we try to understand the relationship between the theory of international trade and multinational enterprises by connecting FDI to its determinants. Markusen (1984), argued that when there are high levels of entry barriers in the target markets, multinational enterprises avoid the costs of trade by establishing affiliate companies, by investing abroad. Helpman (1984) argued that varied factor endowment (such as labour) levels between countries motivated FDI and multinational enterprises to establish more affiliates in different economies. In this model, trade between multinational enterprises and their foreign affiliates is created. Moreover, the main concern of Helpman (1984) and Markusen (1984) was to connect their treatments of FDI to international trade theory and not to the OLI paradigm.

3.5 Conclusions

In this chapter we have shed light on definitions of competitiveness, and the main components that go into calculating competitiveness indexes – especially the Global Competitiveness Index from the World Economic Forum (WEF). This consists of 12 indicators reflecting both the macroeconomic and microeconomic environment. After that we saw how economic theory has sought to tackle the concept of

competitiveness through trade and microeconomic theories. We followed this by a consideration of how FDI has been brought into economic theory. In Chapter 4 we shed light on the relationship between FDI, foreign trade and competitiveness through a systematic literature review. These will then be utilised in Chapter 5, when we estimate empirically the links between these three variables for Arab countries.

Chapter 4

The role of FDI and foreign trade in enhancing the competitiveness of Arab countries: evidence from the literature

In spite of the increasing importance of FDI, empirical studies have not given much attention to its relationship with trade and competitiveness, (Cantwell, 1991). Therefore we have tried throughout our research to find links between FDI, foreign trade and competitiveness. We have done this by providing evidence from the literature. In addition, our empirical analysis adopted in Document 4 tested the relationships between FDI, foreign trade and competitiveness in Arab countries using panel data techniques – a region of the world particularly underrepresented in the literature. In this thesis, the results presented in Chapter 5, estimated using a Generalized Method of Moments (GMM) model support the findings from Document 4. Our work provides an important contribution to the economic literature, because the majority of empirical studies analysing the effect of foreign trade and FDI on competitiveness, use numerical indicators only, not the available econometric techniques. Furthermore, to the best of our knowledge, there are no other studies conducted to analyse the relationship between these variables for Arab countries as a group.

In general, we can say that inflows of FDI could produce a number of positive economic effects for the recipient economy. These effects consequently will stimulate economic growth by creating a number of positive externalities and spillovers. In particular, FDI inflows are positively linked with employment, technology, skills of the local labour force and the environment, which in turn will

improve exports and enhance the competitiveness of the host economy. Ozawa (1992) described the links between economic development and competitiveness that generate foreign trade and FDI. The author argued that an increase in trade flows takes place as a result of enhanced comparative advantage which, in turn, is influenced by FDI. In addition, Hernádi (2005) stated that using the advantages of exports and FDI inflows are the most two efficient ways to improve the international competitiveness for nations. In this Chapter we thus seek to answer the research question "can Arab economies competitiveness be boosted by improving foreign trade and foreign direct investments (FDI)?"

The first part of this chapter will analyse the impact of trade openness on economic growth and competitiveness, and seek evidence from the empirical literature. The second part provides a critical review of empirical studies conducted to explain the economic impact of FDI on the business environment. The third part of this chapter will demonstrate the linkage between foreign trade and FDI. Finally, we will elaborate the relationship between foreign trade, FDI and competitiveness.

4.1. The impact of foreign trade on the economic growth: evidence from the empirical economics literature

As discussed in Document 1, competitiveness is crucial for maintaining productivity growth and raising living standards, particularly in small open economies, based on international trade and to a great extent on FDI. It is understood that more competitiveness will lead to more economic growth, therefore we will emphasise here the relationship between economic growth and foreign trade, especially trade

openness or liberalization. The link between trade liberalization and economic growth is a much-discussed topic. The majority of the following studies argue that the liberalization of the trade regime has a positive impact on the growth of GDP.

Yanikkaya (2003) applied two types of trade openness measure to estimate the impact of trade openness on the growth rate of per capita income for 120 countries over the period 1970-1997. The first trade openness measure used trade volumes which contain different ratios of trade variables with GDP: exports, imports, exports plus imports and trade with developed countries. The second measure was derived from trade restrictiveness and estimated by calculating the impact of foreign exchange restrictions on bilateral payments and current transactions. The GMM estimation for first measure of openness suggested that the relation between trade volumes and per capita growth is significant and positive. The results for the second measure revealed that the relation between trade restrictions and per capita growth is significant and positive. As a result the author concluded that trade restrictions in developing countries may cause faster GDP growth.

Edwards (1992) analysed the relationship between trade openness (trade intervention and distortions) and GDP growth by using a cross country data set of 30 developing countries for the period 1970-1982. The author used in his model two basic sets of trade policy indicators, constructed by Leamer (1988). The first set referred to openness and measures of trade policy which restrict imports. This set included tariff and non tariff barriers (NTBs). The second set measured trade intervention and captured the extent to which trade policy distorted trade. The findings of the model, estimated by OLS, revealed that all four openness indicators

were positively related with real per capita GDP growth, whereas trade intervention indexes were found to be significantly negatively associated with GDP growth. These studies strengthen the hypothesis that economies grow faster with a more open trade regime, and grow slower with a more distorted trade regime.

Santos-Paulino (2002) used a sample of 22 developing countries for the period 1972-1998 to investigate the effect of trade openness on export growth. The author applied a typical export growth function, which assumes that export volume relies on the real exchange rate and world income. He used two ways to measure trade openness. The first measured the degree of anti-export bias by using the ratio of export duties to total exports; and the second was a dummy variable of timing of the introduction of trade liberalization measures. The conclusion of the author was that exports grow faster in open economies, as the results of the model estimated by OLS found export duties significant and negative. The dummy variable was also significant, with a positive sign.

Edwards (1998) applied nine indexes of trade policy on comparative data for 93 countries, to analyse the relation between trade policy and Total Factor Productivity (TFP) growth over the period 1980-1990. Three of the nine indexes were related to openness, a higher value of which indicated a lower degree of policy intervention in international trade. The other indexes were related to trade distortions, for which bigger values indicated a greater departure from free trade. The OLS estimates suggested that trade openness indexes were significant and positive, and trade distortion indexes were significant and negative. These results suggest faster productivity growth is linked with more openness.

Harrison (1996) investigated the relation between openness and GDP growth by applying a general production function. The author used GDP as a function of capital stock, years of primary and secondary education, population, labour force, agricultural land and technological change. In addition the author applied seven measures for openness in order to test the statistical relationship between openness and GDP growth. The findings of cross-section estimation showed that only the black market rate was significant, with a negative sign. Also the findings of a country time series panel revealed that tariff and NTBs had positive signs, the black market rate and price distortion index used, in dollar, had negative signs, and were significant. Results of annual data estimation revealed that tariffs and NTBs, and the black market rate, were significant and negative. As a result the author recommended that the choice of time period for investigating the relationship between trade openness measures and GDP growth is critical.

Wacziarg (2001) used a panel of 57 countries over 1970-1989 to examine the links between trade policy and GDP growth. The author used a simultaneous equation model to assess the impact of trade policy on several determinants of growth. Openness was evaluated by an index which included three trade policy variables: tariff barriers, identified by share of import duties to total imports; NTBs, identified by an un-weighted coverage ratio for the pre-Uruguay Round time period; and a dummy variable (liberalization status). The findings illustrated that there is a positive relationship between trade openness and GDP growth.

Iscan (1998) examined the impact of trade openness on TFP growth for Mexican manufacturing industries for 1970-1990. The author used two measures to specify

the effect of trade liberalization on TFP. The first was foreign trade variables, identified by export share; the second was the effective rate of protection. In addition the author identified the start date of trade liberalization (1986) as a dummy variable. The findings of the GMM estimations revealed that there is a positive and significant relationship between growth of productivity and exports, whereas the impact of the change in effective rate of protection was found to be negative and significant. The author concluded that trade openness has a positive impact on productivity growth.

Yusuf and Emmanuel (2000) used foreign trade data (exports plus imports) for selected East Asian countries (Philippines, Indonesia, Malaysia, Singapore and Thailand) to examine the relationship between GDP growth and trade openness for 1960-1997. Results from Johansen estimation rejected the hypothesis that there is no cointegration between GDP growth and trade openness.

Sinha and Sinha (2000) used a sample of 15 Asian countries over 1950-1992 to investigate the impacts of openness and investment on the growth of GDP. The authors developed a model linking the growth of GDP to the growth rates of openness (export plus import), domestic investment and population. The results of the model showed that the coefficient on the growth of openness for China, Hong Kong, Iran, Iraq, Israel, Myanmar, Pakistan and Singapore, were positive and significantly different from zero. Also, the coefficient of the growth of domestic investment for China, Hong Kong, Indonesia, Israel, Japan, Jordan, Philippines, Singapore and South Korea, was positive and significantly different from zero. On the other hand the coefficient of the growth of population in some cases was negative, but in all cases was not significantly different from zero. Overall, the

authors found evidence supporting the hypothesis that the growth rate of GDP is positively linked to the growth rates of openness and domestic investment. On the other hand, the relationship between the growth rate of GDP and the growth rate of population is vague.

Leyaro and Morrissey (2010) used a panel data for up to 133 developing countries for 1970-2008 in order to evaluate if the relationship between trade openness and growth was conditional on structural variables. The authors argued that the harmful impact of primary commodity export dependence on Sub-Saharan African countries' growth can be captured by two structural variables; natural barriers to trade (trade costs) and natural resource endowments (primary commodity dependence). They applied cross-section, dynamic panel data regressions and the Hansen endogenous threshold technique. The results suggested that high trade costs and natural resource endowments have a negative impact on growth. Therefore the impact of trade openness on growth is affected by structural variables in Sub-Saharan Africa.

Sakyi (2011) examined the impact of trade openness and foreign aid on the economic growth of Ghana during the period 1984-2007. The author used the autoregressive distributed lag (ARDL) bounds test and found that the impact of trade openness and foreign aid on economic growth was positive and statistically significant in the short term and long term, although reduced by their interaction. In addition, economic growth in Ghana since 1983 and the implementation of liberalisation policies, have benefited from both trade openness and foreign aid.

Ellahi et al. (2011) used annual time series data for 1980-2009 to investigate the connections among trade openness, industrial value added and economic growth in Pakistan. The authors applied a unit root test to determine the time series properties, while OLS and Granger causality tests were used to establish causality. The results suggested that trade openness (growth of imports and exports) was not the only determinant of economic growth, but a positive and significant contribution can be realized by taking into account industrial value added as well. Moreover the outcomes of the study recommended that developing countries must apply trade openness and liberalisation to support their economies and accordingly boost the living standards of their people.

To sum up, from this literature review we can conclude that the majority of these studies find that the liberalization of the trade regime has a significant positive impact on economic growth. The studies of Edward (1992), Wacziarg (2001), Yusuf and Emmanuel (2000), Sinha and Sinha (2000), Ellahi et al. (2011) and Daniel (2011) found a positive relationship between trade openness and economic growth. These studies strengthen the hypothesis that economies grow faster with a more open trade regime, and grow slower with a more distorted trade regime. Santos-Paulino (2002) concluded that exports grow faster in open economies. Moreover, Iscan (1998) Edwards (1998) found that trade openness has a positive impact on productivity growth.

4.2. The economic impact of Foreign Direct Investment

In this section, we provide a critical review of empirical studies conducted to explain the economic impact of FDI on growth and competitiveness. After that, critical

review of empirical studies on the economic impact of business environment on attracting FDI will be provided.

4.2.1. Critical review of empirical studies on the economic impact of FDI

There are a great many empirical studies testing the effect of FDI on the economic growth of the host country. These studies reveal that there are key factors (such as market size and trade policy) that affect inward FDI flows to the host economy as well as the influence of FDI on economic growth.

The study of Borensztein et al. (1998) provides evidence regarding the effect of FDI on economic growth, in a cross-country regression framework. The sample covers data of FDI flows from industrial countries to 69 developing countries over two decades. The authors found that FDI is an important tool for the transfer of technology, contributing relatively more to growth than domestic investment. Furthermore, their results suggest that FDI is more useful than domestic investment only when the host country has a minimum threshold stock of human capital or when there is sufficient absorptive capability of the advanced technologies available in the host economy. In addition their results revealed that an increase of one dollar in the net inflow of FDI is linked with an increase of more than one dollar in total investment in the host economy.

Alfaro and Charlton (2007) re-examined the relationship between FDI and growth by distinguishing between different qualities of FDI. The authors used the word

'quality' to refer to the impact of a unit of FDI on economic growth. They used industry level data for 29 countries for the period 1985-2000 to test the various links between different "types" of FDI and economic growth. The results showed that FDI at the industry level is related to higher growth in value added. In addition the relation is stronger for industries with higher skill requirements and for industries more dependent on external capital.

De Mello (1999) indicated to what extent FDI improves the economic growth which relies on the degree of complementarity and substitution between FDI and domestic investment. FDI enhances economic growth in the long term, through transfer of knowledge and the accumulation of capital stock representing newer technologies. Therefore the effect in the host economy will be higher than technological leaders. Accordingly, the effect of FDI on growth appears to rely inversely on the technological gap between leaders and followers. The level of substitutability between capital stocks embody old (domestic) and new technologies related to FDI appears to be larger in technologically advanced recipient economies and the level of complementarity between old and new technologies found in developing economies.

The study of de Soysa and Oneal (1999) provided strong evidence that FDI grants significant direct and indirect benefits to the recipient economy. The authors focused on a sample of 97 developing countries for the period 1980-1991 to study the growth in per capita income for 114 countries. In order to illustrate the two sources of investment as complementary they applied Granger causality tests. Domestic investment was encouraged significantly by an increase in FDI. In addition new

domestic investment attracts new foreign investment as well, but the impact is much smaller.

Rothgeb (1984) tested the effect of foreign investment on growth in the third world and found that the impacts are different for different types of third world state. The author examined a sample representing all third world countries. He concluded that the relationship between total stocks and overall growth is negative in the long term. Flows in manufacturing and domestic trade and total flows had an initial disruptive impact that was followed by a later period of growth.

Barry and Collins (1999) tested the effect of capital inflows on domestic investment for 58 developing countries (from Latin America, Asia and Africa) for the period 1978-95. The authors differentiated among three types of inflows: FDI, portfolio investment, and other financial flows (primarily bank loans). The study revealed that an increase in capital inflows by one dollar is linked with a 50 cent increase in domestic investment. This finding hides the considerable difference among types of inflow, however. The impact of FDI on domestic investment appears to be one for one; but there is virtually no visible association between portfolio inflows and investment (little or no impact); the effect of loans lies between these.

Agosin and Mayer (2000) attempted to assess to what extent FDI in developing countries crowds in or crowds out domestic investment, for the period 1970–1996. The authors found that the positive effects of FDI on domestic investment are not assured. In some cases, total investment may increase much less than FDI, or may

even fail to rise when a country experiences an increase in FDI. In this paper the results of the econometric exercises recommend that crowding in has been strong in Asia, and crowding out has been the norm in Latin America. In Africa, FDI has enlarged overall investment one-to-one.

Loungani and Razin (2001) indicated possible risks of FDI on developing host economies when they studied the preference for FDI over other types of private capital inflows. The authors refer to some risks of FDI, such as it being reversible through financial transactions; its benefits can be limited by leverage; and a high share of FDI in a country's total capital inflows may reflect its institutions' weakness rather than their strength.

Blonigen and Wang (2004) found that the nature, volume and impact of FDI in Developed Countries (DCs) and Less Developed Countries (LDCs) are very different. The results suggest that determinant factors for the location of FDI activity across countries differ systematically across LDCs and DCs. The aggregate data show that the impact of FDI on growth is one that is only supported for LDCs, not DCs. Moreover, FDI is much less likely to crowd out (more likely to crowd in) domestic investment for LDCs than DCs.

In spite of the bulk of empirical studies suggesting that FDI is related to the economic environment of the host economy, there is no generally accepted set of explanatory variables that could be considered as the determinants of FDI. Chakrabarti (2001) attempted to study the large number of determinant variables of FDI that have taken

the attention of economists in the literature. The author proposed a structural model designed to assess the role of various potential determinants of the spatial distribution of FDI. The results suggested that the relation between FDI and variables such as tax, wages, openness, exchange rate, tariffs, growth and trade balance, are highly sensitive to small modifications in the conditioning information set. Moreover the underlying theory does not provide a specific prediction for the impact of a particular variable on FDI.

The empirical studies analysing the effect of FDI on Arab countries Is considered now. Moosa and Cardak (2005) examined the determinants of FDI inflows in Middle East and North Africa (MENA) countries (mainly Arab). The author applied extreme bounds analysis to a sample of cross-sectional data covering 18 countries. The results suggested that countries that are more successful in attracting FDI are those countries that have growing economies. In addition those countries give more attention to education, research and have low country risk, as well as higher returns on capital due to the lack of domestic investment in fixed capital.

Sadik and Bolbol (2001) tested the impact of FDI through technology spillovers on overall TFP for Egypt, Jordan, Morocco, Oman, Saudi Arabia and Tunisia for a period of 20 years. The authors found that there are no clear positive spillovers for FDI on technology and productivity in addition to those of other types of capital formation. On the other hand, during the period of study the results revealed that there are some signals that the impact of FDI on TFP is lower than domestic investments in some countries, illustrating a possibly dominating negative crowding out impact.

Haddad and Harrison (1993) investigated the impact of FDI on the economic growth of Morocco. The authors linked the productivity of Moroccan enterprises with the degree of foreign ownership of the enterprise, in addition to the degree of foreign ownership of the sector to which the enterprise belongs, by using the data of industry level survey on Moroccan enterprises. The results revealed that an increase in overall level of productivity of enterprises is linked with a greater degree of foreign ownership. The results also suggested that enterprises in sectors with a higher ratio of foreign ownership have higher levels of productivity, separately from the enterprises' degree of foreign ownership. In spite of these results, FDI flows to sectors and enterprises are linked with higher overall productivity. The authors observed that it is not possible to determine that the existence of FDI should have improved the growth rate, and not just the level, of productivity in enterprises owned domestically in sectors with a higher level of foreign ownership.

In conclusion, we have focused in this part on the empirical studies testing the effect of FDI on the economic growth of the host country. The studies of Borensztein et al (1998), Alfaro and Charlton (2007) and De Mello (1999) found that there is a positive impact for FDI on economic growth. Rothgeb (1984) investigated the effect of FDI on growth in the third world and found that the impacts of FDI are different for different types of third world state. The study of de Soysa and Oneal (1999) provided strong evidence that FDI grants significant direct and indirect benefits for the recipient economy. Loungani and Razin (2001) indicated possible risks of FDI on the developing host economy.

Barry and Collins (1999) found that the impact of FDI on domestic investment appears to be one for one, with virtually no visible association between portfolio inflows and investment. Agosin and Mayer (2000) illustrated that the positive effects

of FDI on domestic investment are not assured. Blonigen and Wang (2004) found that the nature, volume and impact of FDI in DCs and LDCs are very different. Chakrabarti (2001) found that the relation between FDI and variables such as tax, wages, openness, exchange rate, tariffs, growth and trade balance are highly sensitive to small modifications in the conditioning information set and there is no specific prediction for the impact of a particular variable on FDI.

Empirical studies conducted to investigate the economic impact of FDI on Arab countries revealed that growing economies are more successful in attracting FDI (Moosa and Cardak, 2005). But Sadik and Bolbol (2001) did not find a significant relationship between FDI and productivity in Arab countries. However, Haddad and Harrison (1993) found in their study of Morocco that an increase in overall level of productivity of enterprises is linked with greater degree of foreign ownership.

4.2.2. Critical review of empirical studies on the economic impact of the business environment on attracting FDI

There are a great many empirical studies testing the effect of the business environment and investment climate on attracting FDI. These studies reveal that there are some factors (such as market size and trade policy) which affect inward FDI to the host economy, as well as the affecting the impact of FDI on economic growth. Studies such as that of Urata and Kawai (2000), find links with domestic market size. Daniels and Quigley (1980) showed that GDP, a proxy for market size, is one of the key significant factors that can influence the inflows of FDI. In spite of the bulk of empirical studies suggesting that FDI is related to the economic

environment of the host economy, there is no generally accepted set of explanatory variables that could be considered as definitive determinants of FDI.

The IMF (2001) identified a list of determinants for FDI: distance and transport cost, market size, agglomeration effects, factor costs, fiscal incentives, business climate, economic stability, and trade openness. Also, according to Benassy-Quere et al. (2005), public efficiency factors (including tax systems, easiness to create a new business, lack of corruption, transparency, contract law, security of property rights, efficiency of justice and prudential standards) are important determinants of FDI inflows. Sekkat and Veganzones-Varoudakis (2007) classified the factors affecting FDI inflows into three groups. The first group is basic economic factors, which include the rate of return difference on capital across countries, portfolio diversification strategy of investors and market size. The second group is trade liberalization and exchange rate movements. The third group includes other aspects of the investment climate, such as, labour cost, skilled labour, political risk, transport and communication.

When investigating the effect of political stability on FDI inflows in the Organization of Islamic Conference (OIC) countries, Jafari et al. (2011) found that there is a positive effect of GDP, trade openness and population on FDI inflows. However, political unrest has a negative impact on FDI inflows in this group of countries. Similarly, Schneider and Frey (1985) examined the effect of social and political determinants on the FDI inflows in 80 less developed countries. The results again revealed that political instability is significant and negative on FDI inflows.

Dhakal et al. (2007) investigated the factors that determine the inflows of FDI in Central and Eastern European countries. The authors used FDI inflows as a function of real GDP, the inflation rate, the current account balance, the real exchange rate, openness, and government regulation. The results revealed that the variables of openness and government regulation positively affect the inflows of FDI in the host economies. On the other hand, the real exchange rate is found negatively to affect the inflows of FDI in this group of countries. However the effect of market size, proxied by real GDP, was found to be insignificant on FDI inflows.

The study of Asiedu (2002), investigated the determinants of FDI inflows to developing countries, and inspected the reason behind the low performance of sub-Saharan Africa (SSA) in attracting FDI, in spite of policy reforms in this group of countries. The results revealed that the factors that attract FDI inflows to developing countries in general do not have the same effect on SSA countries, in particular infrastructure developments, higher return on capital, and trade openness. Therefore, the outcomes showed that Africa is different and perceived as a very risky region.

There are great number of empirical studies conducted to measure the effect of business environment on economic developments, especially for property rights, infrastructure, entry regulations, tax burden, and labour (World Bank, 2010). Concerning **property rights**, Acemoglu et al. (2004) state that reliable institutions are considered as the main element required to protect and secure property rights. Kanak and Keefer (1995) argue that economies characterized by a low level of property rights will receive less foreign investment and consequently experience weaker economic growth. Cull and Xu (2005) investigate from a large company-

level data set in China that property rights are statistically and economically significant in predicting company reinvestment. In order to measure the relative importance of property rights and finance in the economies in transition, Johnson et al. (2002) used a sample of companies from eastern European countries. The results revealed that the degree of property rights relies on the phase of transition. Moreover they found that in the initial stages of transition, the property rights effect is significant.

Infrastructure, such as roads, power supply, communications, and customs, is considered from the stand point of policy makers as a very important element for economic development (World Bank, 2010). In addition, Dollar et al. (2005) found that company performance could be explained mainly by the existence of good infrastructure. The authors investigated in their study the effect of infrastructure on factors which reflect the performance of the company, such as TFP, growth rates of output, wages, employment, and profits on fixed assets. Also, Fernandes (2008) found that infrastructure in Bangladesh improve the performance of companies in that country.

Concerning the effects of **entry regulation**, Barseghyan (2008) confirmed that entry deregulation enhances macroeconomic performance and productivity. In addition, this positive impact varies according to the primary level of regulation (World Bank, 2010). The empirical study of Gorgens et al. (2003) showed that deregulation from high to medium levels of regulation increased the growth rate by 2.5%. Deregulation has a remarkable impact on the economies of India and China, but the effect is not the same on the OECD economies (World Bank, 2010).

The studies conducted to examine the effect of **labour regulation** on developing countries suggest that labour flexibility improves company performance (World Bank, 2010; Hallward-Driemeier et al., 2006). Dong and Xu (2009) found that increased labour flexibility in China led to remarkable economic growth. In addition, Besely and Burgess (2004) found that cities with more flexible labour regulations are able to adapt their labour requirements according to circumstance. Almeida (2005) investigated the effect of labour regulations on informality, and labour productivity. The results indicated that stricter labour regulations have a positive effect on informality, but lead to lower levels of productivity and investment.

For **tax burden**, Woodward and Rolf (1993) showed the positive impact of tax incentives on attracting FDI. But, Shah (1995) argued that foreign investors are not benefiting from tax incentives, as it shifts tax revenues from the host country to a foreign country treasury. Moreover, Shah added that incentives granted to a specific industry may generate pressure from other sectors looking for similar treatment. Reuber et al. (1973), stated that tax incentives may create prospects for increasing tax rates in the future.

Concerning the empirical studies looking at the effect of FDI on Arab countries, Moosa and Cardak (2005) examined the determinants of FDI inflows in MENA countries (mainly Arab). The authors applied extreme bounds analysis to a sample of cross-sectional data covering 18 countries. The results suggested that countries that are more successful in attracting FDI are those countries that have growing economies. In addition, those countries give more attention to education, research

and have low country risk, as well as high return on capital due to the lack of domestic investment in fixed capital.

Sadik and Bolbol (2001) tested the impact of FDI through technology spillovers on overall TFP in Egypt, Jordan, Morocco, Oman, Saudi Arabia and Tunisia, for a period of 20 years. The authors found that there are no clear positive spillovers for FDI on technology and productivity, beyond those of other types of capital formation. On the other hand, during the period of study the results revealed that there are some signs that the impact of FDI on TFP is lower than domestic investment in some countries, illustrating a possibly dominating negative crowding out impact. Moreover, Chan and Gemayel (2004) found that the low levels of political unrest and economic performance in MENA region may clarify the decline of FDI inflows in this group of countries.

Onyeiwu (2003), indicated that FDI inflows in MENA countries are different compared with other developing countries. The results revealed that the significant factors of corruption and limited trade openness, can explain the low levels of FDI inflows to this region. Also, Habash (2006) stated that improved political rights and human capital impact significantly the inflows of FDI in the MENA countries. The positive effect of nominal exchange rate depreciation on FDI inflows is small in this group of countries.

Mohamed and Sidiropoulos (2010) examined the main determinants of FDI in MENA countries over the period 1975-2006. The results indicated that the main FDI

determinants in MENA countries include economy size, government size, natural resources and institutional variables. The authors concluded that the countries receiving low levels of FDI inflows can improve their performance by enhancing the investment climate to make it more attractive. Therefore, MENA countries' authorities are required to remove all barriers to trade, develop their financial system and build appropriate institutions.

Haddad and Harrison (1993) investigated the impact of FDI on the economic growth of Morocco. The authors linked the productivity of Moroccan enterprises with enterprises' degree of foreign ownership, in addition to the degree of foreign ownership in the sector to which the enterprise belongs, using data from an industry level survey of Moroccan enterprises. The results revealed that an increase in the overall level of productivity of enterprises is linked with a greater degree of foreign ownership. The results also suggested that enterprises in sectors with a bigger ratio of foreign ownership have higher levels of productivity, separately from the enterprises' particular degree of foreign ownership. In spite of these results indicating that FDI flows to sectors and enterprises are linked with higher overall productivity, the authors observed that it is not possible to claim that the existence of FDI should have improved the growth rate, as well as the level, of productivity in enterprises owned domestically in sectors with higher levels of foreign ownership.

Hasen and Gianluigi (2009) investigated the determinants of FDI inflows to Arab Maghreb Union (AMU) countries. The results revealed that the determinants of FDI inflows in this group of countries are different from other developing countries. For example the variables of trade openness and foreign market are insignificant for FDI

inflows to AMU countries, whereas other variables, like growth in market size and existing stock of FDI, are significant. In addition, the sign on the exchange rate is against the expected sign according to similar previous empirical studies. Also the results indicated that there are two elements which explain why this group of countries achieved lower FDI inflows compared with other countries at the same phase of development, as the large government sector may create corruption, bureaucratic red tape and inflation.

The study of Soumia and Abderrezzak (2013) highlighted the positive effect of FDI inflows on the economic growth of AMU countries. They stated that inflows of FDI could bring essential benefits to Maghreb countries (Algeria, Morocco and Tunisia), such as capital inflows, technology, human capital formation, international trade integration, job creation and the enhancement of enterprise development. The study emphasized the importance of political stability in attracting FDI inflows and the need to include policies aimed at improving the legal environment, infrastructure and governance.

After discussing the importance of a suitable business environment in attracting FDI inflows, from the standpoint of the theoretical and empirical literature, we now move to consider the policy reforms adopted by Arab countries, in order to create a more attractive business environment in the region.

During the period 2008-2016, Arab countries exerted a lot of effort to improve the business and investment climate, as detailed in earlier chapters. These efforts have

been aimed at improving the investment climate for the private sector, in order to create more jobs to absorb the increasing number of unemployed in the Arab region during recent years. According to World Bank (2013), the private sector creates about 90% of jobs in developing countries. People will find more opportunities when the adopted policies by the governments create a dynamic investment climate for the private sector to increase investments, create jobs and boost productivity. The study added also that policy makers should pay attention to the private sector, beside macroeconomic factors, therefore they should strengthen the quality of laws, regulations and institutional arrangements which create the conditions for strengthened daily economic life.

4.3. Foreign Trade, FDI and Competitiveness:

In this part we aim to shed light on the relationship between foreign trade, FDI and competitiveness, in order to answer the research question "can Arab economies competitiveness be boosted by improving foreign trade and foreign direct investments (FDI)?"

Above, we have discussed the economic impact of foreign trade and FDI independently. Therefore we will start this part by demonstrating the linkage between foreign trade and FDI. We will then elaborate the relationship between foreign trade, FDI and competitiveness.

4.3.1. Links between foreign trade and FDI: evidence from the literature

In the economic literature, the issue of complementarity or substitutability between FDI and foreign trade has had attention in several empirical studies. Hailu (2010) found that when trade between two nations is built on their comparative advantages, the relationship between foreign trade and FDI is complementary. On the other hand, when trade between two countries is built on their absolute advantages, the relationship between trade and FDI is one of substitution. The degree of complementarity between foreign trade and FDI is, however, an empirical rather than a theoretical question. Wei, et al. (1999) argued that foreign trade and FDI are complements, as companies get benefits from the differences in factor price through cross-border vertical production integration. In addition, Andersen and Hainaut (1998) concluded that there is evidence for the complementarity relationship between exports and outward FDI. Their results confirmed the complementarity relationship for the USA, Japan, and Germany, but not for the UK. Blomstrom, et al. (1988) used trade equations for company level data in the US and Sweden. The authors concluded that there is a complementary relationship between FDI and exports.

Brainard (1997) found that the increase in transactions cost, as a result of higher trade barriers and transportation costs, encourages horizontal cross border production expansion and accordingly international investment. Therefore, according to Brainard, the relationship between foreign trade and FDI is one of substitution. Mundell (1957) argued that high trade barriers encouraged factor movements, whilst restrictions to factor movements, when increased, will encourage

trade. Mundell concluded that the movement of goods is considered to some extent as a substitute for factor movements.

Helpman and Krugman (1985) argued that, when economies are asymmetric, the movements of FDI to labour intensive countries will generate a good variety of finished products. Therefore the authors concluded that FDI creates complementary trade flows in the form of labour intensive products. In addition, the authors mentioned that the relationship between trade and FDI will be one of substitution, when economies are symmetric, and consequently capital intensive goods will replace labour intensive goods.

Kojima (1975) discussed the impact of FDI source on exports. The work of Kojima indicated that the American type of FDI is a substitute for trade; however the Japanese type of FDI boosts trade in the host country. Kojima thus described the Japanese type as "pro-trade FDI" (complements) and the American type as "anti-trade FDI" (substitutes). The author introduced this notion within the framework of what he termed "a macroeconomic approach to FDI". Within this approach Kojima tried to present the essential difference in trade orientation between the overseas investments of Japan and the USA. Kojima described the main objective of the Japanese investments abroad as exploiting natural resources in countries which are rich in natural resources, or produce labour intensive products in countries which are rich in labour. These products were exported back to Japan or on to another country. On the other hand the main purpose of American investments abroad is to manufacture sophisticated, technology based, and capital intensive goods for local markets.

4.3.2. The relationship between FDI, foreign trade and competitiveness: a literature review

Cantwell (1991) stated that in spite of the increasing importance of FDI, empirical studies did not give attention to its relationship with trade and competitiveness. Therefore we will try to find linkage between these variables through the available literature, before undertaking our own analysis in Chapter 5.

In general, we can say that inflows of FDI will produce a number of positive economic effects on the recipient economy. These effects consequently will stimulate economic growth. Specifically, FDI inflows are positively linked with employment, technology, skills of the local labour force and the environment, which in turn will improve exports and enhance the competitiveness of the host economy. Ozawa (1992) described the links between economic development and competitiveness that generate foreign trade and FDI. The author argued that an increase in trade flows takes place as a result of enhanced comparative advantage, which, in turn, is influenced by FDI. In addition, Hernádi (2005) stated that using the advantages of exports and FDI inflows are the most two efficient ways to improve the international competitiveness for nations.

Moreover, Chaisrisawatsuk and Chaisrisawatsuk (2007) stated that the benefits from trade will be increased by improving the country's competitiveness if trade and FDI are complementary. The authors mentioned that the country's competitiveness will be enhanced by FDI inflows which, in turn, are expected to increase the efficiency and productivity of production factors.

In addition to the above empirical studies, our earlier empirical analysis persented in Document 4 showed that there is a positive relationship between FDI, foreign trade and competitiveness in Arab countries. To estimate the effect of FDI and foreign trade on the competitiveness of Arab countries, we obtained annual data, for 17 Arab countries, spanning the period 1998-2009 on the relevant variables. We adopted in our econometric model panel data methodology by applying a Generalized Least Square Estimator allowing for both fixed effects and random effects. The results of the empirical model reveal that FDI inflows and foreign trade have a positive impact on the competitiveness of Arab economies. In addition, control variables reflecting macroeconomic management in Arab countries such as domestic credit to the private sector, corruption and inflation are found to be significantly and positively related to competitiveness.

The results obtained from our empirical work in Document 4 will be tested further in Chapter 5, below, by applying another econometric technique within a panel data analysis. We adopt Generalized Method of Moments (GMM) in a dynamic panel data model with fixed effects. The results of the empirical model will confirm the earlier findings, that FDI inflows and foreign trade have a positive impact on the competitiveness of Arab economies.

To sum up, the majority of empirical studies conducted to investigate the relationship between FDI and foreign trade focussed on whether this relationship is complementary or substituting. These studies concluded that, when trade between two nations is built on their comparative advantages, the relationship between

foreign trade and FDI is complementary. In contrast, when trade between two countries built on their absolute advantages, the relationship between trade and FDI is considered as substitution (Hailu, 2010). Regarding the relationship between FDI, foreign trade and competitiveness, we can conclude that an increase in trade flows takes place as a result of enhanced comparative advantage, which, in turn, is influenced by FDI (Ozawa, 1992). In addition, exports and FDI inflows are considered the most two efficient ways to improve the international competitiveness for nations (Hernádi, 2005). Finally, the benefits from trade will be increased by improving the country's competitiveness if trade and FDI are complementary (Chaisrisawatsuk and Chaisrisawatsuk, 2007).

In Chapter 5 we investigate further the relationship between competitiveness, foreign trade and FDI in Arab countries.

Chapter (5)

Quantitative Analysis: Generalized Method of Moments (GMM) Model

In the context of trying to answer the broad research question "can Arab economies competitiveness be boosted by improving foreign trade and foreign direct investments (FDI)?" we provided, in Document 4, an empirical analysis of the relationship between competitiveness, foreign trade and FDI for Arab economies. We adopted in our econometric model panel data methodology, by applying a Generalized Least Square Estimator allowing for both fixed effects and random effects. This came after providing in Document 3 a descriptive analysis of recent economic developments of Arab countries, in order to relate the results of the empirical analysis and the economic performance of these countries in 2009. In addition, we have tried in the previous chapters of this Document, 5, to shed light on the macroeconomic policies adopted in order to enhance the investment climate, to attract more FDI and thus to increase exports of Arab countries, within the strategic objective of improving the competitiveness of these economies. The empirical analysis in this chapter will try to answer the following questions:

- What is the relationship between competitiveness, FDI and foreign trade in Arab countries?
- Can FDI flows affect the competitiveness of Arab countries?
- Does foreign trade affect the competitiveness of Arab countries?
- Are there any other factors that could affect the competitiveness of Arab countries?

The answer to these questions will assist in answering the broad question of our research, mentioned above, in order to investigate to what extent competitiveness of Arab economies could be boosted by improving foreign trade and FDI inflows, through adopting appropriate macroeconomic policies. Also, the answer to these questions means that foreign trade and FDI have a positive spillover on the competitiveness of Arab countries.

We provide in this chapter an econometric model to explore the relationship between competitiveness, foreign trade and FDI for Arab economies applying panel data techniques, for 1998-2009. We confirmed in Document 2 that nobody has done this kind of empirical work for Arab countries, to the best of our knowledge.

In this Document, we adopt panel data methodology, by applying Generalized Method of Moments (GMM) in a dynamic panel data model with fixed effects. Panel data models are considered as the most appropriate technique for regional modelling, (Melecký and Nevima, 2011). To estimate the effect of FDI and foreign trade on the competitiveness of Arab countries, we obtained annual data, for 17 Arab countries[28], spanning the period 1998-2009.

The results of the empirical model reveal that FDI inflows and foreign trade have a positive impact on the competitiveness of Arab economies. In addition, control variables reflecting macroeconomic management in Arab countries, such as

[28] Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen.

domestic credit to the private sector, corruption, inflation, labour productivity and nominal exchange rate are found to be significantly and positively related to competitiveness. The findings of the Generalized Method of Moments (GMM) model, applied in this chapter, confirm the results of the EGLS model with fixed effects, presented in Document 4.

In the following sections of this chapter, we will start by presenting the theoretical framework for our empirical analysis and methodology. Then we will present the model specification and descriptive analysis for the model variables and data. After that we will display the previous empirical work conducted in this respect. Next we will demonstrate our panel estimation, which will be followed by the discussion and conclusion.

5.1. Theoretical Framework

We made the case above that there is no generally accepted definition for competitiveness in the economics literature. From reviewing these definitions, we conclude that the majority agree that productivity is considered to be one of the central determinants of competitiveness. Productivity, in turn, will determine the growth rate of standard of living. In other words, an increase in productivity will lead to a higher growth rate in the standard of living and employment. In this context, the report of WEF (2010, p.4) defined competitiveness as the set of institutions, policies, and factors that determine the level of productivity which, in turn, will set the level of income for the people of a country. On the other hand, some definitions of competitiveness focused on achieving high standards of living, in addition to high

employment rates on a sustainable basis, through producing and selling products and services in international markets.

The definitions of WEF (2000, 2010) and OECD (1995a) gave more attention to the supportive policies taken by governments in order to create an attractive competitive environment, for firms to improve the competitiveness of nations. This improved competitiveness will be reflected in the economic growth rate and people's standard of living. The other definitions emphasised more the impacts of competitiveness, which will be reflected in the economic growth rate and a higher level of income for individuals, (Aiginger, 1998; European Commission, 1995, 1998, 2001; Fagerberg, 1988; Hatsopoulos et al., 1988; Scott and Lodge, 1985).

Moreover, Stanculescu (2013) stated that GDP is the most widely accepted indicator for competitiveness. Also, Melecký and Nevima (2011a) considered GDP as the most suitable indicator for a competitiveness assessment for countries.

From the above analysis of competitiveness, we take GDP as an indicator for competitiveness. Therefore, in our empirical analysis we proxy the competitiveness of Arab countries by the GDP of these countries, in order to assess the relationship between competitiveness, FDI and foreign trade.

Melecký and Nevima (2011a), citing Garelli (2003), consider competitiveness as the ability of a country to produce goods and services in an open and fair trading environment in order to increase the income of people. Garelli (2003) borrowed this idea from the competitiveness definition of the OECD, therefore trade openness is considered to be one of the main determinants of competitiveness. In addition, this

idea is supported by the definition of the European Commission (1999) for competitiveness, which stresses the importance of trade openness for the increased competitiveness of countries. Rowthorn (2000) also emphasises that openness to trade leads to increased competitiveness and prosperity. Therefore, we can also conclude that a deterioration in the country's foreign trade is considered as an indicator of competitiveness decline.

Lengyel (2003) constructed a pyramid in which he determined the factors that affect a country's competitiveness. Lengyel classified these factors into three groups. The first group included basic factors such as labour productivity, employment, and economic openness. The second group comprised growth factors such as research and development (R&D), small and medium-sized enterprises (SMEs), FDI, infrastructure and human capital, institutions and social capital. He stressed that the growth factors are very important for improving a country's competitiveness. The third group consists of success factors, which include economic structure, innovation, regional accessibility, qualified labour, social structure and regional identity. Stanculescu (2013) considered FDI as one of the main indicators which affect the country's competitiveness performance. In the same context, Lengyel (2003) stated that FDI is very important to improve the level of competitiveness. He specified that FDI generates new sectors, markets, technologies and new jobs.

Despite the importance of productivity, which is considered as one of the main indicators of competitiveness, we do not include this variable in our empirical model for two reasons. First, the purpose of our empirical work is to investigate the relationship between competitiveness, foreign trade and FDI. Second, and crucially, there are limitations in the data availability for productivity in the majority of Arab countries during the period of analysis. Data availability is also an obstacle to

collecting data on the real effective exchange rate (REER) for the majority of Arab countries. REER is considered by some to be a key indicator for measuring a country's competitiveness.

In spite of these concerns, we have included in our quantitative analysis adding proxies the variables we are unable to include directly in our model. We added labour productivity as a proxy for productivity. Ths has been calculated variable according to International Labour Organization (ILO) methodology[29]. The following equation is used to calculate the labour productivity:

$$\text{Labour productivity} = \frac{\text{GDP at constant prices}}{\text{Number of employed persons}}$$

Also, we used the nominal exchange rate (each Arab currency vis a vis the US $ dollar) as a proxy for the REER variable.

5.2. Empirical Methodology

Our empirical analysis involves adopting panel data methodology, applying GMM in a dynamic panel data model with fixed effects in our specification. The term panel data refers to "the pooling of observations on a cross-section of households, countries, firms, etc. over several time periods", (Baltagi, 2005: p.1). Moreover Hsiao (2005: p.1) states that "panel data or longitudinal data typically refer to data containing time series observations of a number of individuals. Therefore, observations in panel data involve at least two dimensions; a cross-sectional dimension, and a time series dimension".

[29] Source: http://www.ilo.org/ilostat-files/Documents/description_PRODY_EN.pdf

Concerning the benefits of panel data, such models are seen as one of the most innovative in econometrics because they provide a rich environment for the development of estimation techniques and theoretical results. Panel data techniques allow researchers to study issues they could not investigate before, such as labour supply, (Ben-Porath, 1973) and the analysis of production functions, (Greene, 2003).

Moreover, Baltagi (2005) stated that the benefits of panel data have been listed by Hsiao (2003) and Klevmarken (1989). In addition, Melecký and Nevima (2011a) listed the benefits of panel data compared to other conventional linear regression models. We summarize these benefits as follows:

- Panel data are used for controlling for individual heterogeneity, because individuals, firms and countries are heterogeneous. In addition Moulton (1986) states that the techniques of time series and cross section studies cannot control for heterogeneity, and can lead to biased results.
- Baltagi (2005) also mentions that panel data provide more informative data, more variability, less collinearity among the variables, more degrees of freedom and more efficiency.
- It is better to use panel data to study the dynamics of adjustment. Panel data are recommended to be used to investigate spells of unemployment, job turnover, residential and income mobility.
- It is recommended to use panel data to recognize and measure effects which are not detectable in pure cross-section or pure time-series data.
- Models of panel data are better than pure cross-section or time-series data in enabling economic researchers to construct and test more complicated

behavioural models. In addition, fewer restrictions can be imposed in panels on a distributed lag model (Baltagi, 2005; Hsiao, 2003). For instance, it is recommended to use panel data models to study technical efficiency (Baltagi and Griffin, 1988b; Cornwell, Schmidt and Sickles, 1990; Kumbhakar and Lovell, 2000; Baltagi, Griffin and Rich, 1995; Koop and Steel, 2001).

- Using panel data models enables researchers to affect the dynamics of change for each individual variable.Using panel data models enables researchers to detect fixed and random effects.
- Capability to design and test complex models using an appropriate number of degrees of freedom.
- Panel data models eliminate variations caused by using aggregated data sets. Moreover, panel data models are suitable to be used in the areas of both microeconomics and macroeconomics.
- Finally and relevant for this study, panel data models are well-suited to the study of competitiveness.

5.3. Model Specification

Given the central objective of our empirical investigation to estimate the relationship between competitiveness, FDI and foreign trade in Arab countries, panel data regression provides a natural approach for our analysis as explained above. Our model specification for the dynamic panel data regression will be based on the following equation (1):

$$GDP_{it} = \beta_0 + \beta_1 GDP_{it}(-1) + \beta_2 FDI_{it} + \beta_3 FDI(-1)_{it} + \beta_4 OPENESS_{it} + \beta_5 OPENESS(-1)_{it} + \beta_6 CORR_{it} + \beta_7 CORR(-1)_{it} + \beta_8 CORR(-2)_{it} + \beta_9 INF_{it} + \beta_{10} INF(-1)_{it} + \beta_{11} DCPS_{it} + \beta_{12} DCPS(-1) + {}_{it}\ \beta_{13} PROD_{it} + \beta_{14} NEXCH_{it} + \varepsilon_{it}$$

Where:

GDP_{it} Gross Domestic Product

FDI_{it} Foreign Direct Investment

$OPENESS_{it}$ Trade Openness

$CORR_{it}$ Corruption

INF_{it} Inflation

$DCPS_{it}$ Domestic Credit to private Sector

$PROD_{it}$ …….Labour Productivity

$NEXCH_{it}$ ……..Nominal Exchange Rate

β_0 Constant

$\beta_{1,\ldots\ldots\ldots,12}$ Slope parameter of regression model

ε_{it} Random error

i Indexes for cross- sectional characteristics,

where, i=1,2,……..,17 of Arab countries.

t Indexes time; t=1998, 1999,……2009.

5.4. Description of the Model Variables and Data

As mentioned above, GDP is the most widely accepted indicator for competitiveness in the economics literature. Therefore, according to our model specification for the panel data regression, we select GDP as the dependent variable and proxy for competitiveness. Concerning the independent variables (foreign trade and FDI), the

purpose of our empirical analysis is to investigate the impact of foreign trade and FDI on the competitiveness of Arab countries. Document 3 confirmed that the economic performance of Arab economies was severely affected by the deterioration of foreign trade and FDI inflows during the financial crisis. In other words, this initial economic analysis suggested a positive relationship between competitiveness, foreign trade and FDI, which we shall now test formally.

As for the other independent variables, we select domestic credit to the private sector, corruption, inflation, labour productivity and nominal exchange rate to be control variables, reflecting macroeconomic management in Arab countries. We find these variables to be significantly and positively related to competitiveness as mentioned in Document 2 and earlier in this document, when we analysed the competitiveness indicators measured by international organizations like the World Economic Forum (WEF) and Institute for Management Development (IMD). It is also worth mentioning that we would have liked to include productivity and REER as independent variables, but we could not, given a lack of data availability. We have thus done the next best thing in the circumstance, by including proxy variables: labour productivity and the nominal exchange rate.

To estimate the effects of FDI and foreign trade on the competitiveness of Arab countries, we obtain annual data spanning the period 1998-2009 on the relevant variables. These data are collected from domestic and international sources, as set out in Table 1, along with the expected signs on the variables as derived from economic theory.

Table (1): details of Data

Variables	Data Sources	Data Description	Period Covered	Expected Sign
GDP	AMF	US$	1998-2009	Dependent variable
GDP (lagged one year)	AMF	US$	1998-2008	Positive
FDI inflows (net)	UNCTAD	US$	1998-2009	Positive
Trade Openness	WB	Percentage	1998-2009	Positive
Domestic Credit to private Sector	WB	Percentage of GDP	1998-2009	Positive
Inflation	IMF	Ratio change	1998-2009	Negative
Corruption	Economic Freedom	Indicator	1998-2009	Negative
Labour Productivity	Calculated by Author	US$	1998-2009	Positive
Nominal Exchange Rate	IMF	Local Currencies	1998-2009	Positive

Source: Author's compilation

5.5. Statistical Description of the Model Variables

In this part, we provide a descriptive analysis of the variables used in the model. Our discussion includes trend analyses for each variable over the period 1998-2009. In particular, we provide statistical analyses including median, minimum value, maximum value and standard deviations of the variables, (Appendices A&B). We perform the econometric and statistical analyses using EViews 7 software.

Gross Domestic Product

Median GDP for Arab countries over 1998-2009 was US$ 29,133 million. The maximum value is US$ 476,305 million (Saudi Arabia in 2008); the minimum value is US$ 1,081 million (Mauritania in 2000).

The standard deviation for GDP in Arab countries over 1998-2009 was 72,859 indicating a very high level of variability between Arab countries. This reflects the different economic structures in these countries, as some of them have large and diversified economies such as KSA, UAE, Kuwait and Egypt, compared to others that have small economies, such as Mauritania and Jordan.

Net Foreign Direct Investment

The median value of FDI in Arab countries is US$ 531 million and the maximum value is US$ 38,515 million achieved by Saudi Arabia in 2008. The minimum value for the variable is a net outflow of US$ 985 million registered by the United Arab Emirates in 1999.

The standard deviation of FDI is US$ 4,359 million reflecting a very high level of variability between different Arab countries in attracting FDI inflows. Large countries like KSA, UAE, Kuwait and Egypt are likely to attract a large amount of FDI inflows compared to small countries, such as Mauritania and Jordan.

Corruption[30]

The median value for the corruption indicator is 56.5 for Arab countries and the maximum value is 90, recorded by Qatar in 1998. The minimum value for the indicator is 10 registered by Yemen, Syria and Libya during the period 1998-2004 and Lebanon during the periods 1998-2000 and 2002-2004.

The standard deviation for the corruption indicator is 22.25 reflecting a high level of variability between different Arab countries. This is attributable to diversity in characteristics of each country and in procedures taken against corruption in these countries.

Inflation

The median value during the period 1998-2009, is 3.35 per cent. The maximum value is 132.82 per cent registered by Sudan in 1998 whereas the minimum value is -9.8 recorded by Libya in 2002.

[30] Corruption indicator ranges between the values 0 and 100, where the number 100 refers to the presence of very low degree of government corruption. While the number 0 indicates the high level of government corruption.

The standard deviation for the inflation rate in Arab countries during the period 1998-2009 is 10.72, indicating a high level of variability between in these countries due to variations in macroeconomic management.

Domestic Credit to Private Sector

The median value of domestic credit to private sector as percentage of GDP in Arab countries is 63.9 per cent and the maximum value is 93 per cent, achieved by the United Arab Emirates in 2009. The minimum value for this variable is 0.0 per cent recorded by Mauritania during the period 1998-2004.

The standard deviation for domestic credit to private sector as percentage of GDP in Arab countries is 25.2 per cent, indicating a very high level of variability between Arab countries. This variation is due to variations in liquidity levels as some countries have enough liquidity to lend their private sectors, whereas other countries may suffer from the lack of liquidity.

Trade Openness

The median value in Arab countries is 69 percent and the maximum value is 159.2 percent achieved by the United Arab Emirates in 2008. The minimum value is 12.8 percent, recorded by Sudan in 1998.

The standard deviation of trade openness indicator in Arab countries is 30.1 percent, indicating a very high level of variability across Arab countries. This is related to

the significance of the trade sector in GDP composition for each country, as some Arab countries, notably oil exporters, have a large volume of trade such as KSA, UAE, Kuwait and Egypt, compared to other small countries such as Mauritania and Jordan.

Labour Productivity

The median value of Labour Productivity in Arab countries is US$ 11485.8. The maximum value is US$ 99529, achieved by Qatar in 2008. The minimum value for the variable is US$ 2303.8, registered by Syria in 1995.

The standard deviation of Labour Productivity is US$ 23486 reflecting a very high level of variability between different Arab countries in labour productivity. This reflects the high values of labour productivity, as a result of high values for GDP (in constant prices) and a small number of workers in some countries such as KSA, UAE, Kuwait and Qatar, compared to other Arab countries.

Nominal Exchange Rate (each Arab currency vis a vis the US $ dollar)

The median value in Arab countries is 3.7 and the maximum value is 1621.4 achieved by Lebanon in 1995. The minimum value is 0.3, recorded by Kuwait (under a fixed exchange rate regime).

The standard deviation of the nominal exchange rate in Arab countries is 357.3, indicating a very high level of variability across Arab countries.

5.6. Previous Empirical Studies

As mentioned earlier, and previously in Documents 2 and 3, hardly anybody has done this kind of empirical work, to the best of our knowledge – in general, but for Arab countries in particular. The aim of this thesis is to investigate the relationship between competitiveness, foreign trade and foreign direct investment, using a panel data model. We have found some working papers conducting panel data analysis to measure the competitiveness of the Visegrad Four (V4) countries[31]. These are discussed below. The similarity between our work and their work is in using a panel data model to interpret the effect of independent variables on competitiveness. They therefore confirm our choice of independent variables, as set out above. In addition, they used GDP per capita as a proxy for competitiveness (dependent variable) and also computed independent variables on a per capita basis. The wider literature also suggests other relevant variables, such as R&D, innovation and infrastructure. The present analysis is unable to include such variables, because of lack of data availability for the majority of Arab countries.

Melecký and Nevima (2011a) conducted panel data analysis to assess regional competitiveness in 15 European countries over the period 2000-2008. They applied a non-linear regression model of panel data using the technique of dummy variables. Average GDP is the dependent variable and they selected three arbitrary independent variables: gross fixed capital formation, gross domestic expenditures on research and development, and net disposable income. They considered the average value of EU27 GDP as an ideal region (the most competitive region). They found that the

[31] Is an alliance of four Central European states – Czech Republic, Hungary, Poland and Slovakia.

contributions of each statistically significant 22 NUTS 2[32] regions to the average level of whole EU27 performance, approximated by GDP per inhabitant in purchasing power standards (PPS). They ranked regions according to the positive score of parameter γr in their model, which means that region has a positive impact on the overall competitiveness of the EU27.

Also, Melecký and Nevima (2011b) applied that same model to evaluate regional competitiveness of the V4 countries. The empirical part of the paper utilised a panel nonlinear regression model for 35 V4 regions at NUTS level 2. Average GDP is the dependent variable and they selected five arbitrary independent variables: gross fixed capital formation, gross domestic expenditures on research and development, net disposable income, employment rate by age and number of students in tertiary education. They ranked the most competitive regions according to the highest contribution to average growth of the EU27. In addition, regions with the lowest contribution are considered the least competitive.

Nevima (2012) used a linear panel data regression model for 35 regions at NUTS level 2 of selected V4 countries. The competitiveness level is analysed by selected indicators evaluating the performance of the EU growth strategy objectives. Average GDP is the dependent variable and he selected three arbitrary independent variables: gross fixed capital formation, gross domestic expenditures on research and development, and net disposable income. He considered the average value of EU 27GDP as an ideal region (the most competitive region). He found that the

[32] The Nomenclature of Territorial Units for Statistics, is a geocode standard for referencing the subdivisions of countries for statistical purposes.

contributions of each statistically significant 22 NUTS 2 regions to the average level of the whole EU27 performance approximated by GDP per inhabitant in PPS. Regions are ranked according to the positive score of parameter γr in their model, which means that the region has a positive impact on the overall competitiveness of the EU27.

Melecký (2011) applied two methodological approaches in order to evaluate competitiveness: macro econometric modelling and Data Envelopment Analysis (DEA) in V4 NUTS 2 regions. Average GDP is the dependent variable and he selected five arbitrary independent variables: gross fixed capital formation, gross domestic expenditures on research and development, net disposable income, employment rate by age and number of students in tertiary education. He ranked the most competitive regions according to the highest contribution to average growth of the EU27. In addition, regions with lowest contribution are considered to be the least competitive. In addition, he found by applying the DEA method, the rate of efficiency in V4 NUTS 2 regions within the whole referred time period.

5.7. Panel Estimation

We performed this econometric analysis by using EViews 7. The results of the estimation will be presented as follows:

Generalized Method of Moments (GMM)

We adopt the Generalized Method of Moments (GMM) for a dynamic panel data model with fixed effects to estimate equation (1) for the period 1998-2009. In this specification, the dependent variable is regressed on its lagged valued and five other explanatory variables. We select a first difference transformation to remove the cross-section fixed effect. Also we employ dynamic period-specific (predetermined) instruments and the remaining regular instruments. Moreover, we adopt White period robust standard errors in our specification of the GMM weighting and coefficient covariance calculation choices.

Table 2 shows the results of the dynamic panel estimation. The table indicates that the dependent variable, GDP (in log form), is regressed on nine variables. These variables are foreign direct investment (FDI) in logs, trade openness (OPENESS) in logs, corruption (CORR) in logs, inflation rate (INF), domestic credit to the private sector (DCPS) and the lagged values of GDP, corruption, inflation and credit to private sector.

Table (2): Panel Estimation results: GMM

Dependent Variable: LGDP			
Explantory Variables	**Specification (1)**	**Specification (2)**	**Specification (3)**
LGDP(-1)	0.8871 (20.5077)***	0.8106 (20.7539)***	0.8164 (21.6620)***
LFDI	0.0222 (3.0370)***	0.0256 (2.9310)***	0.0257 (2.9398)***
LOPENESS	0.4248 (5.1989)***	0.4115 (5.5962)***	0.4175 (5.8513)***
LCORR	-0.0383 (-0.9784)		
LCORR(-1)		0.0360 (1.2246)	
DCPS	-0.0137 (-5.0596)***		
DCPS(-1)	0.0148 (6.8186)***	0.0058 (3.2327)***	0.0053 (2.9953)***
INF	-0.0007 (-0.2549)		
INF(-1)	0.0027 (2.8863)***	0.0019 (2.8807)***	0.0020 (3.1869)***
Total panel (balanced) observations	204	204	204
Number of Countries	17	17	17

Note: - absolute value of t-statistics in parentheses; *, **, ***: statistically significant at 10,5 and 1% respectively.
Source: Author's calculation using EViews (7) software package.

From specification (1), in Table 2, competitiveness in Arab countries is explained by LGDP(-1), LFDI, LOPENESS, DCPS, INF(-1), and DCPS(-1). However, INF and LCORR, are found to be insignificant. Therefore in the second specification in Table 2 we added the lagged value of the corruption variable and omitted the inflation variable in levels.

Specification (2) reveals that competitiveness in Arab countries is highly associated with LGDP(-1), LFDI, LOPENESS, INF(-1) and DCPS(-1). However, the corruption variable is still insignificant, despite using the

lagged value of the variable. We adjusted the model by changing the lagged value for the corruption variable but in vain. Therefore, in the third specification we reran the regression excluding insignificant variables.

From specification (3), the results of the dynamic model confirmed the EGLS results with fixed effects, presented in Document 4, but excluding the corruption variable. The findings show that competitiveness, proxied by GDP, is positively and highly associated with the inflows of FDI in Arab countries, which means that FDI increases the competitiveness of these countries. In addition, competitiveness is positively and significantly associated with trade openness or trade liberalization, which means that trade liberalization increases competitiveness.

Control variables reflecting macroeconomic management in a country, such as domestic credit to the private sector and the inflation rate, are found to be significantly and positively related to competitiveness. Moreover, the results showed that the lagged value of domestic credit to the private sector can boost competitiveness in Arab countries. Furthermore, we find in the dynamic model that lagged inflation is positively related to competitiveness, which also confirms the results of EGLS model in document 4. However, in theory, this variable is expected to be negatively correlated with competitiveness. The positive sign in our regression can be explained in terms of low levels of inflation in Arab countries. In fact, the region has the lowest average rate of inflation in the world (about 3.5%). In theory, low inflation (less than 10%) can be

conducive to high economic growth in developing countries (Thirlwall, 1999) and hence a high level of competitiveness.

The significance of the dynamic model is demonstrated by the probability of the J-statistic, which recorded (0000) as shown in the model results.

Above, we presented the results of the model run only with the variables we were able to obtain as desired. We now run the model including two proxy variables in place of data we would like ideally to include, but cannot given the absence of such data for the countries studied in this research. The proxy variables are labour productivity and the nominal exchange rate, standing in for productivity and the real effective exchange rate (REER). We reran the model with these two variables added. The model was otherwise run exactly as before.

Table 3 shows the results of the dynamic panel estimation of the extended model. The table indicates that the dependent variable, GDP (in log form), is regressed on eleven variables. These variables are foreign direct investment (FDI) in logs, trade openness (OPENESS) in logs, corruption (CORR) in logs, labour productivity (LPROD) in logs, nominal exchange rate (NEXCH) in logs, inflation rate (INF), domestic credit to the private sector (DCPS) and the lagged values of GDP, corruption, inflation and credit to private sector.

Table (3): Panel Estimation results: GMM

Dependent Variable: LGDP			
Explantory Variables	**Specification (1)**	**Specification (2)**	**Specification (3)**
LGDP(-1)	0.8236 (16.8797)***	0.7169 (12.7550)***	0.7050 (12.4295)***
LFDI	0.0173 (2.2910)**	0.0173 (1.8985)*	0.0148 (2.1695)**
LOPENESS	0.4778 (5.6024)***	0.4895 (5.0449)***	0.3761 (5.3859)***
LCORR	-0.0395 (-0.8466)		
LCORR(-1)		0.0182 (0.3862)	
DCPS	-0.0114 (-5.1222)***		
DCPS(-1)	0.0158 (6.6351)***	0.0105 (3.9573)***	0.0075 (2.9005)***
INF	-0.0013 (-0.5586)		
INF(-1)	0.0030 (5.1723)***	0.0022 (2.7006)***	0.0036 (3.3902)***
LPROD	0.0000 (3.5717)***	0.00002 (2.6753)***	0.4941 (5.1724)***
LNEXCH	-0.0009 (-0.6913)	-0.0016 (-0.4856)	0.1443 (2.1187)**
Total panel (balanced) observations	204	204	204
Number of Countries	17	17	17

Note: - absolute value of t-statistics in parentheses; *, **, ***: statistically significant at 10,5 and 1% respectively.
Source: Author's calculation using EViews (9) software package.

The results of the extended model confirm the significance of and signs on the variables as determined previously. In addition, the two new variables were also found to be significant (and, as expected *a priori*, with positive signs). Thus competitiveness is positively and significantly associated with labour productivity in Arab countries. In addition, competitiveness is positively and significantly associated with the nominal exchange rate. Thus a depreciation of the nominal exchange rate of Arab local currencies against the US$ Dollar increases the

competitiveness of Arab economies. The probability of the J-statistic confirmed the significance of the second model

In addition, we added an interaction term between FDI and economic freedom index (and trade openness and the economic freedom index) in order to bring out the channel as to whether some Arab countries with greater economic freedom are able to benefit more (if the interaction term is positive and significant). The results found that both of these interaction terms were insignificant.

5.8 Discussion and Conclusions

In Document 4 we adopted EGLS allowing for fixed effects, using the same variables as the GMM model, plus the corruption variable but without labour productivity and nominal exchange rate variables. The results indicated that the competitiveness of Arab countries, proxied by GDP, is positively and highly associated with GDP lagged one year, which confirm that GDP growth in the previous year has a positive impact on the competitiveness of Arab countries. Also, competitiveness is positively and highly associated with the inflows of foreign direct investment (lagged one year), which means that a rise in FDI inflows of the previous year increases the competitiveness of these countries. In addition, competitiveness is positively and significantly associated with the lagged value of trade openness, which means that trade liberalization increases

competitiveness. However, the effect occurs after a one year lag. Control variables reflecting macroeconomic management in Arab countries, such as domestic credit to private sector, corruption and inflation, are found to be significantly and positively related to competitiveness.

We mentioned earlier that the expected sign for each variable, according to the economic theory, is positive for GDP (lagged one year), FDI inflows, trade openness, domestic credit to the private sector, labour productivity and the nominal exchange rate, whereas the expected sign for inflation and corruption is negative.

When we compare the expected sign with the actual sign for each variable, we find that the signs for the variables GDP (lagged one year), FDI, trade openness, domestic credit to private sector, labour productivity and the nominal exchange rate, go on with the expected sign according to economic theory. However, the actual signs for the variables corruption and inflation are positive and not according to the expected signs for these variables.

The results indicate that an improvement in the provision of domestic credit to the private sector (lagged one year), labour productivity and the nominal exchange rate are the main factors that can boost competitiveness in Arab countries. However, the existence of corruption (lagged two years) in these countries increases competitiveness. Concerning the positive relationship between corruption and competitiveness in Arab economies, in spite of this result being against standard economic theory, we found in the economic literature evidence that corruption can

improve economic growth, especially in economies characterised by low levels of governance or a high degree of regulation (Hodge et al., 2009). This result is confirmed by Meon and Weill (2008), who found that there is a negative effect of corruption in countries with effective institutions, but a positive effect in countries with ineffective institutions. In addition, Rock and Bonnett (2004) found that, in most developing countries, corruption reduces growth and investment, whereas they found that, in large East Asian countries (such as China, Indonesia, South Korea, Thailand, and Japan), corruption positively supports economic growth.

The positive relationship between competitiveness, foreign trade and FDI confirms the main findings of Document 3. The economic analysis conducted in Document 3 indicated that FDI and foreign trade are the main channels affecting the competitiveness of Arab countries. The consequences of the financial crisis hit GDP hard and, accordingly, the competitiveness of Arab economies. The transmission channels of the crisis to the real sectors in Arab countries were mainly the decline in oil and non-oil exports, due to weak global demand, and the deterioration of foreign direct investment inflows from the main trade and investment partners, which represent the sectors impacted most by the crisis.

Moreover, the empirical analysis in this Document had shown that control variables, reflecting macroeconomic management in Arab countries, such as domestic credit to the private sector, corruption, inflation, labour productivity and the nominal exchange rate are found to be significantly and positively related to competitiveness. Regarding domestic credit to the private sector, the economic analysis in Document 3 showed that the

consequences of the financial crisis put many pressures on the liquidity conditions in many Arab countries, as a result of the drastic decline in net foreign assets, which affected negatively the domestic liquidity and accordingly domestic credit to the private sector. Therefore, most Arab central banks intervened to alleviate the liquidity constraints using different monetary tools. Within this context, interest rates have been reduced, legal reserve ratios have been decreased and the level of government deposits in banking sectors has been increased.

Chapter 6

Conclusion and Recommendations

In this thesis, we have undertaken an empirical analysis to explore the relationship between competitiveness, foreign trade and FDI for Arab economies. To the best of our knowledge this work, as we showed in Document 2[33], is something that has received little attention in the literature. Econometrics is used in this novel analysis in order to interpret the findings of the economic analysis conducted in Document 3 and in the previous chapters of this thesis. We adopt an econometric model panel data methodology, by applying a GMM model for dynamic panel data with fixed effects. To estimate the effect of FDI and foreign trade on the competitiveness of Arab countries, we use annual data, for 17 Arab countries[34], spanning the period 1998-2009.

The results of the dynamic model applied in this thesis confirmed the results of Generalized Least Square Estimator (EGLS) allowing for fixed effects which was adopted in Document 4, for all variables other than the corruption variable. The findings show that competitiveness proxied, for reasons explained above, by the GDP of Arab countries, is positively and strongly associated with the inflows of FDI, which means that FDI increases the competitiveness of these countries. In addition, competitiveness is positively and significantly associated with trade openness or trade liberalization which means that trade liberalization increases competitiveness.

[33] From our DBA project.

[34] Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen.

Control variables reflecting macroeconomic management in a country, such as domestic credit to the private sector, inflation rate, labour productivity and the nominal exchange rate are found to be significantly and positively related to competitiveness. Moreover, the results showed that the lagged value of domestic credit to private sector can boost competitiveness in Arab countries. Furthermore, we find in the dynamic model that the lagged value of inflation is positively related to competitiveness in Arab countries, which confirms the results of the EGLS model adopted in document 4.

The positive relationship between competitiveness, foreign trade and FDI confirms robustly the main findings of Document 3 and the previous chapters in our thesis. The economic analysis conducted in Document 3 and earlier chapters indicate that FDI and foreign trade are the main channels affecting the competitiveness of Arab countries. The consequences of the financial crisis hit GDP hard and, accordingly, the competitiveness of Arab economies. The transmission channels of the crisis to the real sectors in Arab countries were mainly the decline in oil and non-oil exports, because of weak global demand, and the deterioration of FDI inflows from the main trade and investment partners, which represent the sectors impacted most by the crisis.

The empirical analysis above has also shown that control variables, reflecting macroeconomic management in Arab countries, such as domestic credit to the private sector, inflation, labour productivity and the

nominal exchange rate are found to be significantly and positively related to competitiveness. Regarding domestic credit to the private sector, the economic analysis in Document 3 showed that the consequences of the financial crisis put many pressures on the liquidity conditions in many Arab countries, as a result of the drastic decline in net foreign assets, which affected negatively the domestic liquidity and accordingly domestic credit to private sector. Therefore, most Arab central banks intervened to alleviate the liquidity constraints using different monetary tools. Within this context, interest rates have been reduced, legal reserve ratios have been decreased and the level of government deposits in banking sectors has been increased.

The work conducted in Document 4 and in this thesis represent a key part of our novel story, shown in the literature review in Document 2 and in Chapter 1 here, that to the best of our knowledge nobody else has done similar work to explore the relationship between competitiveness, foreign trade and FDI for Arab economies. We have used the macroeconomic analysis provided in Document 3 and the earlier chapters here to underpin the quantitative analysis. This has included an econometric model using panel data for the period 1998-2009, in order to investigate the relationship between competitiveness, foreign trade and foreign direct investment. In other words, we link in this Document the analysis of macroeconomic performance of Arab countries from earlier DBA documents with the results of the quantitative analysis for Arab countries.

Notwithstanding the identification above of key factors that address boost competitiveness, Arab countries still face several challenges in delivering improved competitiveness. These challenges include economic vulnerabilities, labour market distortions, fiscal sustainability, and the need to create a more attractive business environment.

Concerning economic vulnerabilities, our analysis in the previous chapters showed the dependency of Arab economies on oil and other natural resources which increases the exposure of these countries to external shocks. Arab oil exporting countries have suffered since the end of 2014 from low oil prices, which obliged these economies to shrink their public expenditures and remove subsidies gradually. These low oil prices raise the importance of adopting policies that could encourage economic diversification for these economies in the coming years. Arab oil importing countries face the challenge of low prices for the exports of primary goods, which affect the proceeds of foreign exchange. In addition, the poor performance of the international economy impacted the competitiveness of exports, proceeds of tourism and FDI inflows in these countries. Moreover, the mentioned sectors also were affected by the internal developments resulting from the Arab spring. Despite low oil prices helping to decrease the imports of petroleum products, these countries were affected by low levels of labour remittances in the gulf area.

Improving Arab economies' competitiveness must address labour market distortions, because the qualifications of labour do not match the qualifications required in the market. The competitiveness indicators, presented in Chapter 2, showed that Arab countries are ranked lower than their peers from other regions in

the fields of education and labour market efficiency. The education systems in these countries are not developed enough to provide the required skilled labour. Therefore the competitiveness of Arab countries still faces the challenge of inefficiency of labour markets.

Moreover, Arab countries are facing the challenge of maintaining fiscal sustainability, as a result of low oil prices. Oil revenues constitute over 90% of public revenues for oil exporting countries. Therefore these countries have adopted multiple measures in recent years in order to diversify their revenues and create the fiscal space required to spur the economic growth of these countries. Despite these efforts, Arab oil exporting countries will face the challenge of fiscal sustainability with a lack of financial resources, given low oil prices. Arab oil importing countries, however, do not have the fiscal space that can be used to spur the economic growth and competitiveness. Public revenues in these countries were affected negatively by the level of economic activity.

In addition the Arab Spring led to growing social demands and the trend of governments to increase spending to increase workers' salaries in the government sector, and to raise social spending. Consequently, these developments forced many Arab countries to borrow, which increased public debt. There is no doubt that the large increase in the levels of public debt for the Arab countries have many negative repercussions on macroeconomic performance and the competitiveness of Arab countries, across a number of channels. The main channels include the effect of crowding out caused by increased borrowing from the domestic market, which negatively affects the credit granted to the private sector, raising its cost. The high

burden of domestic debt service in some Arab countries drains a large portion of public revenues annually. This does not allow room for more spending on infrastructure, education, health and other sectors, as drivers of economic growth in the future. In addition, high external public debt service affects the levels of available foreign exchange and generates pressures on the value of domestic currency.

Also, Arab countries are facing the challenge of improving the business environment to be more attractive, in order to spur the competitiveness of this group of countries. The limited fiscal space, in both Arab oil exporting and importing countries, is the main obstacle confronting improving the business environment in Arab countries. This limited fiscal space will limit the capabilities of these economies to improve the business environment in future years.

The findings of the econometric analysis and the discussion above highlight the positive effects that FDI, trade, productivity and exchange rates can have on competitiveness. Given this, we offer the following **recommendations** to improve the competitiveness of Arab countries in the coming years:

- Improve the investment climate in Arab countries that can attract more FDI to the region. This require enhancing the following:
    - Create a suitable macroeconomic environment through adopting suitable fiscal, monetary, and exchange rate policies.
    - Central Banks should adopt policies to encourage banks to facilitate access to finance.

- Adopt policies that can improve economic governance, accountability, transparency and institutional performance in the Arab region.
- Improve infrastructure, including transportation, electricity and communications, as well as to other factors such as property rights, entry regulations, tax burden, and labour. All these factors are needed to improve the competitiveness ranking of the Arab economies.
- The importance of political stability and security in fostering the economic performance, to increase foreign investors' confidence and competitiveness in Arab countries.

- Enhancing labour productivity is crucial to promote competitiveness in Arab economies. Therefore, there is a need to pay attention to micro-economic reforms, especially labour and product market reforms aiming at increasing the levels of flexibility of these markets to increase productivity and competitiveness levels. Equally important is the need to reform education, health, and vocational training sectors to improve labour skills and to increase the return on investment in human capital.
- Encouraging women's participation in the labour market to increase productivity, especially as women's participation in the labour force in Arab countries is amongst the lowest globally.
- Adopting more flexible exchange rate regimes in Arab countries will help these economies to ensure the optimal allocation of economic resources, increase economic resilience and improve competitiveness. In this context, it is very important for Arab countries, especially those with more diversified economies, to shift towards more flexible exchange rate regimes, in order to enhance the competitiveness of their non-oil exports to the rest of the world.

- Infrastructure in all ports should be improved and computerized in order to facilitate trade between Arab countries and with the rest of the world.
- Enhance trade negotiations between Arab countries and the rest of the world, in order to reinforce trade agreements and facilitate trade, both between Arab countries and with the rest of the world.
- To take advantage of bilateral and multilateral trade agreements to reduce trade barriers between Arab countries and the rest of the world, that hinder the flow of goods and services. These include tariff and non-tariff barriers, such as import quotas, export restrictions, export subsidies, technical specifications, environmental requirements and sanitary standards.
- Reduce the continued control of the government sector on a large proportion of raw materials, production elements, employment of national labour in Arab countries. Enhance the involvement of the private sector in bilateral and multilateral trade negotiations of Arab countries with the rest of the world.
- To create more diversified Arab economies and improve competitiveness of Arab countries, we recommend the following strategy:
    - Oil exporting countries, should be encouraged to establish petrochemical industries, and energy intensive industries such as aluminium. This is in order to benefit from their comparative advantages in natural resources (mainly oil and gas).
    - Oil importing countries should encourage labour intensive industries such as textiles, garments, shoes, and simple electronics assembly. This is in order to benefit from comparative advantages in natural resources and labour.
    - Arab countries should adopt policies that encourage developing these industries mentioned above, to move to more sophisticated

industries such as automobiles shipbuilding, steel, and semiconductors.

- The improved business and investment climate will help to attract multinational companies to collaborate with Arab countries, in starting both kinds of industries mentioned above (basic and sophisticated industries).
- These recommendations will help to increase the exports of Arab countries via improved competitiveness of this region.

Limitations and Areas for Future Research, One of the main limitations we faced during our DBA journey is that, to the best of our knowledge, nobody else has done similar work to explore the relationship between competitiveness, foreign trade and FDI for Arab economies. Finding similar work will give us reference guidelines and experience in tackling the same issue; therefore not finding any similar work conducted on the Arab region is seen as one of the obstacles during our journey.

In addition, despite the importance of productivity, which is considered as one of the main indicators of competitiveness, we do not include this variable in our empirical model for two reasons. First, the purpose of our empirical work is to investigate the relationship between competitiveness, foreign trade and FDI. Second, there are limitations in data availability for the productivity variable in the majority of Arab countries during the period of analysis. In addition, data availability is also an obstacle to collecting data for the real effective exchange rate (REER) for the majority of Arab countries. REER is considered also as a key indicator for measuring a country's competitiveness.

As a result, we were able only to include a proxy variable for each of productivity and the REER: labour productivity as a proxy for productivity (calculated according to International Labour Organization methodology); and the nominal exchange rate as a proxy for the REER variable.

Therefore, in future research, when data are available, I would like to investigate the effect of productivity and REER on the competitiveness of the Arab region.

Moreover, in the future I would like to study the effects of corruption on FDI inflows and economic growth in Arab countries, given the different findings from the models presented in Document 5 and this thesis. Also, I would like to investigate the determinants of FDI in Arab region. Finally, concerning foreign trade, I would like to conduct gravity model analysis in to measure the determinant of foreign trade flows for the Arab countries.

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Appendixes

Chapter 1

Annex Table (1/1)

Economic indicators for Arab countries compared to the world

(2000-2015)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
World economic growth rate	4.83	2.49	2.92	4.29	5.40	4.86	5.49	5.65	3.02	-0.05	5.41	4.22	3.46	3.28	3.41	3.09
Arab economic growth rate	6.32	2.44	2.49	7.07	14.04	5.73	7.01	5.63	6.11	1.75	3.94	4.99	4.60	3.59	2.53	2.90
World trade growth rate	12.33	0.262	3.754	5.679	11.351	7.725	9.254	7.969	3.011	-10.452	12.371	7.063	2.779	3.388	3.489	2.831
World inflation rate	4.77	4.62	3.64	3.85	3.76	4.05	4.00	4.27	6.31	2.67	3.68	5.05	4.08	3.66	3.23	2.78
Arab inflation rate	2.60	2.10	2.60	3.70	5.80	5.50	6.60	8.40	10.10	3.90	4.40	5.80	7.00	9.40	6.00	6.10
The youth unemployment rate of Arab countries	..	..	..	28.40	28.20	27.10	25.70	24.40	23.90	23.50	23.70	27.20	27.90	27.90	..	..
Domestic liquidity growth rate of Arab countries	9.25	11.93	13.76	13.38	16.26	18.36	20.03	24.06	18.81	11.61	10.67	12.02	11.48	13.69	10.16	4.17
The balance of the general budget of the GDP of the Arab countries	0.87	-3.09	-4.72	0.20	4.00	8.90	11.30	7.10	12.70	-2.60	0.40	3.90	5.80	2.40	1.90	-8.30
The balance of current account balance to GDP of the Arab countries	7.70	3.80	11.20	14.50	16.20	22.20	24.30	19.90	16.10	2.60	7.30	14.60	15.60	12.10	7.90	-4.20
Official foreign reserves of the Arab countries (Million US dollar)	105330.38	119965.82	136369.07	166193.69	205572.18	250434.53	321993.13	754178.27	918522.95	923321.93	1008235.12	1123316.49	1282581.18	1384788.48	1358610.15	1196064.35
change in formal reserves of the Arab countries	..	13.89	13.67	21.87	23.69	21.82	28.57	134.22	21.79	0.52	9.20	11.41	14.18	7.97	-1.89	-11.96
Oil prices (OPEC basket) (US dollar per barrel)	27.60	23.10	24.30	28.01	36.05	50.64	61.08	69.08	94.45	61.08	77.45	107.46	109.45	105.87	96.20	49.49

Source:

Data of Global Economy - International Monetary Fund, World Economic Outlook Database, (IMF, 2016).

Data of Arab Economy - Arab Monetary Fund, Joint Arab Economic Report Database, (AMF, 2016).

Annex Table (2/1)

Economic indicators for Arab countries compared to the world

(%)

	Average 2000-2008	Average 2009-2015
World economic growth rate	4.33	3.26
Arab economic growth rate	6.32	3.47
World trade growth rate	6.82	3.07
World inflation rate	4.36	3.59
Arab inflation rate	5.27	6.09
The youth unemployment rate of Arab countries	26.28	26.04
Domestic liquidity growth rate of Arab countries	16.20	10.54
The balance of the general budget of the GDP of the Arab countries	4.14	0.50
The balance of current account balance to GDP of the Arab countries	15.10	7.99
Official foreign reserves of the Arab countries (Million US dollar)	330951.11	1182416.82
change in formal reserves of the Arab countries	34.94	4.20
Oil prices (OPEC basket) (US dollar per barrel)	46.03	86.71

Source: Annex Table (1/1)

Annex (3/1)

Business Reforms in Middle East & North Africa[35]

✔=Doing Business reform making it easier to do business. ✗=Change making it more difficult to do business.

Algeria

DB 2016:

✔Algeria made **starting a business** easier by eliminating the requirement to obtain managers' criminal records.

✔Algeria made dealing with **construction permits** easier by eliminating the legal requirement to provide a certified copy of a property title when applying for a building permit.

DB 2015:

✔Algeria made **trading across borders** easier by upgrading infrastructure at the port of Algiers.

DB 2013:

✔Algeria improved **access to credit information** by eliminating the minimum threshold for loans to be included in the database.

DB 2012:

✔Algeria improved its **credit information** system by guaranteeing by law the right of borrowers to inspect their personal data.

DB 2010:

✔Algeria enhanced its **construction permitting** process by introducing new

[35] Source: http://www.doingbusiness.org/Reforms/Overview/Region/middle-east-and-north-africa

regulations aimed at improving the administration of the process and at ensuring the safe and timely completion of construction projects.

✔Algeria made **registering property** easier and less costly by reducing notary fees and eliminating the capital gains tax.

✔Algeria made **paying taxes** less costly for companies by reducing the corporate income tax rate for tourism, construction and public works, and the production of goods.

✔Algeria improved **contract enforcement** by introducing a new civil procedure code that reduces the steps and time required and by fully computerizing the courts, including by setting up an electronic case management system.

DB 2008:

✗Algeria made **trading across borders** more difficult by increasing the number of inspections carried out.

Bahrain

DB 2015:

✔Bahrain made **registering property** easier by reducing the registration fee.

✔Bahrain improved access to **credit information** by approving the credit bureau's collection of data on firms.

DB 2014:

✗Bahrain made **starting a business** more expensive by increasing the cost of the business registration certificate.

Bahrain reduced the maximum cumulative duration of fixed-term contracts, made **third-party notification** mandatory for redundancy dismissals and increased paid annual leave.

✔Bahrain improved access to **credit information** by starting to collect payment information from retailers.

DB 2011:

✗Bahrain made **registering property** more burdensome by increasing the fees at the Survey and Land Registration Bureau.

✔Bahrain made it easier to **trade** by building a modern new port, improving the electronic data interchange system and introducing risk-based inspections.

DB 2010:

✔Bahrain made dealing with **construction permits** easier by further consolidating preliminary approvals for building permits in the one-stop shop and reducing the time needed to obtain a building permit.

Djibouti

DB 2015:

✔Djibouti made dealing with **construction permits** less time-consuming by streamlining the review process for building permits.

DB 2014:

✔Djibouti made **starting a business** easier by simplifying the company name search and by eliminating the minimum capital requirement as well as the requirement to publish a notice of commencement of activities.

✔Djibouti strengthened its **secured transactions system** by adopting a new commercial code, which broadens the range of movable assets that can be used as collateral.

✔Djibouti made resolving insolvency easier through its new commercial code, which allows an insolvent debtor to file for preventive settlement, legal redress or liquidation and sets out clear rules on the steps and procedures for each of the alternatives available.

DB 2012:

✗Djibouti made dealing with **construction permits** costlier by increasing the fees for inspections and the building permit and adding a new inspection in the preconstruction phase.

✔Djibouti made **trading across borders** faster by developing a new container terminal.

DB 2010:

✗Djibouti made **paying taxes** easier for companies by replacing the consumption tax with a value added tax on the supply of goods and services.

DB 2009:

✔Djibouti reduced documentation requirements for **exporting and importing**, and time for importing, by improving port administration and eliminating some health and technical formalities.

DB 2008:

✔Djibouti made **property registration** faster by improving efficiency at the Service des Domaines.

✔Djibouti made **trading across** borders easier by implementing an electronic manifest system.

Egypt, Arab Rep.

DB 2016:

✔The Arab Republic of Egypt strengthened minority **investor protections** by barring subsidiaries from acquiring shares issued by their parent company.

DB 2015:

✔The Arab Republic of Egypt strengthened minority **investor protections** by introducing additional requirements for approval of related-party transactions and greater requirements for disclosure of such transactions to the stock exchange.

DB 2014:

✗Egypt made **paying taxes** more costly for companies by increasing the corporate income tax rate.

DB 2011:

✔Egypt reduced the **cost to start** a business.

✔Egypt made **trading** easier by introducing an electronic system for submitting export and import documents.

DB 2010:

✔Egypt made **starting a business** easier by eliminating the minimum capital requirement.

✔Egypt made dealing with **construction permits** easier by issuing executive articles implementing its new construction law and by eliminating most preapprovals for building permits.

✔In Egypt the private credit bureau I-score added retailers to its database, improving access to **credit information**.

✔Egypt made enforcing contracts easier by **creating commercial** courts.

DB 2009:

✔Egypt made **starting a business** easier by reducing the paid-in minimum capital requirement, abolishing bar association fees and automating tax registration.

✔Egypt made dealing with **construction permits** easier through a new building code establishing a single window for processing construction-related approvals.

✔Egypt speeded up **property registration** by simplifying administrative procedures, reorganizing the business workflow between the real estate registry and the Egyptian Surveying Authority and introducing time limits for several procedures.

✔Egypt improved access to **credit information** by guaranteeing borrowers' right to inspect their own data in the private credit bureau.

✔Egypt strengthened **investor protections** by introducing a requirement that an independent auditor assess related-party transactions before approval.

✔Egypt made **trading across borders** easier by upgrading port facilities at Alexandria and

speeding up customs clearance, while greater competition in the banking sector led to a reduction in the time to open a letter of credit.

DB 2008:

✔Egypt made **starting a business easier** by lowering registration fees, improving the process at the one-stop shop and reducing the minimum capital requirement.

✔Egypt made dealing with **construction permits** less costly by reducing the fee for registering a new building.

✔Egypt reduced the cost of **registering property** by introducing a low fixed fee.

✔Egypt improved access to **credit information** by creating a new private credit bureau, which will distribute negative data on both individuals and firms and, as guaranteed by law, allow borrowers access to their credit information.

✔Egypt made **trading across** borders easier by improving customs administration.

Iraq

DB 2012:

✗In Iraq **starting a business** became more expensive because of an increase in the cost to obtain a name reservation certificate and in the cost for lawyers to draft articles of association.

Jordan

DB 2015:

✔Jordan made **trading across** borders easier by improving infrastructure at the port of Aqaba.

DB 2012:

✔Jordan made **starting a business** easier by reducing the minimum capital

requirement from 1,000 Jordanian dinars to 1 dinar, of which only half must be deposited before company registration.

✔Jordan made **trading across borders** faster by introducing X-ray scanners for risk management systems.

DB 2011:

✔Jordan improved its **credit information system** by setting up a regulatory framework for establishing a private credit bureau as well as lowering the threshold for loans to be reported to the public credit registry.

✔Jordan abolished **certain taxes** and made it possible to file income and sales tax returns electronically.

DB 2010:

✔Jordan made **starting a business** easier by offering a single reception service for company registration at the company registrar.

✔Jordan made dealing with **construction permits** easier by extending the services of the one-stop shop in Greater Amman to midsize commercial construction projects.

✔Jordan made **registering property** easier by reducing the property transfer fees.

✔Jordan made **paying taxes** easier for companies by introducing an online filing and payment system and simplifying tax forms.

✔Jordan **reduced the time for exporting and importing** by implementing a risk-based inspection system with postdestination clearance for preapproved traders, reducing the number of containers subject to physical inspection and allowing online submission of customs declarations by fully implementing the ASYCUDA World electronic data interchange system.

✔Jordan improved its **contract enforcement system** by setting up a specialized commercial court division, equipping its courts with a computer-aided case

management system and raising the ceiling for cases heard by the lower court to improve the distribution of the caseload.

DB 2009:

✔Jordan made **starting a business easier** by reducing the paid-in minimum capital requirement by more than 96%.

DB 2008:

✔Jordan reduced the time and number of procedures to **start a business** by enhancing the operations of the one-stop shop at the company registry and adding the presence of a representative of the municipality of Amman.

Kuwait

DB 2016:

✔Kuwait made **starting a business** easier by reducing the minimum capital requirement.

DB 2015:

✗Kuwait made **starting a business** more difficult by increasing the commercial license fee.

DB 2014:

✗Kuwait made **starting a business** more difficult by increasing the minimum capital requirement.

✔Kuwait strengthened **investor protections** by making it possible for minority shareholders to request the appointment of an auditor to review the company's activities.

DB 2011:

Kuwait increased the number of days of paid annual leave and increased the notice period applicable in case of redundancy dismissals.

DB 2010:

✔Kuwait reduced the time required for **customs clearance** by improving administrative procedures and staff training.

✔Kuwait enhanced its **insolvency process** by introducing a new legal procedure that enables financially distressed companies on the verge of insolvency to restructure.

DB 2008:

✔Kuwait reduced the time required for dealing with **construction permits** by introducing an automated system for issuing technical approvals for utility connections.

✔Kuwait's private credit bureau expanded its coverage by adding retailers to those supplying it with **credit information**.

Lebanon

DB 2016:

✗Lebanon made **transferring property** more complex by increasing the time required for property registration.

DB 2012:

✔Lebanon made **getting electricity** less costly by reducing the application fees and security deposit for a new connection.

DB 2011:

✗Lebanon increased the **cost of starting a business**.

✔Lebanon improved its **credit information** system by allowing banks online access to the public credit registry's reports.

DB 2010:

✔Lebanon made **starting a business** easier by eliminating the requirement to have company books stamped—though it also made it more difficult by reversing a previous reform combining tax and company registration at LibanPost.

✔Lebanon made **paying taxes** easier for companies by eliminating the requirement to obtain permission to use accelerated depreciation and by introducing electronic payment.

DB 2009:

✔Lebanon reduced the time required to **start a business** by streamlining the business registration process.

Morocco

DB 2016:

✔Morocco made **starting a business** easier by eliminating the need to file a declaration of business incorporation with the Ministry of Labour.

✗Morocco made dealing with **construction permits** more difficult by requiring architects to submit the building permit request online, along with supporting documents, and to follow up with a hard-copy submission. On the other hand, Morocco reduced the time required to obtain an urban certificate.

1) Morocco implemented an unemployment insurance scheme. 2) Morocco increased the minimum wage increased from 12.24 to 12.85 DH/hour as of July 1, 2014, according to decree n° 2.14.343 of June 2014, published in the official bulletin 5292.

✔Morocco made **property transfers** faster by establishing electronic communication links between different tax authorities.

✔Morocco made **paying taxes** easier for companies by improving the electronic platform for filing and paying corporate income tax, VAT and labour taxes. On the other hand, Morocco increased the rate of the social charge paid by employers.

✔The utility in Morocco reduced the time required for **getting an electricity** connection by providing fee estimates more quickly.

DB 2015:

✔Morocco made **trading across borders** easier by reducing the number of export documents required.

DB 2014:

✔Morocco made **starting a business** easier by reducing the company registration fees.

✔Morocco made **transferring property** easier by reducing the time required to register a deed of transfer at the tax authority.

✔Morocco made **paying taxes** easier for companies by increasing the use of the electronic filing and payment system for social security contributions.

DB 2013:

✔Morocco made **starting a business** easier by eliminating the minimum capital requirement for limited liability companies.

✗Morocco made **registering property** more costly by increasing property registration fees.

DB 2012:

✔Morocco made dealing with **construction permits** easier by opening a one-stop shop.

✔Morocco strengthened **investor protections** by allowing minority shareholders to obtain any nonconfidential corporate document during trial.

✔Morocco eased the administrative burden of **paying taxes** for firms by enhancing electronic filing and payment of the corporate income tax and value added tax.

DB 2011:

✔Morocco strengthened **investor protections** by requiring greater disclosure in companies' annual reports.

DB 2010:

✔Morocco improved access to **credit information** through a new private credit bureau that started operations.

DB 2009:

✔Morocco improved access to **credit information** by guaranteeing borrowers' right to inspect their own data in the public credit registry.

✔Morocco made **paying taxes** less costly for companies by reducing the corporate income tax rate, exempting gains made from the sale of certain buildings from the capital gains tax and abolishing fixed registration duty rates on deeds—though it also increased the tax rates on insurance contracts.

✔Morocco reduced the time for **exporting and importing** by eliminating the container identification card.

DB 2008:

✔Morocco made dealing with **construction permits** easier by introducing a one-stop shop, which reduced the time required for permit applications.

✗Morocco made **registering property** more complicated by implementing a

requirement to check several tax agencies—rather than just one—in order to obtain a tax clearance certificate.

✔Morocco made **trading across borders** easier by introducing a risk-based inspection system.

Oman

DB 2016:

✔Oman reduced the time for **border compliance for both exporting and importing** by transferring cargo operations from Sultan Qaboos Port to Sohar Port.

✔Oman improved the regulation of outages by beginning to record data for the annual system average interruption duration index (SAIDI) and system average interruption frequency index (SAIFI).

DB 2013:

Oman reduced the maximum number of **working days** per week and increased the paid annual leave applicable for employees with one year of service.

✔Oman improved access to **credit information** by guaranteeing borrowers' right to inspect their personal data.

DB 2012:

✔The one-stop shop in Oman introduced online company registration and sped up the process to **register a business** from 7 days to 3 days.

✔Oman improved its **credit information system** by launching the Bank Credit and Statistical Bureau System, which collects historical information on performing and nonperforming loans for both firms and individuals.

✔Oman enacted a new income tax law that redefined the scope of **taxation**.

DB 2010:

✔Oman made **starting a business easier** by introducing online name registration

and payment at the registry with a prepaid card.

✔Oman made **paying taxes** easier for companies through a new tax law modernizing the tax regime and simplifying procedures.

DB 2009:

✔Oman reduced the time and number of procedures to **start a business** by putting the one-stop shop into operation and simplifying licensing procedures.

Qatar

DB 2016:

✔Qatar reduced the time for **border compliance for importing** by reducing the number of days of free storage at the port and thus the time required for port handling.

DB 2014:

✔Qatar made **paying taxes** easier for companies by eliminating certain requirements associated with the corporate income tax return.

DB 2013:

✔Qatar reduced the **time to export and import** by introducing a new online portal allowing electronic submission of customs declarations for clearance at the Doha seaport.

DB 2012:

✔Qatar made **starting a business** easier by combining commercial registration and registration with the Chamber of Commerce and Industry at the one-stop shop.

✗Qatar made dealing with **construction permits** more difficult by increasing the

time and cost to process building permits.

✔Qatar improved its **credit information system** by starting to distribute historical data and eliminating the minimum threshold for loans included in the database.

DB 2011:

✗Qatar made **starting a business** more difficult by adding a procedure to register for taxes and obtain a company seal.

Saudi Arabia

DB 2016:

✔Saudi Arabia made **property transfers** faster by introducing a new computerized system at the land registry.

DB 2014:

✗Saudi Arabia made **trading across borders** more difficult by increasing the number of documents needed to export and import.

DB 2013:

✔Saudi Arabia made **paying taxes** easier for companies by introducing online filing and payment systems for social security contributions.

✔Saudi Arabia made **enforcing contracts** easier by expanding the computerization of its courts and introducing an electronic filing system.

✗Saudi Arabia made **getting electricity** more expensive by increasing the connection fees.

DB 2012:

✔Saudi Arabia made **starting a business** easier by bringing together

representatives from the Department of Zakat and Income Tax and the General Organization of Social Insurance at the Unified Center to register new companies with their agencies.

DB 2011:

✔Saudi Arabia made dealing with **construction permits** easier for the second year in a row by introducing a new, streamlined process.

✔An amendment to Saudi Arabia's commercial lien law enhanced **access to credit** by making secured lending more flexible and allowing out-of-court enforcement in case of default.

✔Saudi Arabia reduced the time **to import** by launching a new container terminal at the Jeddah Islamic Port.

✔Saudi Arabia speeded up the **insolvency process** by providing earlier access to amicable settlements and putting time limits on the settlements to encourage creditors to participate.

DB 2010:

✔Saudi Arabia made **starting a business** easier by introducing a one-stop center at the Ministry of Commerce that merged registration procedures and simplified publication requirements.

✔Saudi Arabia made dealing with **construction permits** less time consuming by introducing a 1-day permitting procedure that enables builders to obtain a temporary building permit allowing them to begin construction after 1 day and a final building permit after 1 week.

DB 2009:

✔Saudi Arabia reduced the time and cost to **start a business** by eliminating non-value-added formalities.

✔Saudi Arabia made **property registration** faster and easier by adopting a comprehensive electronic system for registering title deeds.

✔Saudi Arabia strengthened **investor protections** by prohibiting interested parties from voting on the approval of related-party transactions and by increasing sanctions against directors found liable for harm to a company resulting from a transaction in which they had a personal interest.

✔Saudi Arabia introduced strict deadlines for **bankruptcy procedures**, with the result that auctions of debtors' assets now take place more quickly than before.

DB 2008:

✔Saudi Arabia made **starting a business** easier by eliminating the paid-in minimum capital requirement and speeding up company registration.

✔Saudi Arabia's private **credit bureau launched** a commercial credit bureau that issues reports on companies, including on their credit exposure.

✔Saudi Arabia made **importing** easier by abolishing the requirement for a consular certificate, allowing the electronic transfer of data (and therefore eliminating the requirement for hard copies of documents) and improving the capacity of facilities in the port of Jeddah.

Syrian Arab Republic

DB 2013:

✔Syria improved access to **credit information** by establishing an online system for data exchange between all banks and microfinance institutions and the central bank's credit registry.

DB 2011:

✔Syria eased **business start-up** by reducing the minimum capital requirement for limited liability companies by two-thirds. It also decentralized approval of the company memorandum.

Syria eliminated the **severance payment obligation** but increased the notice period applicable in case of redundancy dismissals. Implemented a 100% pay premium for weekly holiday work and decreased the total term limit of fixed-term contracts.

✔Syria enhanced **access to credit** by eliminating the minimum threshold for loans included in the database, which expanded the coverage of individuals and firms to 2.8% of the adult population.

DB 2010:

✔Syria made **starting a business easier** by reducing the paid-in minimum capital requirement and making standard incorporation forms available online.

DB 2009:

✔Syria reduced the time and number of procedures to **start a business** through a new company law and commercial code simplifying the registration process, ending the involvement of the court and lawyers in the process and further simplifying tax registration.

✔The entry of private banks into the Syrian market led to faster issuance of letters of credit, making it easier to **trade across borders**.

DB 2008:

✗Syria made **starting a business** more difficult by enforcing the requirement for limited liability companies and joint stock companies to publish their memorandum of association in the official gazette and show proof of payment of the publishing fees.

✔Syria made **paying taxes** less costly for companies by reducing the corporate income tax rate—and also made it easier for large businesses by setting up a large-taxpayer unit.

Tunisia

DB 2016:

✔Tunisia made **paying taxes** less costly for companies by reducing the corporate income tax rate.

✔Tunisia reduced border compliance time for both **exporting and importing** by improving the efficiency of its state-owned port handling company and investing in port infrastructure at the port of Rades.

DB 2015:

✔Tunisia made **paying taxes** less costly for companies by reducing the corporate income tax rate.

✗In Tunisia **trading across borders** became more difficult because of a deterioration in port infrastructure (for example, in loading and unloading equipment) and inadequate terminal space.

DB 2014:

✗Tunisia made **starting a business** more difficult by increasing the cost of company registration.

DB 2011:

✔Tunisia introduced the use of electronic systems for payment of corporate income **tax and value added tax**.

✔Tunisia upgraded its electronic data interchange system for **imports and exports**, speeding up the assembly of import documents.

DB 2010:

✔Tunisia strengthened **investor protections** by enhancing approval and disclosure requirements for related-party transactions.

✗Tunisia made **paying taxes** more costly for companies by increasing employers' social security contribution rate.

✔Tunisia reduced the time required for **trading across borders** by enabling traders to electronically submit most documents required to clear cargo through the

TradeNet single-window system—though traders must still bring the original copies to customs for verification.

DB 2009:

✔Tunisia made **starting a business** easier by eliminating the paid-in minimum capital requirement.

✔Tunisia improved access to **credit information** by beginning to collect and distribute more detailed credit information from banks (including both positive and negative information) and guaranteeing by law the right of individuals and firms to inspect their credit data in all central bank offices.

✔Tunisia strengthened **investor protections** by allowing minority investors to request in court the rescission of related-party transactions that harm the company.

✔Tunisia made **paying taxes** easier for companies by introducing the option of téléliquidation, in which companies complete an online declaration of taxes while paying the taxes at a tax office.

✗Tunisia increased the time for **importing by introducing** a requirement for freight arriving at the port to be accompanied by a unit of the customs authority.

DB 2008:

✔Tunisia reduced the time needed to **register property** by computerizing property registry files.

✔Tunisia's public credit registry eliminated the minimum threshold for loans included in its database, improving access to **credit information**.

✔Tunisia made **paying taxes** less costly for companies by reducing the corporate income tax rate.

United Arab Emirates

DB 2016:

✔The United Arab Emirates made dealing with **construction permits** easier by streamlining the process for obtaining the civil defense approval.

✔The United Arab Emirates strengthened minority **investor protections** by barring a subsidiary from acquiring shares in its parent company and by requiring that a potential acquirer, upon reaching 50% or more of the capital of a company, make a purchase offer to all shareholders.

✔The United Arab Emirates made **enforcing contracts easier** by implementing electronic service of process, by introducing a new case management office within the competent court and by further developing the "Smart Petitions" service allowing litigants to file and track motions online.

✔The United Arab Emirates made **getting electricity** easier by reducing the time needed to provide a connection cost estimate.

DB 2015:

✔The United Arab Emirates made **transferring property** easier by introducing new service centers and a standard contract for property transactions.

✔In the United Arab Emirates the credit bureau improved access to credit information by starting to exchange **credit information** with a utility.

✔The United Arab Emirates strengthened minority **investor protections** by introducing additional approval requirements for related-party transactions and greater requirements for disclosure of such transactions to the stock exchange; by introducing a requirement that interested directors be held liable in a related-party transaction that is unfair or constitutes a conflict of interest; and by making it possible for shareholders to inspect the documents pertaining to a related-party transaction, appoint auditors to inspect the transaction and request a rescission of the transaction if it should prove to be unfair.

DB 2014:

✔The United Arab Emirates made **transferring property** easier by increasing the operating hours of the land registry and reducing transfer fees.

✔The United Arab Emirates strengthened **investor protections** by introducing greater disclosure requirements for related-party transactions in the annual report and to the stock exchange and by making it possible to sue directors when such transactions harm the company.

✔The United Arab Emirates made **getting electricity** easier by eliminating the requirement for site inspections and reducing the time required to provide new connections.

DB 2013:

✔The United Arab Emirates made **starting a business** easier by eliminating the requirement for a company to prepare a name board in English and Arabic after having received clearance on the use of office premises.

✔The United Arab Emirates made **paying taxes** easier for companies by establishing an online filing and payment system for social security contributions.

✔In the United Arab Emirates the Dubai Electricity and Water Authority made **getting electricity** easier by introducing an electronic "one window, one step" application process allowing customers to submit and track their applications online and reducing the time for processing the applications.

DB 2012:

✔The United Arab Emirates made **starting a business** easier by merging the requirements to file company documents with the Department for Economic Development, to obtain a trade license and to register with the Dubai Chamber of Commerce and Industry.

✔The United Arab Emirates improved its **credit information** system through a new law allowing the establishment of a federal credit bureau under the supervision of the central bank.

DB 2011:

✔The United Arab Emirates enhanced **access to credit** by setting up a legal framework for the operation of the private credit bureau and requiring that financial institutions share credit information.
✔The United Arab Emirates streamlined document preparation and reduced the **time to trade** with the launch of Dubai Customs' comprehensive new customs system, Mirsal 2.

DB 2010:

✔The United Arab Emirates made **starting a business** easier by abolishing the minimum capital requirement and simplifying documentation requirements for registration, including by eliminating the requirement to show proof of deposit of capital.

✔The United Arab Emirates made dealing with **construction permits** less time consuming by improving its online system for obtaining no-objection certificates, building permits and completion certificates.

✔The United Arab Emirates made **trading across borders** easier through greater capacity at the container terminal in Dubai, elimination of the requirement for a terminal handling receipt and improvements in the banking sector reducing the cost of trade finance products.

DB 2009:

✔The United Arab Emirates improved access to **credit information** by establishing a new private credit bureau that collects information on all loans and by guaranteeing borrowers' right to inspect their own credit data in the new bureau.

✔The United Arab Emirates made **enforcing contracts** easier by introducing electronic filing for court documents.

DB 2008:

✔The United Arab Emirates made **starting a business** easier by allowing publication of the company records at the Department of Economic Development.

✔The United Arab Emirates abolished the requirement for **severance payments**.

West Bank and Gaza

DB 2016:

✔West Bank and Gaza made dealing with **construction permits** easier by streamlining the process for obtaining the civil defense permit and for submitting the stamped concrete casting permit to the municipality.

✔The credit registry in West Bank and Gaza began to distribute **credit data** from retailers and utility companies.

DB 2015:

✔West Bank and Gaza made **paying taxes** easier for companies by introducing the option to make either 1 or 4 advance payments of corporate income tax.

DB 2014:

✔West Bank and Gaza made **starting a business** less costly by eliminating the paid-in minimum capital requirement.

West Bank and Gaza introduced a minimum wage.

DB 2013:

✗West Bank and Gaza made **transferring property** more costly by increasing the property transfer fee.

✔West Bank and Gaza improved access to **credit information** by guaranteeing borrowers' right to inspect their personal data.

DB 2011:

✗West Bank and Gaza made **starting a business** more difficult by increasing the lawyers' fees that must be paid for incorporation.

✔More efficient processes at Palestinian customs made **trading** easier in the West Bank.

DB 2010:

✗West Bank and Gaza made **starting a business** more difficult by increasing the minimum capital requirement.

✔West Bank and Gaza reduced the time required for **registering property** by completing a major project to computerize records at the land registry.

✔West Bank and Gaza speeded up **contract enforcement** by recruiting and training new judges, by appointing "enforcement judges" solely to handle matters relating to the enforcement of judgments and by fully implementing case management software.

DB 2009:

✔West Bank and Gaza reduced the time required to **start a business** by fully implementing the management information system at the commercial registry.

✗Dealing with **construction permits** became more costly in West Bank and Gaza as a result of rising prices for construction materials and price indexation.

✔West Bank and Gaza's public credit registry set up an online system for banks to share **credit information**.

DB 2008:

✔West Bank and Gaza's public **credit registry** eliminated the minimum threshold for loans included in its database and instructed banks to disclose all loans granted to customers.

✔West Bank and Gaza made **paying taxes** less costly for companies by reducing the corporate income tax rate.

Yemen, Rep.

DB 2015:

✗In the Republic of Yemen **trading across borders** became more difficult as a result of inefficient port operation.

DB 2012:

✗Yemen made **starting a business** more difficult due to the suspension of registration services at the one-stop shop.

✔The Republic of Yemen enacted a new **tax** law that reduced the general corporate tax rate from 35% to 20% and abolished all tax exemptions except those granted under the investment law for investment projects.

DB 2010:

✔The Republic of Yemen made **starting a business** easier by eliminating the requirement to obtain a bank account certificate for company registration.

✔The Republic of Yemen improved access to **credit information** by eliminating the minimum threshold for the loans reported and guaranteeing borrowers' right to view their credit reports.

✔The Republic of Yemen reduced the time required for **trading across borders** by implementing a risk-based inspection system and an electronic data interchange system.

DB 2009:

✔The Republic of Yemen reduced the time and number of procedures to **start a business** by launching a one-stop shop and eliminating the paid-in minimum capital requirement and the requirement for a company seal.

Annex Table (4/1)

Foreign Direct Investment Inflows to Arab countries

(2000-2015)

(Millions of US dollars)

Country/Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010	2011	2012	2013	2014	2015
Algeria	280.1	1,107.9	1,065.0	633.7	881.9	1,081.1	1,795.4	1,661.8	2,593.6	2,746.4	2,264.0	2,571.0	2,264.0	2,571.0	1,499.0	1,691.0	1,507.0	(587.0)
Bahrain	363.6	80.3	217.0	516.7	865.3	1,048.7	2,914.9	1,756.1	1,793.9	257.2	155.9	780.9	155.9	780.9	891.0	989.0	1,519.0	(1,463.0)
Djibouti	3.3	3.4	3.4	14.2	38.5	22.2	108.3	195.4	228.9	99.6	26.8	78.0	26.8	78.0	110.0	286.0	153.0	124.0
Egypt	1,235.4	509.9	646.9	237.4	2,157.4	5,375.6	10,042.8	11,578.1	9,494.6	6,711.6	6,385.6	(482.7)	6,385.6	(482.7)	6,881.0	5,553.0	4,612.0	6,885.0
Iraq	(3.1)	(6.5)	(1.6)	1,000.0	300.0	515.3	383.0	972.0	1,855.7	1,598.3	1,396.2	1,616.7	1,396.2	1,616.7	2,376.0	2,852.0	4,782.0	3,469.0
Jordan	913.3	273.6	238.2	547.0	936.8	1,984.5	3,544.0	2,622.1	2,826.3	2,413.1	1,650.8	1,469.0	1,650.8	1,469.0	1,497.0	1,798.0	2,009.0	1,275.0
Kuwait	16.3	(111.5)	3.6	(67.1)	23.8	233.9	121.3	111.5	(6.0)	1,113.6	318.7	398.6	318.7	398.6	3,931.0	2,329.0	953.0	293.0
Lebanon	964.1	1,451.2	1,336.0	2,860.0	2,483.7	3,321.5	3,131.7	3,376.0	4,333.0	4,803.6	4,279.9	3,200.0	4,279.9	3,200.0	3,674.0	2,833.0	2,906.0	2,341.0
Libya	141.0	(133.0)	145.0	143.0	357.0	1,038.0	2,064.0	3,850.0	3,180.0	3,310.0	1,909.0	0.0	1,909.0	0.0	1,425.0	702.0	50.0	726.0
Mauritania	40.1	76.7	67.4	101.9	391.6	814.1	154.6	139.4	342.8	(3.1)	130.5	45.2	130.5	45.2	1,383.0	1,154.0	500.0	495.0
Morocco	422.2	2,807.7	481.3	2,314.5	894.8	1,654.0	2,449.4	2,804.5	2,487.1	1,951.7	1,573.9	2,519.1	1,573.9	2,519.1	2,728.0	3,358.0	3,561.0	3,162.0
Palestine	62.0	19.2	9.4	18.0	48.9	46.5	18.6	28.3	51.5	300.5	180.0	213.8	180.0	213.8	244.0	177.0	160.0	120.0
Oman	83.2	5.2	122.2	494.1	228.9	1,539.7	1,596.9	3,331.6	2,951.9	1,508.5	1,141.7	788.0	1,141.7	788.0	1,040.0	1,626.0	739.0	822.0
Qatar	251.6	295.5	623.9	624.9	1,199.0	2,500.0	3,500.0	4,700.0	3,778.6	8,124.7	4,670.3	(86.8)	4,670.3	(86.8)	327.0	(840.0)	1,040.0	1,071.0
Saudi Arabia	183.0	504.0	453.0	778.5	1,942.0	12,097.0	17,140.0	22,821.1	38,151.0	32,100.0	28,105.0	16,400.0	28,105.0	16,400.0	12,182.0	9,298.0	8,012.0	8,141.0
Somalia	0.3	0.0	0.1	(0.9)	(4.8)	24.0	96.0	141.0	87.0	108.0	112.0	102.0	112.0	102.0	107.0	107.0	434.0	516.0
Sudan	392.2	574.0	713.2	1,349.2	1,511.1	2,304.6	3,534.1	2,425.6	2,600.5	1,816.2	2,063.7	1,936.0	2,063.7	1,936.0	2,488.0	3,094.0	1,251.0	1,737.0
Syrian Arab Republic	270.0	110.0	115.0	160.0	320.0	583.0	659.0	1,242.0	1,467.0	1,514.0	1,850.0	1,059.5	1,850.0	1,059.5	...	...	...	...
Tunisia	779.2	486.5	820.8	583.6	639.1	783.1	3,308.0	1,616.3	2,758.6	1,687.8	1,512.5	1,142.9	1,512.5	1,142.9	1,603.0	1,096.0	1,063.0	1,002.0
United Arab Emirates	(506.3)	1,183.8	95.3	4,256.0	10,003.5	10,899.9	12,806.0	14,186.5	13,723.6	4,002.7	5,500.0	7,679.0	5,500.0	7,679.0	9,602.0	10,488.0	10,823.0	10,976.0
Yemen	6.4	135.5	101.7	5.5	143.6	(302.1)	1,121.0	917.3	1,554.6	129.2	(93.3)	(712.8)	(93.3)	(712.8)	(531.0)	(134.0)	(1,787.0)	(1,191.0)
Total	**5,897.7**	**9,373.7**	**7,257.0**	**16,570.3**	**25,362.0**	**47,564.6**	**70,489.0**	**80,476.5**	**96,254.3**	**76,293.6**	**65,133.2**	**40,717.4**	**65,133.2**	**40,717.4**	**53,457.0**	**48,457.0**	**44,287.0**	**39,914.0**

Source: UNCTAD, UNCTADstat

Annex Table (5/1)

Export, Import, Trade Balance and Oil prices in Arab Countries

(Billion US Dollars)

Year	Exports	Imports	Trade Balance	Oil Price US $ per Barrel
2000	263.5	153.4	110.0	27.6
2001	239.8	160.0	79.8	23.1
2002	247.5	172.2	75.4	24.3
2003	305.9	194.8	111.1	28.2
2004	408.4	261.0	147.4	36
2005	562.2	316.2	246.0	50.6
2006	683.7	362.7	321.0	61
2007	795.8	479.9	315.9	69.1
2008	1,070.2	628.9	441.3	94.4
2009	736.9	547.5	189.4	61
2010	919.4	599.0	320.4	77.4
2011	1,235.2	690.0	545.3	107.5
2012	1,391.5	766.8	624.7	109.5
2013	1,376.0	811.4	564.6	105.9
2014	1,244.8	815.7	429.1	96.2
2015	864.5	746.3	118.3	49.5

Source : AMF, Joint Arab Economic Report database.

Chapter 2

Annex (1/2)

The competitiveness performance of individual Arab economies

In this Annex we analyse the competitiveness performance of each Arab country included in WEF (2015) report, compared with the report of 2010, and the developments that occurred between these two years. We will investigate the policies and measures adopted, together with the advantages and disadvantages facing each country. This will include an analytical view for the high or low performance of Arab countries.

As we saw in Chapter 2, some Arab countries achieved a strong competitiveness performance in 2015, including Qatar, United Arab Emirates and Morocco. Kuwait and Jordan however attained only a moderate competitiveness performance. The Arab countries with the lowest performance in the competitiveness ranking were the majority: Saudi Arabia, Oman, Bahrain, Algeria, Tunisia, Lebanon and Egypt.

Concerning the best-performing Arab countries, **Qatar** is ranked first among Arab countries and 14 in the world in 2015. The accumulated fiscal surpluses in previous years, due to high oil prices, and low government debt, saw Qatar ranked second in the world for macroeconomic environment. In addition, Qatar attained 5th and 4th

position, respectively, for high efficiency in goods and services markets, and physical security.

With regard to access to finance, Qatar is ranked 1st globally for loans facilitation and ease of access to loans. Also the government of Qatar is number 1 globally in acquiring the most recent technologies, given the patenting rate in Qatar is very low, ranked 29th globally. In addition, imports represent about 30 % of GDP, therefore Qatar needs to encourage trade and foreign direct investment, especially in technology transfer and know-how, bringing-in and improving the innovation culture among Qataris. WEF (2015) stated that the most problematic factors for doing business in Qatar included restrictive labour regulations, an inadequately educated workforce, an inefficient government bureaucracy, inflation and a poor work ethic in the labour force.

Looking forwards, WEF (2013) indicated that the Qatar national vision 2030 aim to harmonize economic growth with social and human development, whilst ensuring environmental protection and sustainable use of resources. Through these four pillars, the government of Qatar seeks to enhance standards of living by adopting sound macroeconomic management and diversification. In particular, improving education, science and technology, will form the basis of attaining equilibrium between an oil-and knowledge-based economy.

In the competitiveness ranking of 2010, Qatar was also classified as the most competitive country in the Arab world (and 17 out of 139 globally). WEF (2010) stated that Qatar was the fastest growing economy in the world, recording 18.5% growth rate in 2010. The strong performance of Qatar was reinforced by solid foundation, with a high quality institutional framework (ranked 10th globally), stable macroeconomic environment (8th), and efficient goods market (12th). The solid institutional framework rests on low levels of corruption and undue impact on government decisions, high government efficiency and first-class security.

United Arab Emirates (UAE) is the 2nd best Arab performer in the WEF competitiveness report of 2015, putting it at 17 globally. Compared with 2009 (ranked 25th), the UAE has risen in the competitiveness ranking. This is a result of the massive efforts exerted by the government in the last 10 years in order to improve the investment climate in UAE. The ranking achieved in 2015 is due to the excellent macroeconomic environment, represented by highly developed infrastructure (ranked 4th in the world) and strong institutions (ranked 9th). In addition, the UAE economy is the most diversified economy amongst the GCC countries.

Also, UAE was ranked 5th in competition, thanks to its openness to trade and investment. As the investment climate is supported by easy and attractive regulations for investors (ranked 3rd), a relatively efficient labour market (ranked 11th) and the presence of sophisticated labour market (15th). The main weaknesses in the UAE are tertiary education and innovation. Therefore, they need to improve the capacity for innovation, especially scientific research. In addition the UAE needs to counter the

drop in public revenues resulting from the fall in oil prices by adopting suitable fiscal consolidation.

The ranking of 25 in the world in WEF (2010), was based on high investment in infrastructure, high level of new technology (ranked 14th) and efficient goods markets (ranked 6th). A stable macroeconomic environment, strong public trust in politicians and efficient government, played an important role in improving the competitiveness of the country. On the other hand, private institutions and accountability standards were ranked lower. At the time, the ranking was also undermined by problems faced by Dubai in failing to pay back its external debt.

WEF (2013) showed that macroeconomic stability and diversification were the main factors in improving the ranking of the UAE. The non-hydrocarbon economy had grown significantly in 2013, supported by strong performance in trade, tourism, manufactured goods and logistics. Moreover, the country witnessed a high level of investments in order to improve the sectors of healthcare, renewable energy, financial services, materials science and information technology.

The ranking of **Morocco** improved in 2015 to reach 72 (out of 140 countries) compared with 75 (out of 139 countries) in 2009. This improvement followed improvements in the ranking of institutions, infrastructure, macroeconomic environment and goods market efficiency. The institutions ranking for Morocco improved in 2015 to reach 47, owing to better transparency in policy making, less

diversion of public funds and stronger property rights. Improved infrastructure was seen in particular in the quality of port infrastructure, mobile telephone subscriptions and available airline seats. The macroeconomic environment improved as result of a good ranking in gross national savings (30th) and inflation (48th).

The improvement in goods market efficiency was based on better performance in agriculture policy (ranked 13th) and the business impact of rules on FDI (ranked 22th). We believe that the easing of business rules attracted more FDI in the last 10 years, reflected in the increase in Moroccan exports of manufactured goods, in particular cars and electronics.

However, WEF (2015) shows that Morocco faces challenges in improving the competitiveness ranking. These include education and training, health and primary education, labour market efficiency, business sophistication and innovation. In particular the WEF's report of 2013 confirmed that the challenges facing Morocco exist in two essential areas for competitiveness: education (ranked 101st) and efficiency in labour markets (122nd). The reports stated that all components of the education system need enhancement. Morocco registered very low levels of access to education, curricula and teaching methods. For the labour market, Morocco needs to improve labour market structure and sufficient flexibility in order to get the full benefit from its talent. Also WEF (2013) highlighted that Morocco, in the last decade, engaged in many free trade agreements with key trade partners like the European Union, the USA and many countries in the MENA area. The stable

macroeconomic environment enabled Morocco to become the second-largest for foreign investments in Africa since 2010.

Previous to this, WEF (2010) stated that the competitiveness ranking of Morocco in 2010 (75th) out of 139 countries, benefited from earlier efforts to stabilize the macroeconomic environment. Many measures were adopted to decrease the administrative procedures required to create companies. Also the report confirmed that the main challenge was high unemployment which stood at 9.4 % in 2008.

Regarding Arab countries that achieved a moderate performance in global competitiveness rankings, **Kuwait** in 2015 stood at 34 (out of 140 countries) in the global competitiveness ranking, compared to 35 (out of 139 countries) in 2010. The main positive factor behind this was its macroeconomic environment. Kuwait was ranked first in the world in government budget balance, second in the world for gross national savings and fourth in general government debt. On the other hand it was, respectively, 27th and 46th for credit rating and inflation. With regard to other pillars of competitiveness, Kuwait has a low ranking for most. Kuwait is ranked 56th for institutions, 56th for technology readiness, 58th for market size, 54th for infrastructure and 63rd for health and business sophistication. In addition, it was ranked 79th for primary education, 85th for higher education and training, 98th for goods market efficiency, 109th for innovation and 117th for labour market efficiency.

WEF (2010) argued that in spite of Kuwait's dependence on oil revenues, which helped to deliver a stable macroeconomic environment with a high level of saving and solid public finances, oil prices presented substantial risks given the possibility of their declining in the future. Also, Kuwait faced problems resulted from non-performing loans in the banking sector, which affected the ranking of the financial sector in 2010.

WEF (2013) stated that political tensions between the government and parliament affected negatively the competitiveness enhancements in Kuwait. These tensions impacted on the issuance of economic laws and regulations. The report also confirmed that the competitiveness of Kuwait faced challenges mainly in innovation, labour market and goods market.

Jordan was ranked 64th (out of 140 countries) in 2015, compared with 65th (out of 139 countries) in 2010. This marginal improvement was attributed to the performance of institutions (ranked 34 globally), goods market efficiency (ranked 39th) and innovation and sophistication factors (ranked 40th). On the other hand, competitiveness pillars with lower rankings included higher education and training (50th), infrastructure (70th), financial market development (71st), technological readiness (76th), market size (76th), labour market efficiency (93rd) and macroeconomic environment (130th).

The ranking of 65th in WEF (2010) resulted from weaknesses mainly in institutions, good market efficiency and education. These challenges offset the improvement achieved in macroeconomic environment in 2010 compared with the previous year. According to WEF (2013), the Jordanian economy witnessed sustainable growth over the period 2000-2009. The average growth rate of GDP was 6% and exports 15%. Jordan is more vulnerable to external shocks, owing to close ties with neighbouring countries and a large growing deficit. It is also dependent on oil imports and remittances.

The Arab countries which saw their competitiveness ranking fall in WEF (2015) were Saudi Arabia, Oman, Bahrain, Algeria, Tunisia, Lebanon and Egypt. **Saudi Arabia** fell to 25th (out of 140 countries), from 21st (out of 139 countries) in 2010. WEF (2015) argued that, in spite of low oil prices, the macroeconomic environment was a very strong pillar in Saudi Arabia. Lower oil prices, however, required more effort in economic diversification and encouraging the growth of the private sector, in order to create more jobs to reduce unemployment. Effort was also identified to reduce administrative barriers (ranked 104th) and improve the financial sector and corporate governance standards (41th and 55th respectively).

In recent years, Saudi Arabia achieved number of improvements in competitiveness. These were based on a strong and solid institutional framework, efficient markets and sophisticated business. Also, the government increased expenditure to improve the infrastructure. That said, the budget fell from surplus to deficit, which impacted

the macroeconomic environment indicators. In addition, the country faced challenges such as health, education and efficient labour market (WEF, 2010).

WEF (2013) recognised the doption of initiatives aiming at boosting spending to enhance infrastructure, social programmes, healthcare and education. These initiatives should create more investment opportunities and improve the investment climate. Improving infrastructure included projects for enhancing the transport network, passenger and freight rail networks. Social programmes included investments in affordable housing for Saudi people, and support for unemployed Saudis by providing aid and technical guidance.

Oman ranked only 62nd (out of 140 countries) in 2015, down from 34th (out of 139 countries) in 2009. It received low scores for financial market development (ranked 45th), goods market efficiency (ranked 52nd), technological readiness (ranked 62nd), market size (ranked 64th), health and primary education (ranked 66th), business sophistication (ranked 71st), higher education and training (ranked 88th), labour market efficiency (ranked 89th) and innovation (ranked 103rd).

Oman scored better in macroeconomic environment (ranked 19th), institutions (ranked 31st), infrastructure (ranked 36th), but especially well in inflation annual change (ranked 1st) and general government debt (ranked 2nd). The strength in institutions are low wastefulness of government spending (ranked 6th) and business costs of crime and violence (ranked 6th). Within infrastructure, mobile telephone

subscriptions ranked 16th, quality of roads ranked 18th and quality of electricity supply ranked 29th.

Previously, WEF (2010) ranked Oman as (34th out of 139 countries) on the basis of economic reform in previous years. These economic reforms, aimed at diversifying Oman's economy, began in 1990 with a vision for 2020. The WEF report of 2010 stated that the main strengths in the competitiveness performance of Oman were macroeconomic environment and institutional framework, offset by weaknesses in education and health, in spite of efforts exerted by the government in this respect.

WEF(2013) identified key continuing weaknesses, notably in education and labour market efficiency. It noted, however, efforts promoting the transfer to a knowledge and service based economy. The country concentrated on constructing a high quality infrastructure and transport services, a skilled labour force and more advanced education. These efforts aiming to support the growth of the economy and improve the business environment.

The global competitiveness ranking of **Bahrain** declined slightly in 2015, to 39th (out of 140 countries) from 37th (out of 139 countries) in 2010. This deterioration was attributed to a decline in the ranking of innovation (56th), macroeconomic environment (82nd) and market size (92nd). In macroeconomic environment, in spite of Bahrain being ranked first globally on inflation, other components received much lower scores. Bahrain was ranked 57th in credit rating, 70th in general government

debt, 81st in gross national savings and 119th in government budget balance. In addition to the poor macroeconomic performance, Bahrain scored poorly in foreign market size (71st), GDP (PPP $ billions) (88th), domestic market size index (94th). The innovation pillar also deteriorated, with falls in capacity to innovate (70th), quality of scientific research institutions (87th), company spending on R&D (87th) and university-industry collaboration in R&D (90th).

Less problematic were the pillars of institutions, infrastructure and health and primary education. Institutions ranked 26th globally, scoring well for burden of government regulation, wastefulness of government spending, strength of auditing and reporting standards and protection of minority shareholders' interests. Within the pillar of infrastructure (ranked 29th), mobile telephone subscriptions, quality of roads, ports, electricity supply and overall infrastructure scored well. Finally, health and primary education pillar ranked 35th, including infant mortality and deaths (35th), and quality of primary education (38th).

WEF (2010) placed Bahrain 37th globally. The competitiveness performance was seen to be stable, in spite of the challenges in the pillars of health and education, financial markets and good markets. WEF (2011) confirmed the results of WEF (2010), adding that Bahrain had a strong institutional framework which supported property rights, corruption and efficient government.

WEF (2013) highlighted ten years of extensive reforms in economic and social policies. The efforts included the corporatization and privatization of many governmental businesses, enhancement of transparency, removing barriers to foreign investment, a free trade agreement with the USA, reforms to the labour market, liberalization of the telecommunication sector and enhanced public education. These reforms constituted a cornerstone to build the Bahrain economic vision 2030, which launched in 2008. The main objective is to improve living standards for all people in Bahrain.

WEF (2015) rated **Algeria** as 87th (out of 140 countries), just below the rating in 2010. This deterioration was attributed to the lower performance of the pillars of health and primary education (81st), institution (99th), higher education and training (99th), infrastructure (105th), innovation (119th), technology readiness (126th), business sophistication (128th), goods and labour market efficiency (135th) and financial market development (135th).

These were partially offset by better performance in the pillars of market size and macroeconomic environment (37th an 38th, respectively). Within market size, the main improvements were in domestic and foreign market size, and GDP (PPP). In macroeconomics, the main improvements included general government debt, gross national saving and inflation rate.

Perhaps most negatively prior to this, macroeconomic environment saw Algeria fall from 2nd in 2009 to 57th in 2010. This deterioration was attributed to high budget deficit, low level of national saving, high inflation and increasing public debt. Algeria was also advised to concentrate on enhancing the efficiency of goods, labour and financial markets. The country could benefit from focusing on opening trade and remove barriers to foreign direct investments, which would help to improve the skills of the labour force.

WEF (2013) reflected on other policies, for example efforts that has reduced youth unemployment, from 50% to 20%. The government was also working to increase the economic diversification of the country, in addition to increasing investment in housing, infrastructure, agriculture, education, information and communications technology (ICT), and small and medium enterprises (SME).

The global competitiveness ranking of **Tunisia** fall sharply in 2015, to reach 92nd (out of 140 countries) compared with 32nd (out of 139) in 2010. We attribute this deterioration to the political and security unrest in recent years, which affected all economic sectors but especially tourism, the main source of foreign currency. Therefore the macroeconomic indicator was affected massively, falling to 97th globally in 2015. Indeed, the performance of all components of macroeconomic indicators scored poorly, notably 74th for country credit rating and 120th for gross national savings.

Beyond this, the ranking of other pillars included 58th for health and primary education, 69th for market size, 76th for higher education and training, 79th for institutions, 80th infrastructure, 80th for technological readiness. The pillars of goods and labour market efficiency, financial market development, business sophistication, and innovation, registered rankings of between 104th (for business sophistication) and 133rd (for labour market efficiency).

The significance of the Arab Spring can be seen by noting that WEF (2010) placed Tunisia 32nd globally, the highest position of all North African countries that year. Prior to the disruption of the Arab Spring, the government worked hard to improve the macroeconomic environment and investment climates. As a result the performance of sub-components of macroeconomic environment improved significantly during 2010. In particular this was reflected in lower inflation, increased savings and a stable budget deficit. In addition, there were strong scores for efficient government institutions, political stability and good quality of education, although some bottlenecks to competitiveness needed to be addressed through reforming the labour market and enhancing the stability of the financial system. All of these improvements were negated by the upheaval of the Arab Spring, with WEF (2011) highlighting uncertainty in the macroeconomic environment and investment climate.

The global competitiveness ranking for **Lebanon** in 2015 was 101st (out of 140 countries), down from 92nd (out of 139 countries) in 2009. The country registered low scores in all indicators except for health and primary education (30th). The pillars

of labour market efficiency, infrastructure, institutions and macroeconomic environment were ranked 109th, 116th, 128th, 139th respectively.

The ranking attained in 2010 was underpinned by a strong ranking (16th) for the quality of education, efficient good market and developed financial market. The weaknesses included infrastructure, macroeconomic environment and institutions (public and private) (WEF, 2010). These weaknesses were also reported in WEF (2011).

WEF (2013) identified the wider regional political unrest and violence as being the main challenges facing the Lebanese economy. In addition the economy lacked policies to improve the investment climate and attract more inflows of foreign direct investment.

In spite of reforms in **Egypt**, the country was ranked 116th (out of 140 countries) in 2015, compared with 81st (out of 139 countries) in 2010. These reforms had included energy subsidies reduction, tax reforms, and enhancing business environment. The macroeconomic pillar was ranked 137th globally. All the macroeconomic components were raked low, from 105th for country credit rating, to 139th for government budget. The pillar of institutions was 87th, supported by an improved performance for efficient judiciary in settling business disputes and enhancing protection of property rights. The other pillars scored very poorly except for market size, which ranked 24th. WEF (2015) recommended reforms to create a more

attractive investment climate for private sector and foreign direct investments. In addition, these reforms would help to create more jobs and satisfy the social needs of the people.

WEF (2010), prior to the revolution, placed Egypt 26th in terms of market size. The pillars of private institutions and transport infrastructure registered a moderate performance during 2010. The country faced a number of weaknesses, such as labour market rigidity, and increasing youth unemployment and female labour-market participation. The elements of the macroeconomic environment pillar were challenging, especially government debt, budget deficit and inflation rate.

After two years of revolution and political upheaval, WEF (2013) reported that the country faced many challenges include the quality of institutions, corruption, the effectiveness of the legal framework and macroeconomic environment. Furthermore, there were structural challenges, which affected the business environment and growth, such as higher education and training, the efficiency of goods and labour markets, the developments in financial markets, business sophistication and innovation.

Chapter 5

Appendix – A

Descriptive Statistics for Model Variables

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	56025.9	1893.2	44.4	5.4	38.1	72.1	22769.3	119.2
Median	29133.0	531.9	46.5	3.4	36.9	69.0	11485.8	3.7
Maximum	476305.0	38151.0	90.0	132.8	93.0	159.2	99529.0	1621.4
Minimum	1081.0	-985.3	10.0	-9.8	0.0	12.8	2303.8	0.3
Std. Dev.	72859.1	4359.2	22.3	10.7	25.2	30.1	23486.4	357.3

Source: Author's calculation using EViews (7) software package.

* Some variables have outliers, low values (zero, one, or …….) and high values (billions), in addition, some variables like FDI and inflation have negative values.

Appendix – B

Descriptive Statistics for individual countries' variables

1- Algeria

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	86254.6	1098.8	48.3	6.1	9.8	55.4	11273.9	68.4
Median	62536.0	973.5	50.0	4.1	11.3	55.4	11594.2	72.4
Maximum	170989.0	2760.9	55.0	29.8	16.2	69.5	12159.8	79.7
Minimum	41764.0	0.0	32.0	0.3	3.9	40.7	9879.0	47.7
Std. Dev.	44822.2	881.2	5.0	7.5	4.2	8.4	741.0	9.3

2-Bahrain

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	11856.9	809.8	67.3	1.3	54.5	128.3	33541.9	0.4
Median	9119.5	442.2	70.0	2.0	50.9	130.5	34163.6	0.4
Maximum	22945.0	2914.9	77.0	3.5	79.6	147.1	35450.8	0.4
Minimum	5849.0	-275.0	50.0	-1.3	41.6	93.1	29500.2	0.4
Std. Dev.	6155.7	874.4	8.5	1.7	12.1	13.9	1839.8	0.0

Source: Author's calculation using EViews (7) software package.

* Some variables have outliers, low values (zero, one, or …….) and high values (billions), in addition, some variables like FDI and inflation have negative values.

3-Egypt

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	107952.0	3664.7	34.1	7.6	45.9	29.6	4887.3	4.7
Median	90198.5	1155.5	30.5	6.1	48.0	25.0	4914.7	5.0
Maximum	218912.0	11578.1	50.0	18.3	54.9	45.8	5821.3	6.2
Minimum	60159.0	237.4	28.0	2.3	32.7	18.6	4034.8	3.4
Std. Dev.	45014.6	3963.6	7.4	4.9	8.1	9.3	555.2	1.1

4-Jordan

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	12935.5	1179.9	43.8	3.7	75.0	89.2	8729.8	0.7
Median	9891.0	730.2	47.0	3.1	71.9	81.9	8785.1	0.7
Maximum	27574.0	3544.0	53.0	14.9	88.3	117.6	10233.5	0.7
Minimum	6727.0	13.3	30.0	-0.7	68.9	68.1	7264.9	0.7
Std. Dev.	6830.9	1163.4	8.0	3.6	7.0	15.4	1174.9	0.0

5-KSA

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	258598.6	9699.4	61.3	1.9	32.4	65.3	38567.0	3.8
Median	201562.0	678.3	62.5	0.7	29.3	59.0	39144.9	3.8
Maximum	476305.0	38151.0	70.0	9.9	52.5	90.0	40775.3	3.8
Minimum	142458.0	57.0	50.0	-1.3	20.9	47.2	34516.7	3.7
Std. Dev.	113268.9	13507.3	9.2	3.1	9.3	13.8	1720.0	0.0

Source: Author's calculation using EViews (7) software package.

* Some variables have outliers, low values (zero, one, or …….) and high values (billions), in addition, some variables like FDI and inflation have negative values.

6-Kuwait

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	65171.1	123.0	61.8	3.0	58.7	70.5	62429.9	0.3
Median	43007.5	41.5	70.0	2.9	61.9	71.2	61537.2	0.3
Maximum	148783.0	1113.7	70.0	10.6	82.4	75.7	75269.1	0.3
Minimum	25946.0	-175.8	43.0	0.1	30.0	62.3	52462.5	0.3
Std. Dev.	41437.1	289.0	11.0	2.5	14.2	4.2	7882.7	0.0

7-Lebanon

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	21577.4	2308.6	19.4	3.6	74.3	53.5	16923.5	1521.2
Median	19617.5	2141.7	15.0	3.5	73.9	54.5	16748.5	1507.5
Maximum	39155.0	4954.9	36.0	10.8	87.9	70.5	19996.0	1621.4
Minimum	11719.0	35.0	10.0	0.0	54.9	39.6	15504.9	1507.5
Std. Dev.	7501.9	1588.1	11.0	3.3	9.0	9.9	1274.6	31.8

8-Libya

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	42703.2	1155.5	15.9	1.3	16.7	66.7	17935.7	0.9
Median	32043.0	144.0	10.0	2.6	15.9	72.5	15802.2	1.3
Maximum	93168.0	4689.0	30.0	10.4	32.5	90.8	32839.2	1.3
Minimum	19843.0	-148.0	10.0	-9.8	6.0	39.7	8818.7	0.4
Std. Dev.	21959.7	1727.5	7.9	5.4	8.7	16.0	6613.5	0.4

Source: Author's calculation using EViews (7) software package.

* Some variables have outliers, low values (zero, one, or …….) and high values (billions), in addition, some variables like FDI and inflation have negative values.

9-Mauritania

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	1906.9	131.8	30.3	6.1	9.7	81.6	2698.8	229.9
Median	1429.0	53.8	30.0	5.7	0.0	74.0	2656.5	257.1
Maximum	3636.0	814.1	32.0	12.1	30.4	111.9	3121.2	275.9
Minimum	1081.0	-0.4	26.0	2.2	0.0	61.5	2428.9	129.8
Std. Dev.	918.2	216.9	1.7	2.6	13.1	18.8	234.2	50.6

10-Morocco

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	54785.6	1449.8	40.8	2.1	48.5	51.8	5025.1	9.2
Median	45119.5	1333.8	38.5	1.7	47.0	50.4	4903.3	8.9
Maximum	91375.0	2807.7	52.0	6.1	68.5	70.4	6371.2	11.3
Minimum	32986.0	322.0	30.0	0.6	31.2	43.5	4180.4	7.8
Std. Dev.	21499.3	924.0	8.1	1.5	10.6	7.2	731.1	1.0

11-Oman

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	28814.8	828.9	66.6	1.6	37.0	86.7	39384.2	0.4
Median	20795.5	106.3	70.0	0.5	36.3	86.4	39843.3	0.4
Maximum	63199.0	3431.5	70.0	12.1	48.2	100.5	43705.0	0.4
Minimum	13803.0	5.2	47.0	-2.1	25.6	75.7	32711.8	0.4
Std. Dev.	16385.0	1109.6	7.4	3.5	6.8	7.4	2831.9	0.0

Source: Author's calculation using EViews (7) software package.

* Some variables have outliers, low values (zero, one, or …….) and high values (billions), in addition, some variables like FDI and inflation have negative values.

12-Qatar

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	42682.5	2027.8	76.3	4.5	36.5	79.4	51408.0	3.6
Median	21449.0	624.4	73.0	3.0	34.9	79.7	43803.5	3.6
Maximum	128593.0	8124.7	90.0	15.1	57.9	86.6	99529.0	3.6
Minimum	8138.0	93.6	65.0	-4.9	26.8	64.6	19945.3	3.6
Std. Dev.	40359.1	2429.3	8.4	5.6	8.5	5.1	25124.0	0.0

13-Sudan

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	26353.4	1283.7	29.9	23.8	6.5	29.0	3385.7	2.1
Median	16378.0	1031.2	30.0	9.9	5.3	29.5	3234.8	2.3
Maximum	62046.0	3534.1	35.0	132.8	13.7	42.3	4576.2	2.6
Minimum	9018.0	0.4	25.0	4.9	1.6	12.8	2410.3	0.6
Std. Dev.	18835.8	1131.9	2.9	33.6	4.6	8.0	752.7	0.6

14-Syria

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	28025.1	520.3	17.6	4.2	12.4	56.2	5143.9	11.2
Median	21989.5	266.5	10.0	4.2	10.5	53.0	5458.0	11.2
Maximum	59103.0	1467.0	34.0	15.7	22.5	72.6	7224.2	11.2
Minimum	11397.0	70.0	10.0	-3.8	7.7	43.7	2303.8	11.2
Std. Dev.	15496.8	542.9	10.7	5.1	4.4	9.9	1652.5	0.0

Source: Author's calculation using EViews (7) software package.

* Some variables have outliers, low values (zero, one, or …….) and high values (billions), in addition, some variables like FDI and inflation have negative values.

15-Tunisia

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	27183.4	1069.0	48.9	3.5	65.7	79.9	8114.2	1.2
Median	23019.5	723.7	50.0	3.5	65.7	77.5	7997.2	1.3
Maximum	44291.0	3307.9	53.0	6.2	68.8	107.6	10204.5	1.4
Minimum	18031.0	351.1	42.0	2.0	62.2	67.5	5792.0	0.9
Std. Dev.	9292.1	889.7	2.8	1.1	2.0	10.5	1390.9	0.2

16-UAE

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	121608.3	4675.3	77.1	4.4	58.7	138.3	74744.0	3.7
Median	81932.0	2566.1	90.0	3.0	54.1	136.9	81126.7	3.7
Maximum	297648.0	14186.5	90.0	12.3	93.0	159.2	88210.3	3.7
Minimum	42807.0	-985.3	52.0	0.9	44.8	120.2	45319.4	3.7
Std. Dev.	84410.7	5630.1	15.5	3.5	13.4	12.9	13559.3	0.0

17-Yemen

	GDP	FDI	CORR	INF	DCPS	OPENESS	PROD	NEXCH
Mean *	14030.8	158.8	15.7	13.8	6.1	64.5	2884.8	165.0
Median	10455.0	6.0	10.0	11.0	6.6	65.4	2879.2	179.5
Maximum	29298.0	1554.6	27.0	55.1	8.2	83.3	3305.9	219.6
Minimum	4236.0	-329.0	10.0	2.2	3.0	44.8	2633.1	40.8
Std. Dev.	8274.9	553.2	7.6	12.8	1.5	9.3	193.2	46.2

Source: Author's calculation using EViews (7) software package.

* Some variables have outliers, low values (zero, one, or …….) and high values (billions), in addition, some variables like FDI and inflation have negative values.

Appendix – C

EViews printout

Panel Estimation results: GMM (Fixed effects)

Specification (1)

Dependent Variable: LGDP
Method: Panel Generalized Method of Moments
Transformation: First Differences
Date: 04/23/15 Time: 14:51
Sample (adjusted): 1998 2009
Periods included: 12
Cross-sections included: 17
Total panel (balanced) observations: 204
Difference specification instrument weighting matrix
White period standard errors & covariance (no d.f. correction)
Instrument specification: @DYN(LGDP,-2) LFDI LOPENESS LCORR INF DCPS FDI(-1) INF(-1)
Constant added to instrument list

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGDP(-1)	0.887129	0.043258	20.50774	0.0000
LFDI	0.022188	0.007306	3.036956	0.0027
LOPENESS	0.424830	0.081716	5.198892	0.0000
LCORR	-0.038298	0.039143	-0.978414	0.3290
INF	-0.000693	0.002720	-0.254893	0.7991
DCPS	-0.013658	0.002699	-5.059578	0.0000
INF(-1)	0.002677	0.000927	2.886318	0.0043
DCPS(-1)	0.014828	0.002175	6.818643	0.0000

Effects Specification

Cross-section fixed (first differences)

Mean dependent var	0.093584	S.D. dependent var	0.130333
S.E. of regression	0.128957	Sum squared resid	3.542187
J-statistic	182.8102	Instrument rank	97
Prob(J-statistic)	0.000000		

Source: Author's calculation using EViews (7) software package.

Specification (2)

Dependent Variable: LGDP
Method: Panel Generalized Method of Moments
Transformation: First Differences
Date: 04/23/15 Time: 23:22
Sample: 1998 2009
Periods included: 12
Cross-sections included: 17
Total panel (balanced) observations: 204
Difference specification instrument weighting matrix
White period standard errors & covariance (no d.f. correction)
Instrument specification: @DYN(LGDP,-2) LFDI LOPENESS LCORR INF DCPS FDI(-1) INF(-1)
Constant added to instrument list

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGDP(-1)	0.810612	0.039058	20.75389	0.0000
LFDI	0.025561	0.008721	2.931020	0.0037
LOPENESS	0.411452	0.073524	5.596163	0.0000
LCORR(-1)	0.036038	0.029427	1.224638	0.2221
INF(-1)	0.001914	0.000664	2.880700	0.0044
DCPS(-1)	0.005754	0.001780	3.232725	0.0014

Effects Specification

Cross-section fixed (first differences)

Mean dependent var	0.093584	S.D. dependent var	0.130333
S.E. of regression	0.147053	Sum squared resid	4.649270
J-statistic	197.2952	Instrument rank	97
Prob(J-statistic)	0.000000		

Source: Author's calculation using EViews (7) software package.

Specification (3)

Dependent Variable: LGDP
Method: Panel Generalized Method of Moments
Transformation: First Differences
Date: 04/24/15 Time: 23:33
Sample: 1998 2009
Periods included: 12
Cross-sections included: 17
Total panel (balanced) observations: 204
Difference specification instrument weighting matrix
White period standard errors & covariance (no d.f. correction)
Instrument specification: @DYN(LGDP,-2) LFDI LOPENESS LCORR INF DCPS FDI(-1) INF(-1)
Constant added to instrument list

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGDP(-1)	0.816425	0.037689	21.66197	0.0000
LFDI	0.025713	0.008746	2.939802	0.0036
LOPENESS	0.417514	0.071354	5.851279	0.0000
INF(-1)	0.001995	0.000626	3.186871	0.0017
DCPS(-1)	0.005326	0.001778	2.995339	0.0031

Effects Specification

Cross-section fixed (first differences)

Mean dependent var	0.093584	S.D. dependent var	0.130333
S.E. of regression	0.147579	Sum squared resid	4.704372
J-statistic	196.8391	Instrument rank	97
Prob(J-statistic)	0.000000		

Source: Author's calculation using EViews (7) software package.

Panel Estimation results: GMM (Fixed effects)

After using the variables, labour productivity and nominal exchange rate.

Specification (1)

Dependent Variable: LGDP
Method: Panel Generalized Method of Moments
Transformation: First Differences
Date: 10/13/17 Time: 16:33
Sample: 1998 2009
Periods included: 12
Cross-sections included: 17
Total panel (balanced) observations: 204
Difference specification instrument weighting matrix
White period standard errors & covariance (no d.f. correction)
Instrument specification: @DYN(LGDP,-2) LFDI LOPENESS LCORR INF DCPS FDI(-1) INF(-1) LPROD LNEXCH

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGDP(-1)	0.823560	0.048790	16.879670	0.0000
LFDI	0.017332	0.007565	2.291008	0.0230
LOPENESS	0.477830	0.085290	5.602402	0.0000
LCORR	-0.039549	0.046716	-0.846583	0.3982
INF	-0.001319	0.002362	-0.558638	0.5770
DCPS	-0.011399	0.002225	-5.122172	0.0000
INF(-1)	0.003026	0.000585	5.172275	0.0000
DCPS(-1)	0.015777	0.002378	6.635117	0.0000
LPROD	0.000010	0.000003	3.571722	0.0004
LNEXCH	-0.000867	0.001254	-0.691302	0.4901

Effects Specification

Cross-section fixed (first differences)

Mean dependent var	0.093584	S.D. dependent var	0.130333
S.E. of regression	0.119032	Sum squared resid	2.989590
J-statistic	182.6798	Instrument rank	100
Prob(J-statistic)	0.000000		

Specification (2)

Dependent Variable: LGDP
Method: Panel Generalized Method of Moments
Transformation: First Differences
Date: 10/12/17 Time: 14:05
Sample: 1998 2009
Periods included: 12
Cross-sections included: 17
Total panel (balanced) observations: 204
Difference specification instrument weighting matrix
White period standard errors & covariance (no d.f. correction)
Instrument specification: @DYN(LGDP,-2) LFDI LOPENESS LCORR INF DCPS FDI(-1) INF(-1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGDP(-1)	0.716940	0.056208	12.755090	0.0000
LFDI	0.017316	0.009121	1.898464	0.0590
LOPENESS	0.489455	0.097019	5.044914	0.0000
LCORR(-1)	0.018237	0.047219	0.386209	0.6997
INF(-1)	0.002192	0.000812	2.700596	0.0075
DCPS(-1)	0.010467	0.002645	3.957310	0.0001
LNEXCH	-0.001617	0.003329	-0.485632	0.6277
LPROD	0.000018	0.000007	2.675327	0.0080

Effects Specification

Cross-section fixed (first differences)

Mean dependent var	0.093584	S.D. dependent var	0.130333
S.E. of regression	0.127634	Sum squared resid	3.469867
J-statistic	193.7997	Instrument rank	98
Prob(J-statistic)	0.000000		

Specification (3)

Dependent Variable: LGDP
Method: Panel Generalized Method of Moments
Transformation: First Differences
Date: 10/12/17 Time: 16:02
Sample: 1998 2009
Periods included: 12
Cross-sections included: 17
Total panel (balanced) observations: 204
Difference specification instrument weighting matrix
White period standard errors & covariance (no d.f. correction)
Instrument specification: @DYN(LGDP,-2) LFDI LOPENESS LCORR INF DCPS FDI(-1) INF(-1) LNEXCH(-1) LPROD

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGDP(-1)	0.704954	0.056716	12.429460	0.0000
LFDI	0.014759	0.006803	2.169543	0.0311
LOPENESS	0.376138	0.069838	5.385881	0.0000
INF(-1)	0.003589	0.001059	3.390150	0.0008
DCPS(-1)	0.007454	0.002570	2.900474	0.0041
LNEXCH(-1)	0.144272	0.068094	2.118725	0.0353
LPROD	0.494070	0.095521	5.172394	0.0000

Effects Specification

Cross-section fixed (first differences)

135	0.093584	S.D. dependent var	0.130333
S.E. of regression	0.11807	Sum squared resid	2.983286
J-statistic	220.2888	Instrument rank	100
Prob(J-statistic)	0.000000		