AMERICAN UNIVERSITY OF BEIRUT

THE SPILLOVER EFFECTS OF THE SYRIAN CRISIS ON LEBANON'S ECONOMY: A CROSS BORDER ANALYSIS BETWEEN JORDAN AND TURKEY

by
NADINE RAMZI ABDEL FATTAH

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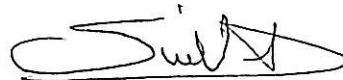at the American University of Beirut

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AN ABSTRACT OF THE THESIS OF

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Title: The Spillover Effects of the Syrian Crisis on Lebanon's Economy: A Cross Border Analysis between Jordan and Turkey.

The ongoing conflict in Syria has imposed several political, social, and economic challenges to the Middle East region. As a result of the Syrian crisis, the large-scale and rapid influx of refugees to neighboring countries, including Lebanon, Jordan, and Turkey has caused extensive pressure on host economies with varying degrees of negative spillover effects. The Syrian crisis has contributed to increasing Lebanon's vulnerability as a country, through restraining its overall macroeconomic performance. Spillover effects include but are not limited to, successive losses to the pillar economic sectors such as tourism and real estate, losses in investment opportunities, rising unemployment and inflation rates, limited economic transactions, and disrupted trade routes which impacted exports. Moreover, the regional turmoil caused by the Syrian crisis has exacerbated Jordan's already low economic growth and fragile fiscal stance. Furthermore, the macroeconomic analysis of Turkey's economy shows that Turkey's slowdown in economic growth cannot be fully attributed to the spillover effects of the Syrian crisis. Turkey's economy has been affected by several shocks at once, inflicting slowdown in economic growth. Empirical evidence in this thesis shows that Lebanon's economy suffered the most from the negative spillovers of the Syrian crisis in comparison to all other political external and internal shocks that hit Lebanonbetween the years 1980 to 2013. In addition, Lebanon's economy witnessed the largest slowdown in economic growth vis-à-vis Jordan and Turkey as a result of the Syrian crisis. Chapter I of this thesis highlights an over view of the thesis topic. Chapter II presents a literature review on the regional political instability and its relationship to economic growth. The thesis then presents thoroughly, in chapter III, the context of the crisis and its impact on Lebanon's economy by analyzing the economic repercussions of Lebanon's key sectors and macroeconomic fundamentals. It also includes an assessment of the macroeconomic impact of the crisis on Jordan and Turkey. Chapter IV provides an empirical model using OLS multi-variable regression and incorporation of dummy variables to prove quantitatively the impact of the crisis on the three countries' economic growth in order to compare the burden levied on them. Chapter IV also provides an interpretation of the empirical results with policy recommendations. Finally, chapter V concludes the thesis with a prospect on the current situation.

CONTENTS

ILLUSTRATIONS

TABLES

To My

Beloved Family

CHAPTER I

INTRODUCTION

The ongoing conflict in Syria has imposed several political, social, and economic challenges to the Middle East region. As a result of the Syrian crisis, the large-scale and rapid influx of refugees to neighboring countries, including Lebanon, Jordan, and Turkey has caused extensive pressure on host economies with varying degrees of negative spillover effects. Lebanon, a country that shares historical strong ties with Syria, has been burdened from the Syrian crisis through several spillover channels. Since the uprising of the crisis in March 2011, the Lebanese government declared a policy of dissociation, with an aim of keeping the country outside the conflict. However, Lebanon was dragged within the conflict as clashes across the Lebanese-Syrian borders were witnessed, and bombings and sectarian conflicts exacerbated across several Lebanese regions, including its capital, Beirut. In such a way, the Syrian crisis has imposed a heavy toll on Lebanon's economy through the insecurity and uncertainty spillover channels. As Lebanon has long been suffering from external as well as internal political shocks that threatened its security and stability, the Syrian crisis has contributed to increasing its vulnerability as a country, throughrestraining it overall macroeconomic performance. Spillover effects include but are not limited to, successive losses to the pillar economic sectors such as tourism and real estate, losses in investment opportunities, rising unemployment and inflation rates, limited economic transactions, and disrupted trade routes which impacted exports. Besides Lebanon, the overall regional instability and political tension arising from the escalated Syrian conflict have posed major threats to its neighboring countries,

specifically, Jordan and Turkey,as they also are faced with the risk of transmission of the Syrian civil war on its territories.Both countries have hosted large inflows of refugees adding pressure on government finances and straining its scarce resources. Turkey was one of the first countries to welcome Syrian refugees and established one of the best refugee camps in the world to provide them with food, shelter, and education services and ease the pressure on public and private services within its economy. However, Turkey's open political stand in supporting Syrian revolts against the Assad regimehas raised concerns over its relations with Syria and the broader region as the Turkish government faced regional criticism about its political position, which undermined its goal of achieving high economic growth within the emerging markets. Further, Turkey's current domestic political instability has affected confidence in its economy and challenged its potential growth prospects. Jordan was also generous in welcoming and hosting large inflows of Syrian refugees, which exerted additional pressure on its already difficult macroeconomic and fiscal conditions, resulting in a continued slowdown in economic growth.

The current manifestations of regional political instability and its underlying impacts on economic growth of neighboring countries go in line with the vast economic literature proving the relationship between the widespread phenomenon of political instability and its underlying repercussions on economic growth through addressing its negative effects onmacroeconomic fundamentals.

This thesis will attempt to theoretically and empirically assess the effects of regional political instability and economic performance in neighboring countries as it will tackle the spill-over effects of the Syrian crisis on Lebanon, given the two countries' geographical proximity. Its purpose is to argue and prove that Lebanon's overall macroeconomic performance has been negatively and significantly affected by

the Syrian crisis in comparison to other external and internal political shocks that prevailed in earlier years. It further aims to depict the effects of regional political instability on the economic performance of Jordan and Turkey and analyze the extent to which the Syrian crisis' spillovers have affected their macroeconomic performance in comparison to Lebanon. The study will provide evidence in-line with the literature developed over the years which shows that regional political instability has adverse economic effects on neighboring countries.

CHAPTER II

LITERATURE REVIEW

A. Theoretical and Empirical Background

Several studies have been conducted among many economists and political scientists to explain the relationship between political instability and economic growth. Political instability as explained by economists leads to sub-optimal short run macro-economic policies because it is likely to shorten policy makers' horizons. It may also create volatility by leading to a more frequent switch of policies, which negatively affects the overall macro-economic performance. The widespread phenomenon of political instability in several countries and its underlying repercussions on economic growth created a thorough literature addressing the negative effects of political instability on key macroeconomic variables such as Gross Domestic Product (GDP) growth, private investment, and inflation. Alesina, Ozler, Roubini, Swagel (1992) examined, in a working paper, the nature of the relationship between political instability and economic growth by defining political instability as the propensity of government collapse. "The primary result of their paper was that in countries and periods with high propensity of government collapses, growth is significantly lower than otherwise." (Alesina*et al*. 1992) The authors used the concept of uncertainty on productive economic decisions, such as investment, production, and labor supply as their theoretical argument to explain why political instability slows down economic growth. Investors, as well as risk-averse economic agents facing uncertainty about the policies of the new potential government, would exit the economy, seeking a more stable environment with less political uncertainty. Alesina*et al*.(1992) used a data sample of

113 countries for the period 1950-1982 to study the correlation between economic growth and political instability and associated a numerical value for each country by averaging the probabilities of a change in government for that country over the years.DeHaanandSierman (1996) used another theoretical argument by explaining that instability reduces the supply of two essential factors of production- capital and labor. Investors would face an increased risk of capital loss, which in turn, discourages investment and consequently slows down the economy. Both papers used GDP as the dependent economic variable and changes in government as the measure for political instability. DeHaanandSierman(1996) used a panel data including African countries and incorporated a dummy variable that takes the value 0 if the number of government changes exceeds seven and 1 otherwise. Brada, Kutan, and Yigit (2004) considered countries in Central Europe and the Balkans. Brada*et al*.(2004) studied the effects of transition and political instability on foreign direct investment (FDI) inflows in Central Europe and the Balkans. The authors concluded that the economic costs of political instability in this region have been quite high, especially in the Balkans. Jong-a- Pin (2009), also finds that higher degrees of political instability lead to lower economic growth. Regarding inflation, Aisen and Veiga (2006) use the logarithm of inflation as their dependent variable and showed that political instability leads to higher inflation. Besides studying the relationship between instability and inflation, the authors also considered the effects of instability on inflation volatility. They used the logarithm of the standard deviation of inflation to study volatility. Aisen*et al*.(1992) found a positive relationship between instability and inflation, especially in countries with high inflation and explained it in a similar way in comparison to GDP being the dependent variable in the sense that policy makers tend to make sub-optimal policies as a result of the uncertainty of their horizons. Barro (1991) measures political instability by the number

of assassinations and the occurrence of violent revolutions and military coups in a certain country. Barro (1991) concludes that such measures of political unrest significantly affect the average growth levels in cross section regressions on a large sample of countries. In addition, Kormendi and McGuire (1985) and Barro (1989) find that a measure of the range of political rights is positively correlated with growth. Alesina and Tabellini (1990), Cukierman, Edwards and Tabellini (1992) andOzler and Tabellini (1991) present several models in which a government engages in suboptimal policies in order to worsen the conditions to be inherited by its successor when it is still uncertain about its horizon in power. In regard to private investment, Alesina and Perotti (1996) show that socio-political instability generates uncertain political-economic environments, by raising risks and consequently reducing investment.Alesina and Perroti (1996) used three different variables as proxiesto political instability and found that it does cause a decrease in economic growth. One direct application of this result for economic growth through investment is in Alesina and Tabellini (1989), which examines the effect of political uncertainty on investment and capital flight. The mere possibility of a government breakdown leads to a new potential government prone to tax capital and productive activitiesdue to the heavy borrowing of the government because of short term unstable fiscal policies by political leaders, which in turn deters long run economic growth. Investors would tend to substitute away from productive domestic investments in favor of private consumption and capital flight, resulting in a reduction of domestic production.Devereux and Wen (1996) argued that unstable political situation discourages private investments which in turn affects the economy negatively. In a report done by Edward (1998), negative relation was found between political instability and productivity growth for a panel of 93 countries for the period of 1960-1990 even though the relation was relatively weak. Drazen (2000), in a similar

theoretical argument as Alesina*et al.* (1992), explained that political instability creates uncertainty about the future returns from the investments of firms and private agents whichconstrains society as a whole to accumulate physical capital. This shows the distortion in the functions of the market and proves the direct negative effect of political instability on productivity. Maloney (2002), in his study of Latin American countries associated lower economic growth due to lower human capital accumulation as a result of the rampant political instability. Campos and Karanasos (2007) used the power-autoregressive conditional heteroskedasticity(power-ARCH) econometric framework with yearly data for Argentina for the period 1896-2000 and concluded that both informal political stability (assassinations and strikes) and formal political stability (constitutional and legislative changes) have direct negative effect on economic performance. However, their study revealed that the effect of formal instability was stronger in the long run while the effect of informal instability was stronger in the short run.Grossman (1991) presented a different argument but leading to a similar relationship between political instability and growth by his analysis of revolutions. Grossman (1991) mentions that in countries where rulers are more easily overthrown, and thus considered relatively weak, the probability of revolutions is higher and a country's citizens have more incentives to revolt against the rulers rather than engage in productive market activities. Yunis*etal*. (2008) examined the effects of several political instability factors on economic growth for selected Asian countries during 1990-2005. Their study revealed an inter-connection between political stability and economic growth and emphasized that the role of political stability is even more important than economic freedom. They used a region specific analysis since it focuses on measures of political instability suitable for the underlying regions. Aisen and Veiga (2010) used generalized method of moments (GMM) estimator for linear dynamic panel data models

7

on a sample of 169 countries, and 5-year periods from 1960 to 2004 to evaluate the nature of the relationship between political instability and economic growth and they found an association of lower growth with higher degree of political instability.

Country- specific studies include the study of Munoz (2009) and Astteriou and Price (2001). Munoz (2009) used autoregressive distributed lag (ARDL) framework to investigate the link between political instability and economic growth for Venezuela for the period of 1983-2000. Munoz also found that political instability negatively affects growth but not through the investment channel. Astteriou and Price research was to test the influence of political instability on United Kingdom's economic growth for the period 1961-1997 using generalized autoregressive conditional heteroskedasticity(GARCH-M) model which revealed negative effect on growth and positive effect on growth certainty. Astteriou and Siriopoulos (2000) examined the relationship empirically for Greece and found strong negative association. All the literature previously discussed emphasizedthat political instability results in slower economic growth and empirically found statistically significant negative relationship between political instability and overall economic performance.

Even-though there is a broad empirical consensus about the negative effects of political instability on a country's economic performance in the literature, several theoretical disagreements arise. The only one, Goldsmith (1987) showed that political stability has negative effects on economic performance. Goldsmith (1987) incorporated changes in stability between two time periods. He classified his sample into four groups of countries including consistently stable countries as countries that were stable in both time periods, chronically unstable countries as countries that were unstable in both time periods, stabilizing countries as countries that became more stable in the later time period in comparison to the earlier one, and destabilizing countries that became less

stable in the later time period as compared to the earlier one.Goldsmith did not find a statistically significant negative relationship between political instability and economic growth.

Campos, Nugent and Robinson (1999) collected time series data for the variables underlying socio-political instability indices and real per capita GDP growth for the period 1960-1995 on 14 countries from Asia, 20 from Latin America, 16 from Middle East and North Africa, and 38 from Sub- Sahara Africa. Campos and Nugent (2000) and Goldsmith (1987) also used GDP as the dependent economic variable, while each constructed their own measures of political instability. Campos et al. (1999) constructed two indices to measure political instability during which they assigned one for mild and one for severe political instability, instead of using changes in government as Alesina*et al*. (1992) and Campos *et al*.(1999) hypothesized that domestic instability can have positive effects on investment in the MENA region because governments would be induced to improve policy,yet external instability would have a negative impact on investment. As Goldsmith, Campos *et al*. (1999)did not find a statistically significant relationship between political instability and economic growth. However, like DeHaanandSierman (1996) and Campos *et al*. (1999) found a significant negative relationship among African countries. In a related line of research to Grossman (1991), Murphy, Shleifer, and Vishny (1991) and Terrones (1990) used the concept of rent-seeking activities as their theoretical argument. Murphy *et al.* (1991) emphasized that in cases of a weak government that is constantly under threat of collapsing may be prone to pleasing lobbyists and pressure groups, resulting in more direct negative effect of rent-seeking activities on economic growth through un-optimal policy decisions.

There are two objections to these arguments concerning sub-optimal policies and political uncertainty. The first argument is that in a world with high propensity of

government change because the current government is corrupt, economic agents would favor such change if they view that the possible successors are going to improve. The second argument tackles uncertainty during which if the government's propensity to change is large, it becomes more certain that the government will collapse and this actually reduces political uncertainty. However, if the identity of the successor is still unknown with certainty, then like earlier results, an increase in the propensity of government change may lead to policy uncertainty and thus reluctant attempts of growth. The studies of the economic determinants of un-constitutional transfers of power were shown by Londregan and Poole (1990) by studying the effects of political instability on economic growth by dealing with the problem of joint endogeneity variables. Endogeneity is possibly found asaresult of measurement error, auto-regression with auto-correlated errors, simultaneity and omitted variables. "A loop of causality between the independent and dependent variables of a model leads to endogeneity", i.e. un-clear direction of the causality of the variables. Londregan and Poole (1990) mention that even if it is true that a high propensity of frequent government changes reduces economic growth, it may also be the case that low growth and worsened standards of living increases the probability of government change. "The effect of growth on government changes is likely to be observable in both democracies and in dictatorships. In democracies, a vast empirical literature has established that high growth in pre-election years increases the likelihood of reelection of the incumbent government: voters do not reelect incumbents if they perceive that the latter have mismanaged the economy. Specifically, voters appear to pay particular attention to income growth immediately before elections. In non-democracies the likelihood of coups d'état may also decrease with both the level of GDP per capita and its rate of growth. Low growth may increase popular dissatisfaction and create incentives for anti-

government political action." (Londregan and Poole 1990)

To conclude this section, a vast literature was developed over time to theoretically and empirically investigate the relationship between political instability and economic growth using various econometric models and methodologies. Most of the literature emphasized a clear negative relationship and concluded thatpolitical instability lead to economic inefficiencies. However, there were clear differences among researchers about the direction of causality in this relationship and the definitions and measures of political instability.

B. Regional Instability and Economic Growth

For the purpose of the thesis, regional political instability and its underlying spill-over effects on the macro-economic performance of neighboring countries need to be further analyzed. A thorough paper by Ades and Chua (1997) on the neighbor's curse depicts a strong and negative spillover effect among politically unstable countries on the economic performance of their neighbors. Ades and Chua (1997) explain that the magnitude of such a spill-over in the form of a negative externality is equivalent in size to that of a similar increase in domestic political instability. They further identify two main channels through which regional instability lowers economic performance. First, regional instability disrupts trade flows as the shares of merchandise and manufactured trade are lower in countries with high regional instability. Second, regional instability leads to an increase in military outlays as defense expenditures are higher in countries with high regional instability. In their article, Ades and Chua (1997) examined empirically the effects of regional instability, in which the authors define it as political instability in neighboring countries, on economic performance in a cross-section of ninety-eight countries from 1960-1985. The evidence presented in their paper also

suggests that "the gain from reducing regional instability extend far beyond the welfare of the country experiencing political unrest." (Ades and Chua 1997) As explained in the previous section, political instability introduces uncertainty into the economic performance of a certain country and this in turn might reduce incentives of risk-averse economic agents to save and invest affecting most economic decisions and consequently reducing growth. The relationship between political instability and economic performance is further discussed by Ades and Chua (1997). They explain the direct effects of political instability on economic outcomes. Political instability caused by major institutional disruptions and civil wars often lead to the emigration of the most qualified portion of the labor force. These wars lead to the destruction of roads, ports, and other forms of public infrastructure that is necessary for production or trade with the outside world. However, Ades and Chua mention that there is no evidence to believe that these disruptions are only suffered by the country experiencing political unrest. "It is often the case that these effects spill over to other countries in the same region or even further" (Ades and Chua 1997).

The authors offer in their study, a classic example of regional instability and economic growth's interconnection by a group of African countries. In the early 1980s, Mozambique was experiencing civil unrest and so Malawi, its neighboring country, began facing external transportation problems. Malawi's main external trading routes through Mozambique were fully closed. Malawi had to re-channel its trading routes through Durban in South Africa, which was three to four times the distance of Malawi's earlier trading routes. The Malawian economy had been already weakened due to a drought at that time and in addition to that, it was accepting an influx of refugees from Mozambique, which worsened the security situation along the borders and external transportation routes (World Bank 1992).

Rwanda had a similar experience as Malawi. Rwanda being a small country located between Uganda and Tanzania, suffered the effects of political turmoil in those neighboring countries, as they had been engaged in war for a period of fifteen years until 1985. The war had destroyed most of the transportation networks, ruined the vehicle fleet, and depleted the agricultural lands in Uganda. Rwanda was invaded by Rwandese Tutsi refugees from Uganda. Even though the government of Rwanda was able to repel the invasion, fighting along the border continued. The instability severely affected the transportation trade and tourism sector in Rwanda. "On the fiscal front,the military situation required a substantial increase in security-related outlays, as reflectedby the surge in imports of military equipment and corresponding declines in capital outlaysin the national accounts" (World Bank 1992).

"Political instability in Uganda and Tanzania also spilled over to landlocked Burundi.Transportation costs from Burundi to the nearest Indian Ocean ports of Mombasa in Kenyaand Dar Es Salaam in Tanzania remained high. Passage through these neighboring countrieswas not reliable, with occasional disputes causing serious domestic shortages anddisruptions in trade flows" (World Bank 1992).

Another example of how regional political shocks affect neighboring countries not directly involved in the conflict is the Gulf crisis in the Middle East between August 1990 and February 1991. Jordan's experience of spillover effects is worth noting. "Jordan lost export markets in Iraq, Saudi Arabia, and Kuwait, and remittances from Jordanian workers in Kuwait and Saudi Arabia. Returning Jordanian workers required higher expenditures for education and health, worsening the fiscal deficit. Tourism and transport sector income fell. Gross domestic product declined by about 0.6 percent in 1990, a sharp reversal to the 8 percent growth rate projected before the dawn of the crisis" (World Bank 1992).

For the purpose of analyzing the spill-overeffects, geographical proximity is one important factor to consider. Rauch (1993) shows evidence of externalities from geographic concentration of human capital in cities. Ades and Glaeser (1994) provide evidence on the positive influence of railroad density in nearby states on urbanization and manufacturing growth rates in the United States during the second half of the nineteenth century. Chua (1993) proves empirically, after performing tests in a cross-country setting, that a country's growth rate does not only depends on domestic investment but also on the investment of neighboring countries. "This is taken as evidence of regional spillovers from human and physicalcapital between countries located in common geographical regions."(Ades and Chua 1997)

In an Economic and Social Impact Assessment of the Syrian conflict on Lebanon for the period 2012-2014, the World Bank evaluates the shock that Lebanon has been exposed to due to the on-going conflict in Syria which depends to a large extent on the intensity of the conflict. There are no material damages to Lebanon's infrastructure, housing, capital, or human stock. Nevertheless, losses are estimated on the flows of economic activity. "The largest impact arises through the insecurity and uncertainty spillovers" bring into the country which negatively affects consumer and investor confidence. Lebanese growth is estimated to be down by 2.9 percentage points each year if the crisis continues, generating billions of dollars in losses across wages, profits, revenues, private consumption and investment affecting Lebanon in its key economic sectors such as trade and tourism. The assessment done by the World Bank proves to be in-line with the literature on regional instability and economic performance on neighboring countries as it tries to empirically evaluate and quantify the losses Lebanon is currently experiencing and proves that political instability can have

detrimental effects, not only on the country's economy suffering from political

conflicts, but also acts as a curse on its neighboring countries.

CHAPTER III

MACROECONOMIC ANALYSIS

A. Syrian Arab Republic

1. Political Background

The Syrian Arab Republic, known as Syria, is a country in Western Asia, bordering Lebanon and the Mediterranean Sea to the west, Turkey to the north, Iraq to the east, Jordan to the south, and Israel to the southwest. Syria's population is divided into diverse ethnic and religious groups, including Arab Alawites, Arab Sunnis, being the majority of the population, Arab Christians, Armenians, Assyrians, Druze, Kurds, and Turks.

Syria, the modern state, was established after World War I as a French mandate. It was the largest Arab State to emerge from the formerly Ottoman empire. It gained its independence in April 1946 as a parliamentary republic. However, the country experienced a large number of military coups in the period 1949-1971. Hafez El-Assad had been president from the period 1970 to 2000 and his government was considered to be non-democratic as he remained in power for thirty years ruling out any possibility of legalizing opposition political parties and forcing people to vote for him term after term, giving him 99.98% of the votes. The political party prevailing in Syria ever since the year 1966 is the Syrian-dominated Baath movement.

His son, Bashar Al-Assad succeeded him in the year 2000 and matched his father's autocratic rule over Syria. Initially, there were high hopes for reform under Bashar's presidency. He promised to loosen up political restrictions and allow some political opposition activities to operate in a democratic way. However, serious political

reforms did not materialize. In 2005, a coalition of prominent Syrian opposition members was formed to create the Damascus Declaration in 2005 and called for the lifting of the Emergency Law and the implementation of political reform. As a result, many of the union's leaders were quickly arrested. Nevertheless, they remained active and established the largest opposition group in the country, opting for change.

2. *The Syrian Conflict*

a. <u>The Uprising</u>

A wave of demonstrations and protests that put the Middle East and North Africa in a whole new era of political unrest has first started by the self-immolation of Mohammad BouAzizi in Tunis, towards the end of 2010. Opting to put an end to long prevailing authoritarian regimes the intensity of protests, riots, and revolutions have increased and extended to several Arab countries. The Arab spring, a term that defined the spark of change Arab populations have hoped for, have been initiated by dissatisfied citizens across the Arab countries with the rule of their authoritarian governments, which was characterized by human rights violations, political corruption, and dictatorship. As a result, the series of revolutions were able to successfully over throw regimes in Egypt, Libya, and Yemen.

Inspired by the wave of revolutions characterizing the Arab Spring, in March 2011, children in Daraa, a city located in south-western Syria to the north of the border with Jordan, wrote anti-regime graffiti on the walls of their schools. The children were promptly arrested and upon release, their bodies and faces proved signs of severe violence. Daraa citizens were outraged from the severe torture experienced by the children and started peaceful demonstrations on the streets of Daraa calling for reforms within the government's framework. However, during attempts to suppress those

peaceful demonstrations, the Syrian security forces killed four protestors and arrested many. Nevertheless, the regime's resort to violence attempting to repress such calls for reform triggered the expansion of new protests, especially at the peak of the Arab Spring. "Opposition activists quickly moved from calls for reform to taking up the slogan of the Arab Spring—the people want to overthrow the regime" (Salehand White 2013).

b. <u>Revolutions Suppressions</u>

More violent suppressions of the peaceful protests that emerged at local mosques after Friday prayers have largely played an adverse effect on the regime. Syrian citizens had nothing more to lose. They were willingly organizing large funeral marches for the killed anti-regime protesters. Even in those funeral marches, security forces would again fire on those unarmed protesters which created a perpetual series of protests which were increasing in size and expanding across other Syrian cities. On February 2, 2011, Syrians held a candle vigil in Bab Tuma neighborhood of Damascus, which was considered an act of disobedience against the Syrian Emergency Law, which banned such acts of public protests. The regime's violent response to such expressions of citizens' discontent in the city of Daraa transformed the protest movement into a popular uprising against the rule of Bashar Al-Assad. Soon enough, numerous and loud demonstrations began to break out in Latakia- the Alawite land, the Kurdish city of Al-Qamishli, and the large Sunni city of Hama. The situation was still under control of the government. The regime offered limited reforms and promised more democratization, opting to pacify the situation. Assad claimed that protests were led by foreign-funded conspirators and terrorists. Ironically, he lifted the Emergency law, issued a verdict allowing civil demonstrations, approved the formation of new political parties, and

announced his intentions to negotiate the wants of opposition groups. On the ground, these promises turned out to be fabricated words serving the media. Instead, the regime was intensifying its violence and repression of the civilians' protests, using pro-regime militias, known as Shabiha. These civilian militias included the Alawite sect and were often send to Sunni areas to disperse protests by killing un-armed protesters. The regime used such militias to commit acts of violence against opposition groups while denying liability. This divided the conflict in sectarian terms by brain-washing the Alawites, which are a minority, that soon they will be abolished by the Sunnis, if the regime collapses. In such a way, the regime effectively addressed the fear of Alawites and convinced them to become pro-regime, even though it is known that many Alawites disliked the government's rule.

The protests' movements became larger and more organized and they became a threat to the regime. "Assad responded by implementing the 'security solution,' modeled after his father's ruthless crackdown of the early 1980's rebellion in Hama that led to the deaths of over 10,000 people. Military units were called into the places where the protest movements were deemed most threatening, such as Daraa, the Damascus suburbs, Homs, and Latakia.What had originally been security forces firing into crowds of protesters evolved into military offensives using tanks, artillery, gunships, helicopters, and jets. Soldiers were now being ordered to fire on unarmed and defenseless protesters—not the foreign terrorists they had been told they were fighting" (Salehand White 2013).

After declaring the Free Syrian Army in June 2011, which is a military organization formed to protect the free and armless Syrians, the FSA coordinated with the protest movements and served as a protection for protesters against firing. Soon enough, they tried using their existing weapons to fight back the security forces of the

regime, but the latter was supplied with tanks, aircraft, and artillery by Russia and Iran and far outweighed the rebel's weapons.

c. <u>International View</u>

The United Nations has tried to play a constructive role in ending the violence in Syria. However, the U.N Security Council members, China and Russia, vetoed the resolutions attempting to use military power against Syria in condemning the regime's violence. Instead of providing advanced military support for the opposition groups, the West imposed tough sanctions against the regime in May 2011. The United States of America has contributed to care for the 1.3 million refugees in neighboring countries and allocated $510 million for humanitarian aids. The European Union has also assisted by allocating €410 million.

On June 30, 2012, the Action Group for Syria, comprised of China, France, Russia, the United Kingdom, the United States, Turkey, the ArabLeague, and the E.U., issued a joint communiqué proposing a plan for a transitional new government that could include members of the government currently in rule, the opposition, and other groups to be formed based on mutual agreements. Further, they demanded the restoration of the public services on the condition that they operate professionally and according to human rights. The disagreement between Russia and the West over Assad's role in particular in the transitional government prevented the implementation of the Geneva agreement. Recently, however, U.S. Secretary of State John Kerry and Russian Foreign Minister Sergei Lavrov announced a joint effort to revive negotiations based on the Geneva agreement.

Regionally, the Arab League imposed sanctions on the Syrian regime and suspended Syria's membership. The regional countries including Saudi Arabia, Qatar,

and Turkey offered significant aid to support opposition fighters. However, the military support of Gulf countries to the opposition groups was limited especially after the emerging of jihadists, which are extremists Islamic groups, in the conflict. With the rise of jihadists, the conflict is growing to undertake an international toll. The dangers are not just limited to Syria as the risk of violence is spilling over into its neighboring countries. Jordan, Lebanon, Iraq, Turkey, and the Israeli occupied Golan Heights have experienced bombing and fighting along its borders.

Lebanon is the most threatened country that is not only prone to suffer negative spill-over effects due to the current Syrian crisis, but also is being engaged in the conflict itself. Hizbollah, a powerful political party in Lebanon, has been supporting the Syrian government and it is admitting its assistance in fights against the Syrian opposition groups. Lebanon fears such violent acts to be transmitted into its territory and further weaken its economic and social situation.

In regard to the international response of the violence prevailing in Syria, the European Union has imposed several sanctions and embargoes on Syria, some of which are directly applicable in United Kingdom's law. Some of the embargoes impose a prohibition on the sale, supply, and export of listed luxury goods and some dual-use items and chemicals, as well as weapons and items used for internal suppression. In addition, the European Union has imposed a travel ban and asset freezes on specific Syrian officials. A range of restrictive measures were imposed on exports to Syria's oil, gas, and electricity generating industries. Other restrictive measures were placed on Syrian banks and insurance and the European Union prohibited its member states to financially support the Syrian government. One important embargo imposed against human rights abuse is the prohibition on the sale, supply, or export of any software intended to be used by the Syrian regime in spying on the internet and telephone

communication of its people. Member states in the European Union also prohibit any technical and installation assistance that support such items. The United States of America has also imposed restrictive measures on the Syrian government aiming to stop the government's weapons proliferation, involvement in terrorist activities, and its ongoing attacks on Syrian civilians. The sanctions deprive the Syrian regime of financial revenues and other forms of assistance that can be used to sustain and prolong its violent attacks. It prohibit any financial transaction with the Syrian government and blocks any property owned by the Syrian government leaders, and any individual involved in planning, sponsoring, and organizing terrorist attacks. U.S sanctions also prohibit export of items on the U.S. Munitions List, all items on the Commerce Control List, and all other U.S. products except food and medicine.

d. Current State of Conflict

Since the uprising of the conflict, in March 2011, out of the 22 million in total population, millions of Syrians are currently internally displaced and in extensive need of humanitarian assistance. Almost 2.3 million Syrian refugees were driven into neighboring countries including Lebanon. To top it all, the United Nations human rights office declared the death toll to be 120,000 by the end of September 2013. From peaceful calls to reform within the government's framework, the Syrian conflict expanded to a sectarian conflict in nature and was declared to be a civil war between Alawite militias and Shia groups against Sunni groups. The violence prevailing in Syria is threatening the stability of its neighboring countries, especially Lebanon and Iraq. In the short term, neither pro- Assad forces nor the opposition groups are achieving outright victory as the conflict between Al- Qaeda- Islamic State of Iraq and other opposition groups has intensified. The emergence of such terrorist groups and their

violent attacks seeking the imposition of Sunni Islamic laws on the Syrian society are

significantly contrary in to the United States' preferences for Syria's political future.

The combined effort of the United States and members of the United Nations Security

Council is seeking to remove chemical weapons and related harmful materials from

Syria. The Security Council has advocated negotiations in order to settle the conflict.

Such negotiations opting for a new transitional government were rejected by opposition

groups as they are against leaving current members of the Syrian government in power.

Regionally, the large influx of refugees into neighboring countries exerts a social and

economic pressure on those countries. The expansion of armed extremist groups in

Syria, and the involvement of Iran, Turkey, and Sunni Arab governments in Syria's

civil war are currently negatively affecting the security situation in the Middle East

region. "The humanitarian and regional security crises emanating from Syria now

appear to be beyond thepower of any single actor, including the United States, to

contain"the conflict and its expansion (Congressional Research Service 2014).

B. Economic Impact of the Crisis on Syria

In an attempt to analyze the current economic state of Syria since the

emergence of the conflict in March 2011, this thesis uses the most recent evidence and

data published by the World Bank, Economic Intelligence Units, United Nations

Development Program (UNDP) and United Nations Relief and Works Agency

(UNRWA) reports. In a commissioned report by UNDP and UNRWA,itis estimated

that the "Syrian economy has experienced a total economic loss of USD 103.1 billion

by the second quarter of 2013 due to a massive de-industrialization as a result of

business closure, capital flight, infrastructure destruction, as well as sanctions and

embargoes."(UNRWA 2013) This section will analyze the impact of the crisis on

Syria's macro-economic fundamentals.

1. Gross Domestic Product

Figure 1 below depicts Syria's nominal GDP and real GDP growth rates. From the year 2009 to 2010, Syria experienced an economic growth equivalent to 11.52% increase in nominal GDP. However, since the uprising of the conflict in the first quarter of 2011, Syria's nominal GDP remarkably declined. From the year 2010 to 2011, nominal GDP declined by 9.48%. For the period 2011-2013, 22.72% decline in economic growth was witnessed.   According to the Economic Intelligence Units forecasts, Syria's economic performance will continue to be hampered by the impact of the civil war to reach 100% decline by 2015. The sharp decline in economic growth has been attributed to the depressed domestic demand that hit private consumption, which is a main component of GDP and is considered a direct measure of household welfare. Depressed domestic demand has been affected by the reduction in domestic supply, which in turn reduced income sources of Syrian households. The drop in private consumption is a reflection of the dreadful humanitarian condition of Syrian households especially after the departure of over two million refugees to neighboring countries, job losses, business closures and bankruptcies, and destruction of private properties. Further, sanctions and embargoes internationally imposed on Syria have added more pressure on its economy by the decline in oil production and exports. Along with domestic violence and political instability in Syria, investments in the economy have been stagnant and the outlook on Syria's conflict is still uncertain. In an UNRWA report assessing the social and economic impact of the Syrian crisis, the reduction in net investment is estimated to be USD 16.6 billion. Furthermore, the Syrian economy witnessed real GDP growth of 6% in the year 2009 which slightly declined to 3.6% in

24

2010. However, a sharp and negative decline was witnessed after the emergence of the

conflict as real GDP growth rates were -3.4%, -18%, -19% in the years 2011, 2012,

2013 respectively.

Nominal GDP & Real GDP Growth
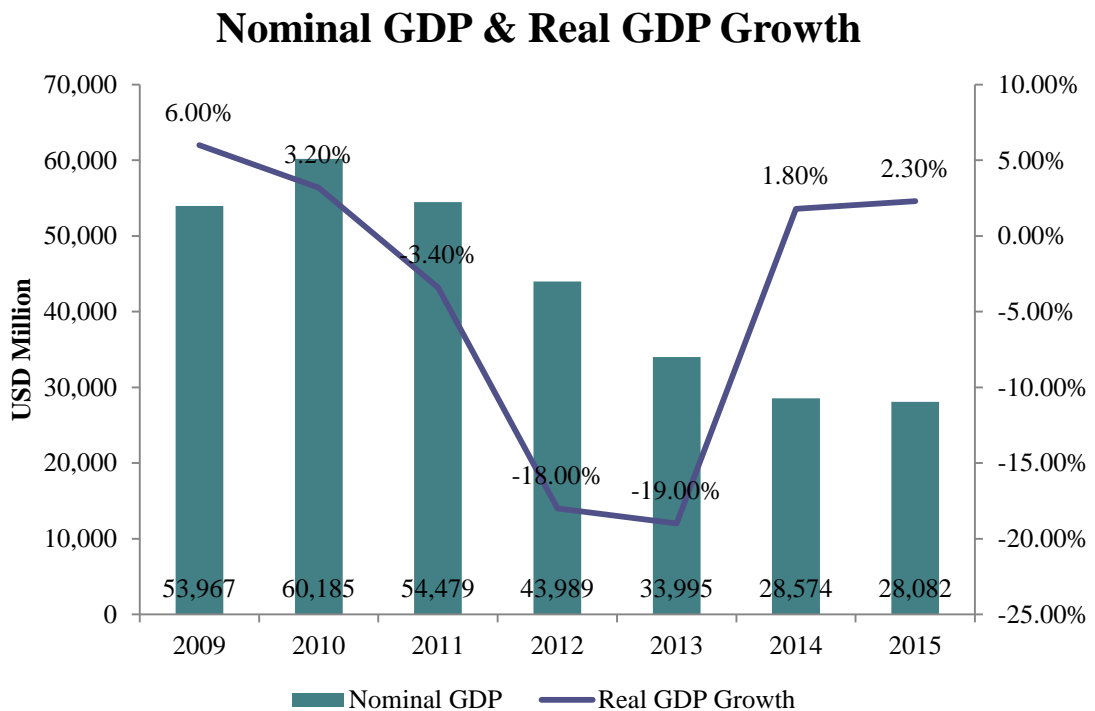
Fig.1. Syria's Nominal GDP and Real GDP Growth Rates
Source: Economic Intelligence Units, Syria Country Reports.

As shown in the graph above, real GDP growth rate is expected to increase in

the years 2014 and 2015.The Economic Intelligence Units forecasts that the economy

will gradually recover in 2014 as it adjusts to the status of the conflict and the "realities

of the military stalemate" (EIU 2014). Further, United Nations sanctions on Syria are

unlikely to be tightened after the explicit Russian and Chinese resistance. The economy

is expected to stabilize, however, "this will leave it almost one-third smaller compared

to its pre-crisis volume in 2010"(EIU 2014).

2. *Current Account Balance*

Syria is also experiencing a trade deficit with a negative trade balance of minus USD 7,310 million in 2011 down from minus USD 3,663 million in 2010. Since the out-burst of the Syrian civil war, substantial economic sanctions and embargoes were imposed on Syria restricting trade with the Arab League, Australia, Canada, the European Union, including other European countries, Japan, Turkey, and the United States. These sanctions have put enormous pressure on the Syrian current account balance widening the deficit from minus USD 369 million in 2010 to minus USD 7,726 million in 2011. The current account deficit, as shown in the table below, continues to be substantial and accounts to be minus USD 6,740 million and minus USD 5,413 million in the years 2012 and 2013 respectively. The deficit's slight decline is not attributed to a rise in exports of merchandises. On the contrary, exports declined from USD 12,273 million in 2010 to USD 10,288 million, USD 3,876 million, USD 2,675 million, in the years 2011, 2012, and 2013 respectively. "This deficit was driven by the turndown in the oil and manufacturing exports, which deprived the economy of crucial sources of hard currency.The lack of export capacity and the huge demand for the importation of essential goods, such as food and medicine, has created serious challenge to economic sustainability which cannot be reversed without a recovery of domestic production" (UNRWA 2013). As shown in the graph below, the current account balance constituted -1.91% of nominal GDP in 2009 which improved to -0.61% in 2010. However, a sharp decline was witnessed reaching -14.18%, -15.32%, -15.92% in the years 2011, 2012, 2013.

According to the forecasts of the Economic Intelligence Units, the current account deficit is expected to remain "exceptionally wide" in the face of restrictions on oil exports and the impact of the war on the Syrian businesses. The current account

balance is expected to constitute -16.63% of nominal GDP in 2014 and -17.12% in 2015. However, "persistent wide trade deficits will be partly offset by the strong current transfers inflows largely reflecting rising aid inflows", as well as credit assistance coming from Iran and Russia (EIU 2014).

The services balance[1] has also been affected by the current crisis situation and is accounted to be minus USD 456 million in 2013, down from USD 32 million, USD 429 million in the years 2012 and 2011, respectively. It is worth to note that the pre-crisis services balance accounted for USD 3,860 million in 2010, a volume that is unattainable currently and in the foreseen future.

Trade & Current Account Balances
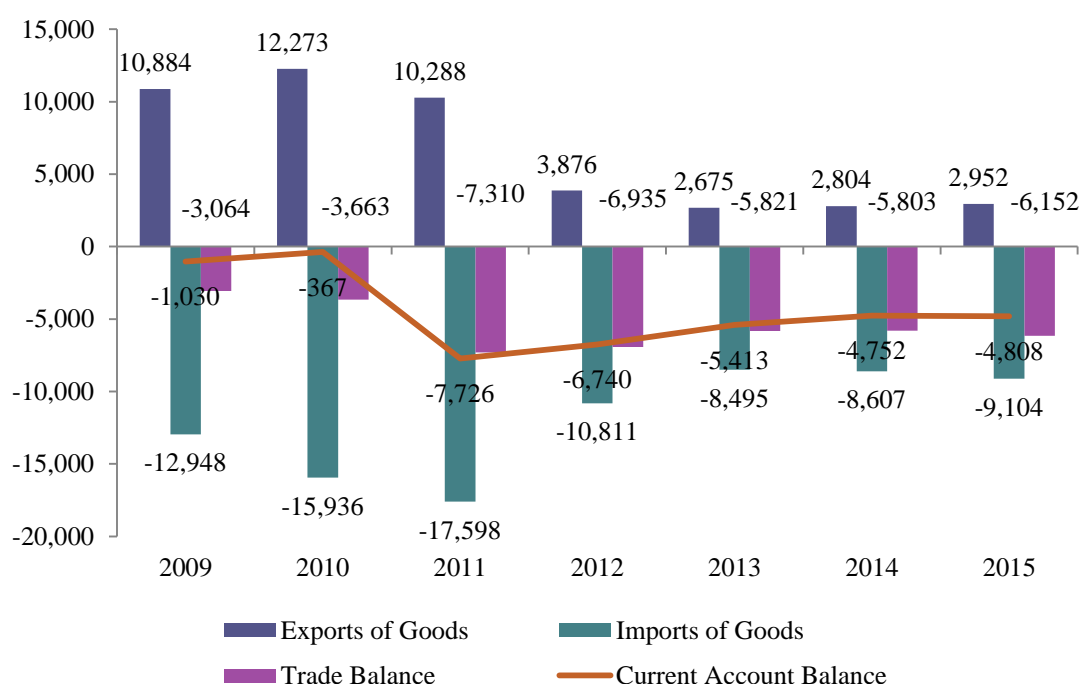
Fig.2. Syria's Trade and Current Account Balances
Source: Economic Intelligence Units, Syria Country Reports

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[1] Refer to Statistical Appendix I.

Current Account Balance
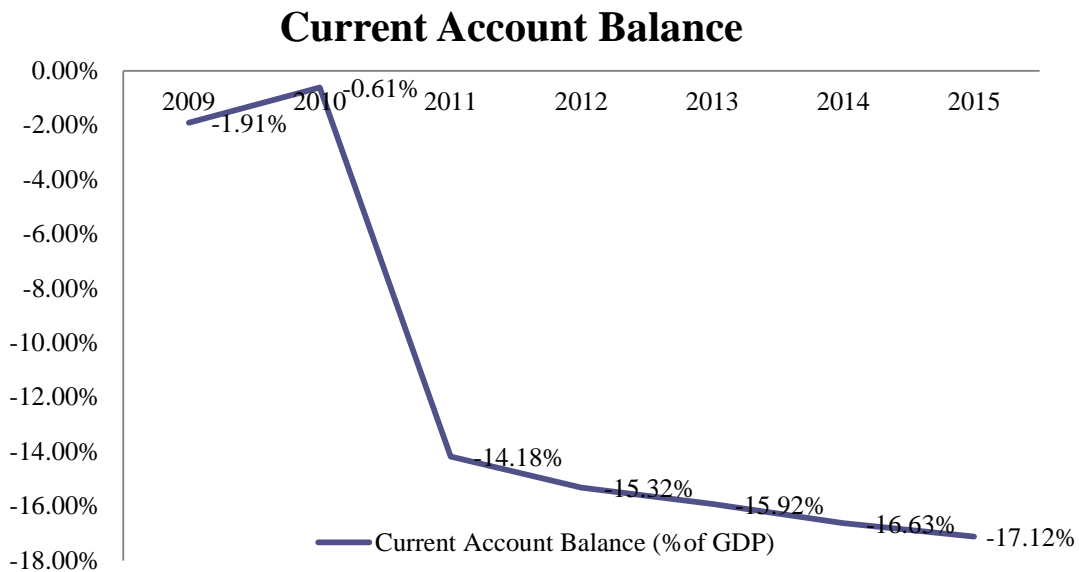
Fig.3. Syria's Current Account Balance as Percentage of GDP
Source: Economic Intelligence Units, Syria Country Reports

3. Exchange Rate

Syria has a fixed exchange rate system pegged to the Special Drawing Rights (SDR) with limitations on capital flight.2The paralyzed economic movement, as a result of the ongoing Syrian crisis, has put enormous pressure on the Syrian exchange rate against the dollar. "The dramatic drop in the supply of locally produced commodities and the increase in imports have intensified the pressure on the exchange rate of the Syrian pound." (UNRWA 2013) Furthermore, private capital flights' and the accumulation of hard currency have exerted additional pressure on the Syrian banking system and hence, its' underlying exchange rate. Monthly data was collected on the exchange rate of the Syrian pound (SYP) against the dollar from the Economic Intelligence Units and it is reported that the exchange rate increased from SYP 46.9 in

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[2]SDR is neither a currency nor a claim on the International Monetary Fund (IMF). SDR was created by IMF as an international reserve asset and it is a potential claim on the freely usable currencies of IMF members. SDR is defined as a basket of currencies consisting of the euro, Japanese yen, pound sterling, and U.S. dollar.

January 2011 (before crisis uprising) to SYP 54.7in December 2011. Upon the

escalation of the crisis in 2012, the Commercial Bank of Syria is the sole responsible for

the manipulation of the exchange rate. The exchange rate continued to depreciate

reaching SYP 74.3 by the end of 2012 as the Central Bank of Syria failed in stabilizing

the financial system and maintaining the value of the Syrian pound.   Moreover, the

sanctions imposed on Syria's oil and non-oil exports have added negative impact on the

exchange rate and forced the prices of all consumer goods to increase. As depicted in

the graph below, the second quarter in 2013 has witnessed a substantial depreciation in

local currency reaching SYP 139.9 in April 2013 as the Central Bank of Syria was

forced to devalue the official rate by 18.4% as compared to 8.9% in the first quarter of

2013. "This has led to an overall depreciation of the official exchange rate by 115%

between March 2011 and June 2013" (UNRWA 2013).
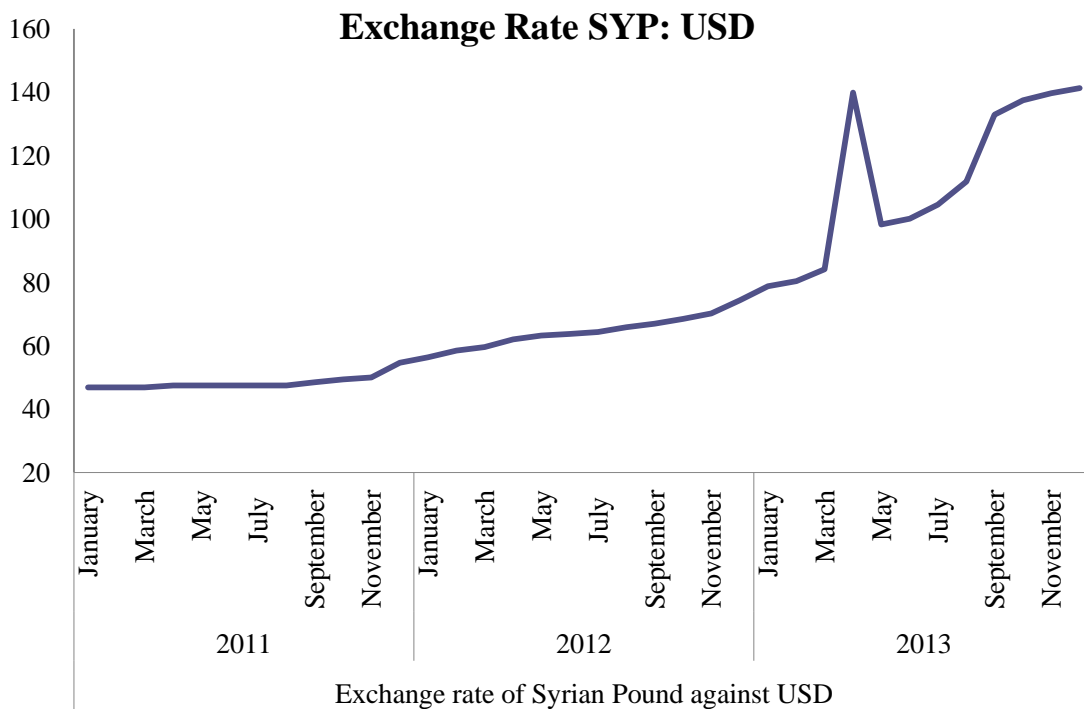
Fig.4. Syria's Exchange Rate
Source: Economic Intelligence Units, Syria Country Reports

The regulated devaluation of the exchange rate by the Central Bank of Syria was expected to limit speculations over the fluctuation of the exchange rate. Nonetheless, the black market has expanded to trade at an average of SYP 182 in June 2013 compared to an average of SYP 107 in March 2013. It is quite intrinsically difficult to find and calculate the unofficial rate of the Syrian currency, but several reports have confirmed the large gap between the official and un-official exchange rate of the Syrian Pound. As depicted in the below figure, the Syrian pound black market rate has soared since the escalation of the crisis, reaching SYP 320 per USD in July 2013 as compared to an official rate of SYP 104.5 in the same month up from a pre-crisis official rate of SYP 47. It is not uncommon for Syria to experience a widening gap between its official and unofficial rates as it is currently considered a fragile economy and as a result, experiencing an increased demand for hard currencies, such as the dollar. However, the Syrian pound's unofficial rate has been recently converging with the official rate due to increased tightening of capital controls on one hand, and improved expectations about the current political situation, on the other hand, as opposition groups do not actually fully reject the possibility of including President Assad in a transitional plan for the short-to-medium term. Even though the black market has recently recovered, it is expected that the Syria's weak economic conditions to repeat themselves resulting in the resumption of currency depreciation and a steady widening in the gap between official and un-official exchange rates.

The Fall in the Value of the Syrian Pound   320 Syrian pounds per US dollar

Black-Market   230

Official   1?0

                                                    50

Apr.   Jul.   Oct.   '13   Apr.   Jul.   Oct.

Quartz | qz.com   Data: Alaqstad Alswry, Aliqtisadi, Central Bank of Syria and Syria News
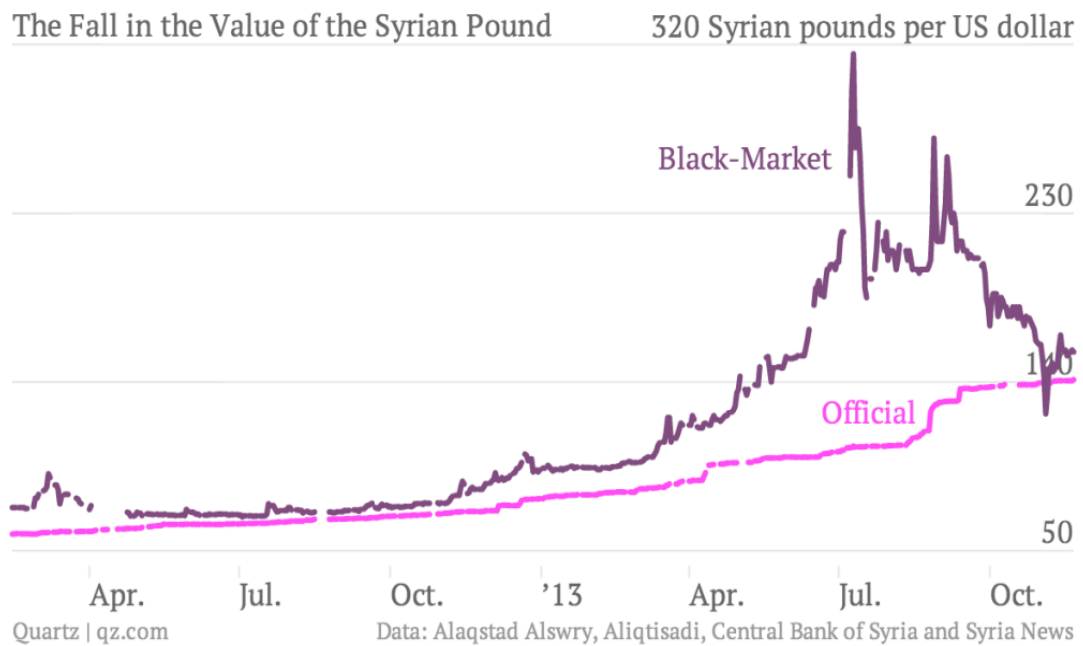
Fig.5. Syria's Exchange Rate: Official vs. Black Market
Source: Quartz; availablefrom http://www.quartz.com

4. International Reserves

According to the Economic Intelligence Units forecasts, the Syrian pound is expected to continue depreciating against the US dollar and other major currencies for the period 2014-2018. The expectation of a continued decline in the Syrian pound is attributed to the collapse in exports revenue due to the sanctions imposed resulting in a shortage of foreign exchange. In addition to that, Syria's foreign reserves are extremely close to being exhausted. In the year 2009 and 2010 Syria's international reserves were USD 17,436 million and USD 19,519 million respectively. However, as shown in the graph below, international reserves started depleting as the crisis prolonged to reach USD 1,895 million, as estimated by EIU, in the year 2013.

International Reserves
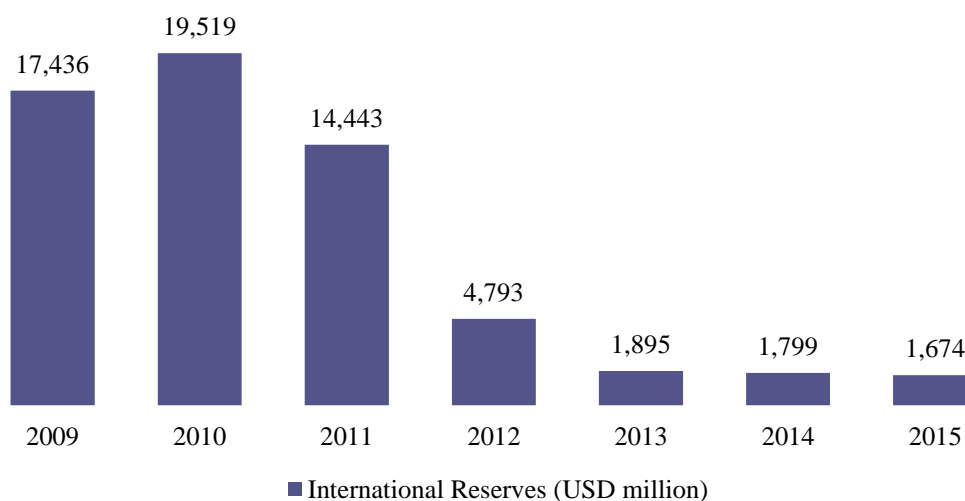
Fig.6. Syria's International Reserves
Source: Economic Intelligence Units, Syria Country Reports

5. *Inflation*

In parallel to the increase in energy prices and exchange rate devaluation, the Syrian crisis had a remarkable impact on domestic consumer prices. The major determinants of inflation are the scarcity of resources and insecurity, both of which have been highly affected directly from the on-going armed conflict. Monthly data on inflation rates in Syria from January 2011 to August 2013 was collected from the Economic Intelligence Units and are shown in the graph below. Upon the uprising of the crisis, in March 2011, Syria had a single digit smoothly fluctuating inflation rate. However, as the conflict escalated and worsened the security and economic performance across Syria by the end of 2011, inflation rates increased from 5.8% in November 2011 to 11% in December 2011. Prices of mostly all consumer goods in Syria soared pushing further a double digit inflation rate. Month on month, as shown in the below graph, the inflation rate was increasing steadily reaching 50.6% by the end of

the year 2012. The collapses of government production as a result of capital flight,

property destruction, business closures, and high unemployment rates, have resulted in

hyperinflationary rates. "The scarcity of basic commodities in some regions due to the

contraction of internal trade due to insecurity, hijacking and destruction of haulage

vehicles has also contributed to the problem, as have lack of raw materials, equipment

and strategic assets due to sanctions. In 2013-Q2, devaluation of the Syrian pound

increased the prices of most goods, with fuel increasing by 70% and cooking gas by

150% during the quarter. Prices have also risen due to increased fees and direct and

indirect taxes imposed by the government as it tries to bridge the budget deficit"

(UNRWA 2013).Moreover, due to the lack of recent and current data of inflation rate in

Syria, it is estimated by the Economic Intelligence Units that the inflation rate in 2013

was 55%. However, EIU reports that due to the slowdown in the depreciation of the

Syrian Pound, consumer price growth has eased in recent months and EIU expects the

average inflation rate to be around 16.2% in 2014.
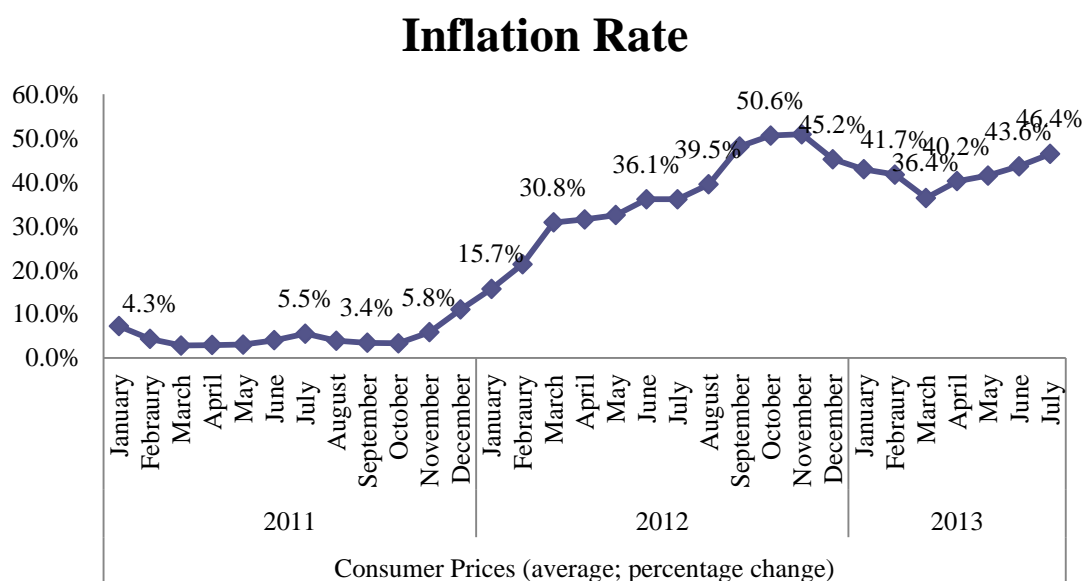
Fig.7. Syria's Monthly Inflation Rate
Source: Economic Intelligence Units, Syria Country Reports

33

6. Unemployment

Unemployment rates have remarkably increased as a result of the armed conflict. Millions of Syrians have lost their jobs and were displaced into places of shelter and less insecurity. In many communities across the country, large scale shutdown of many economic activities resulted in massive job losses, with almost 2.33 million job opportunities vanishing, as stated in an UNRWA report. As shown in the graph below, the unemployment rate in Syria have increased from an average of 8.6% in 2010 to an average of 14.9% in 2011. Based on EIU estimates and forecasts, the unemployment rate is estimated to be almost 25% in 2012 and 35% in 2013. Such high rates are as a result of the enormous growth in informal economic activity, as well as street market micro-entrepreneurship as the Syrians strive to seek basic ways to provide enough food and shelter for their families. The lack of law and order and the insecurity and prevailing across Syria's towns is causing chaotic communities of violence as dark markets create criminal and illegal employment in smuggling, kidnapping, extortion and racketeering, human trafficking, and theft. In fact, such forces are hindering the economy further. In addition, the migration of skilled workers and the crisis in the educational system are causing more distortions in the labor markets. As the crisis prolongs, labor markets are being more characterized by the lower unskilled labor supply accepting lower salaries in order to survive which does not really help in improving the accumulation of human and financial capital.

Unemployment

35.0%

33.0%

30.0%

25.0%

14.9%

8.1%   8.6%

| 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |

■ Recorded Unemployment (average;%)
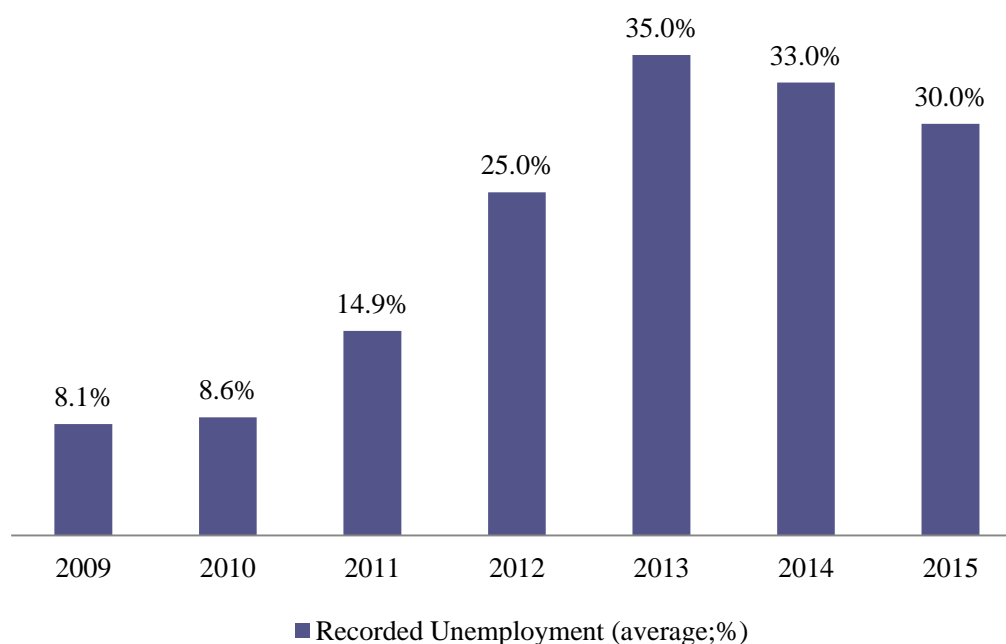
Fig.8. Syria's Unemployment Rate
Source: Economic Intelligence Units, Syria Country Reports

C. Spillover Effects of the Syrian Crisis on Lebanon's Economy

Lebanon has always been a battlefield country of local and regional conflicts

rendering it as one of the most fragile countries in the Middle East. Since its

independence in 1946, Lebanon was pulled into many conflicts and wars which

provoked its stability and security. The highlight of Lebanon's internal conflicts was the

Lebanese civil war that prevailed from the year 1975 to 1990. Sectarian violence and

massacres occurred within the country including Palestinian militias, as the Palestinian

movements relocated most of its fighting strengths to Lebanon. During this period,

Lebanon also witnessed a large influx of Palestinian refugees. In the early phases of the

civil war, Syrian troops occupied Lebanon in 1976 opting to restore stability and end the

violence. However, it ultimately failed to stop the conflict and evolved the hundred days

of war which was a sub-conflict between the Maronite Lebanese Forces and the Syrian

troops. Along with the Lebanese civil war, the Palestinian Liberation Organization (PLO) was fighting against Israel from the Lebanese territories which escalated a conflict between the two countries and resulted in the Israeli invasion onto Lebanon in the year 1982. After severe violence, massacres, assassinations, and escalated internal sectarian conflicts, the fighting has ended, but Lebanon still bears scars from the civil war. Syrian troops remained dispersed in different locations across Lebanon till the year 2005 when they withdrew the Lebanese territories, after the assassination of Prime Minister Rafiq Hariri which highly provoked the Lebanese against Syrian prolonged occupation. Syria had always a large role in Lebanon's affairs given its geographical proximity to Lebanon. Nowadays, with the conflict worsening in Syria, Lebanon faces a new threat. Lebanon is at risk to being pulled into the Syrian civil war where already isolated clashes that are associated with the Syrian conflict have taken place across the country. "The Syrian civil war is amplifying Lebanese political divisions, fuelling militancy and pushing Syrian President Bashar al-Assad to stir up regional instability"(Dacey 2012).

Lebanon's existing vulnerability coupled with current manifestations of instability provoked by the conflict in Syria has made Lebanon prone to suffer political, social, and economical spillover effects. For the purpose of this thesis, economic spillover effects on Lebanon's key macroeconomic fundamentals and sectors will be assessed in this section.

1. Real Sector

a. GDP and Investment Share of GDP

Lebanon suffered from large exogenous shocks that threatened its stability and economic growth in the years 2005 and 2006 with the assassination of its Prime

Minister Rafiq Hariri and a war with Israel. However, the economy was able to recover and recorded an increase in real GDP growth from 1.4% in 2006 to 8.4% in 2007. As of 2008, Lebanon's economy was resilient in face of the global financial crisis during which many economies experienced its worse growth performances and experienced ongoing real GDP growth rates of 8.6% in 2008 and 9% in 2009. In addition, during that period, the Middle East faced a slowdown in business and economic activity especially after the decrease in oil prices as the global demand for oil was reduced. However, Lebanon benefitted from the strong regional demand for its services and large inflows of capital and transfers. Real GDP growth has declined to 7.0% in 2010 in face of higher internal political tensions in that year. In 2011, political instability harshly hindered economic stability with the increasing polarization among Lebanon's political parties resulting in the resignation of the national unity government in January followed by a long vacuum period until a new government was formed in June. "The government's fall in January triggered deposit outflows and currency conversions leading to pressure on pound and a loss of half of BDL net foreign exchange holdings." (IMF 2012) In addition to internal political disputes, the regional turmoil and the escalation of the Syrian crisis shook consumer and investor confidence in Lebanon. As a result, real GDP growth declined to 1.5% in 2011 and remained stagnant for 2012 and 2013 proving the negative spillover effects of the Syrian crisis onto Lebanon's economic performance.

Real GDP Growth & Investment Share
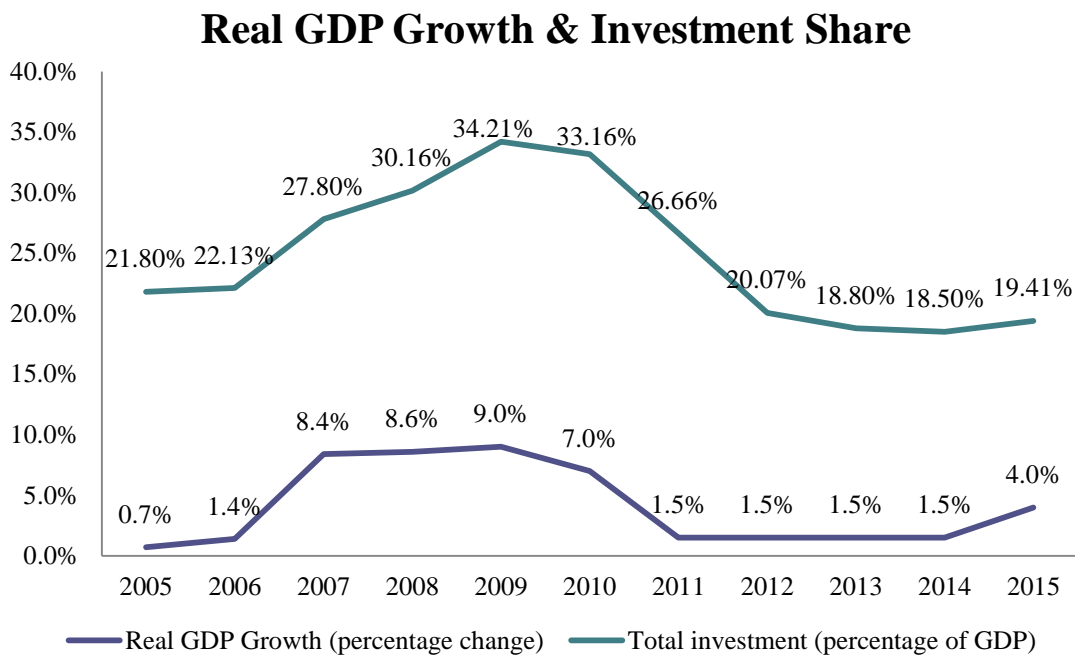
Fig.9. Lebanon's Real GDP and Investment Share of GDP
Source: IMF, World Economic Outlook Databases

The International Monetary Fund (IMF) expects the stagnation in real GDP growth to continue in 2014 but forecasts economic growth of 4% in 2015. It is worth to note that prior to the Syrian conflict, the IMF and World Bank projected an expansion in Lebanon's real GDP growth of 4-4.5%. Most economic forecasts made prior to the escalation of the Syrian crisis projected a rapid recovery for Lebanon from the deterioration suffered in 2011. Unfortunately, this was not the case. The Syrian crisis imposed serious spillover effects onto Lebanon with a period of economic stagnation. A representation of real GDP growth is shown in Figure 9 through investments share of GDP. As investors gained confidence in Lebanon's economy after the war in 2006, investment reached 34.21% of GDP in 2009 up from 22.13% of GDP in 2006. Nevertheless, the stagnation in real GDP growth after the uprising of the Syrian crisis in 2011 is attributed to the drop in investment level to reach 18.8% of GDP in 2013, the lowest investment level since 2005.

GDP Breakdown by Economic Activity (2011)
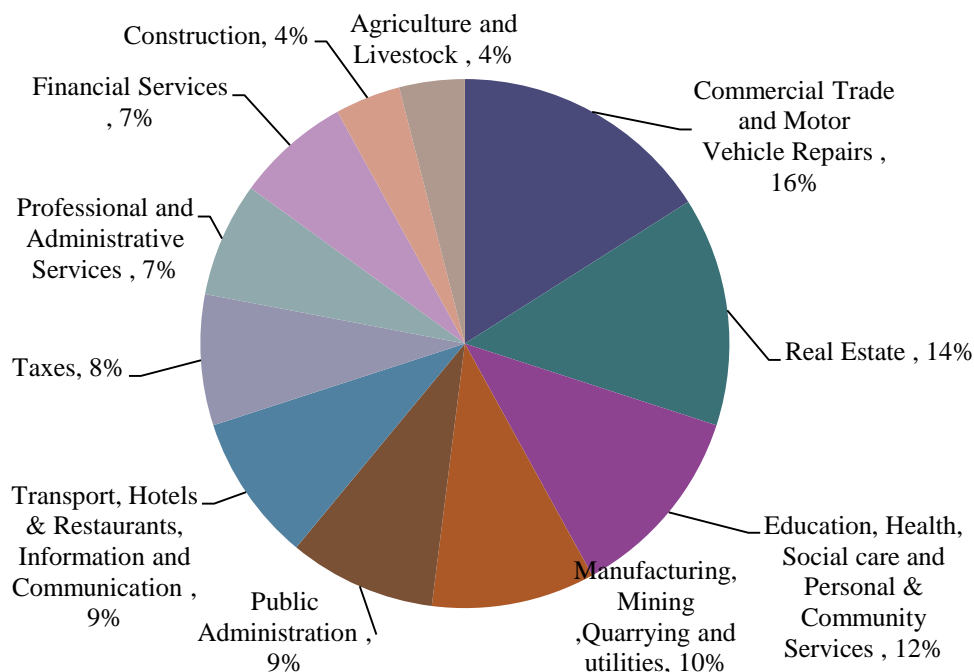
Fig.10. Lebanon's GDP Breakdown by Economic Activity
Source: Investment Development Authority of Lebanon (IDAL)

A closer look at the constituents of Lebanon's income, it can be observed that the economy's main source of income is commercial trade which constituted 16% of GDP in 2011. Real estate sector also constitutes 14% of GDP. Furthermore, Lebanon's growth relies on education, health and social care services, manufacturing, as well as financial and tourism services.

b. <u>BDL Coincident Indicator</u>

In 1994, the Central Bank of Lebanon has adopted new instruments to help in "conjunctural diagnosis" in Lebanon. One of these instruments is a composite indicator called "coincident indicator" that is a monthly approximation to GDP. It is composed of seveneconomic variables that reflect the Lebanese economic activity. The coincident

indicator's components are foreign trade, electricity production, passenger flows, money stocks (M3), cleared checks, cement deliveries, and oil derivative imports. The coincident indicator (CI) is computed from the total of the above quantitative variables as weighed according to their importance in GDP. Consequently, the CI is a proxy to GDP and the performance of economic activity.

BDL Coincident Indicator

PM Rafiq Hariri Assassination

War with Israel

Clashes between Islamist Militants and the military in Palestinian camp Nahr El Bared

Hizbollah and its alliances boycott's Hariri's special tribunal

Political Tension in face of false witnesses about Hariri's assassination

National Unity Government collapses after Hizbollah and his allied ministers resign

Clashes in Sidon and bombings in Beirut and Tripoli

Syrian conflict spill-over in deadly clashes between Sunni Muslims and Alawites in Tripoli and Beirut

BDL Coincident Indicator   12-months moving average

Fig.11. Lebanon's Monthly BDL Coincident Indicator
Source: Banque Du Liban

As shown in Figure 11, the slow-down in Lebanon's economic activity is not only attributed to local political disputes and economic mismanagement but it is

alsocorrelated with many political and security shocks arising from clashes between Syria' alliances in Lebanon and Lebanese alliances against Syria's regime. In fact, the Syrian conflict materialized its spill-over effects onto Lebanon with the clashes between Sunni Muslims and Alawites in Tripoli and on the Lebanese borders with Syria. The insecurity these clashes brought to the country, levy a burden on the overall economic performance in Lebanon by reducing people's incentives to consume and invest in the country.

c. <u>Unemployment</u>

As the Syrian crisis escalated and prolonged, the large influx of Syrian refugees have sought several ways of employment to ensure food and shelter for their households. According to the World Bank's report, labor supply in Lebanon is expected to increase by 30% to 50% causing major effects in the labor market outcomes. "An additional 220,000-324,000 Lebanese are expected to become unemployed." (World Bank 2013) Unemployment rates in Lebanon have increased after being 8.6% in 2010 to 9.5% and 10.3% in 2011 and 2012, respectively.[3]

The labor market in Lebanon is also characterized by high informal unemployment rates during which 19% of the workers get paid an informal wage without any access to social insurance and labor regulations. Moreover, as shown in Figure 14, around 36% of the labor force is self-employed, however 31% out of them are low-skilled workers involved with low productive activities and have limited access to formal insurance arrangements.

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[3] No recent data about unemployment in Lebanon is published. For this reason, the analysis is limited to the year 2012 and relies more on qualitative data.

Lebanon Unemployment Rate

10.3%

9.5%

8.7%   8.7%   8.6%

10.5%
10.0%
9.5%
9.0%
8.5%
8.0%
7.5%

2008   2009   2010   2011   2012
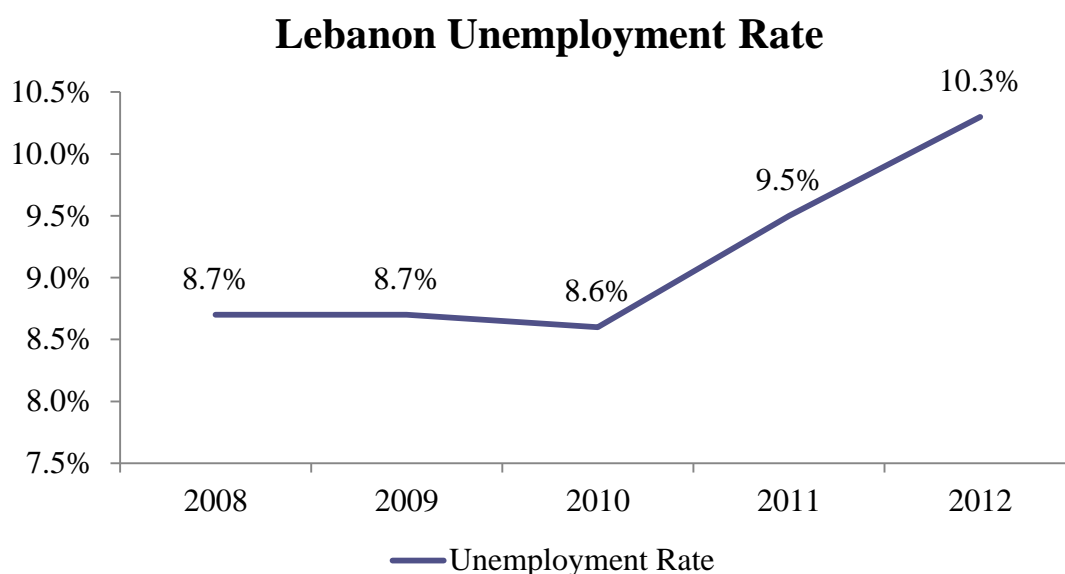
——Unemployment Rate

Fig.12. Lebanon's Unemployment Rate
Source: United Nations Economic and Social Commission for Western Asia, Byblos
Bank, 2013.

Prior to the Syrian conflict, the Lebanese labor markets were already

characterized by low skilled Syrian migrant workers who are mostly employed in

construction, agriculture, and services. According to the World Bank, "estimates

suggest Syrian workers constituted around 17% of the total labor force in the country, or

around 300,000 workers pre-conflict." (World Bank 2013) Furthermore, the large influx

of Syrian refugees to Lebanon has exerted additional pressure on the total local labor

supply, especially for the poorly educated individuals and informal employees as the

majority of the traditional skills that Syrians bring into Lebanon will mostly fill low

productivity jobs. According to the World Bank's estimates, a 30% expansion in labor

supply was attributed to the inflow of refugees in the year 2013. It is worth noting that

these estimates do not account for the Palestinian refugees coming from Syria, during

which they tend to settle in already existing Palestinian camps, unlike Syrian refugees

who are mostly present among the Lebanese. The large inflow of additional labor

supply will have devastating effects on the Lebanese labor market. Lebanon is most

likely going to experience a rise in unemployment rate, particularly among the low

educated and low skilled, and a rise in self-employment and informal wage

employment, and consequently, a fall in wages is a likely situation. As the Syrian

refugees constitute a substantial portion of the Lebanese labor force, it is projected that

they may constitute between 27% and 35% of the Lebanese labor force in 2014. (World

Bank 2013) This significant portion of Syrian workers in the Lebanese labor force is

attributed to the fact that Syrian workers' labor costs are low and their demands in terms

of working conditions are minimal as they accept tough jobs mostly in agriculture and

construction for low wages and no employment security, unlike the Lebanese, who find

such jobs unappealing. According to a survey done by the International Labor

Organization (ILO) in 2013, "almost half of the Syrian refugees are involved in

agricultural or domestic services, followed by12% who are working in

construction.These are low skilled occupations that provide little income,social

protection and job security" (ILO 2013).

Nonetheless, recent anecdotal evidences based on qualitative interviews done

by ILO in 2013 with Lebanese employers state that the Syrian labor force in Lebanon is

being expanded to skilled and self-employed jobs in sectors such as hospitality and

sales, adding to the competition with the Lebanese labor force. Syrians already

established micro and small enterprises, particularly small restaurants and retail shops.

These businesses comprise a comparative advantage in pricing when compared to the

Lebanese shops and restaurants. This comparative advantage is attributed to the fact that

Syrian's investors tend to evade taxes and running costs, and often import their products

and equipment from Syria at a cheaper cost. Moreover, self-employed Syrians working

as craftsmen, plumbers, carpenters, or mechanics have proved to be more skilled than

Lebanese and provide their service with a cheaper cost to Lebanese households, and consequently they tend to crowd out Lebanese workers in similar fields. The emerging Syrian businesses have and will impose severe threats to Lebanese businesses in their country, tightening further labor market conditions and earnings, as they face higher expenditure[4] due to the rising cost of goods and services[5] due in some part to the increased costs on imports[6].

The large increase in labor supply with a stagnant labor demand would have an equivalent effect of an economic recession on labor markets. The large inflow of Syrians invading the Lebanese labor force will have devastating effects on its labor markets. Syrians engaging in self-employment and small-scaled businesses would substitute the Lebanese skills and contribute to reduce their wages. Even though, such businesses would contribute to economic growth in essence, Syrians entrepreneurs tend to hire Syrian workers as well, increasing further domestic unemployment and informal employment. The World Bank estimates that overall unemployment would increase by 8 to 11 percentage points and it would take Lebanon several years for unemployment to

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[4] "To cope with increased expenditures and decreased incomes many Lebanese households are reducing savings, increasing debt, or cutting on meals. Beka'a residents, for instance, mostly purchase food on credit *(59* percent), borrow food (42 percent), and are spending from their own savings(37 percent). North residents buy "only afford to" food items (43 percent), reduce quality of meals (40percent) and spend from savings (40 percent). Spending from savings indicates that Lebanese households might not be able to sustain the current situation in the near future"(UNDP 2012; World Bank Report 2013).

[5] "Local field studies pointed out to increases in food prices in 2012 by an average of 18percent in Beka'a and 12percent in the North. This is, in part, fueled byincoming cash from Arab countries to Syrian refugees, increased costs of transporting products to Lebanese markets due to increased prices of fuel, and the border closure which led to Lebanese purchasing goods and services from Lebanon when they used to purchase them from Syria" (UNDP 2012).

[6] Costs on imports have increased due to the rising fuel costs and the disrupted trading routes between Lebanon and Syria.

converge back to the pre-crisis level[7] (World Bank 2013).

Equilibrium Distribution of Lebanese Labor Force by Employment Status
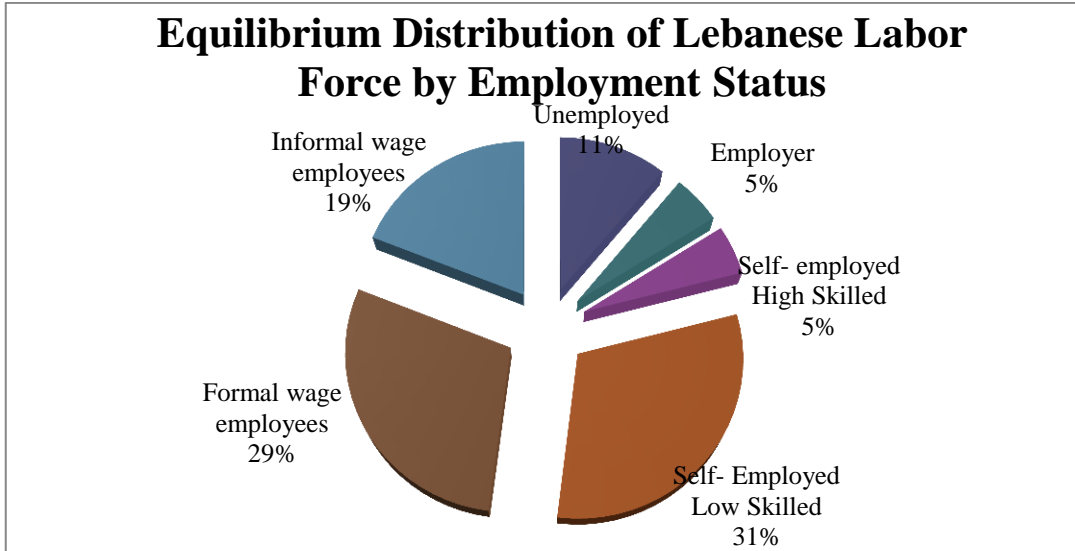
Fig.13. Lebanon's Equilibrium Distribution of Labor Force by Employment Status
Source: United Nations Economic and Social Commission for Western Asia, Byblos Bank, 2013.

Type of Occupation of Syrian Refugees
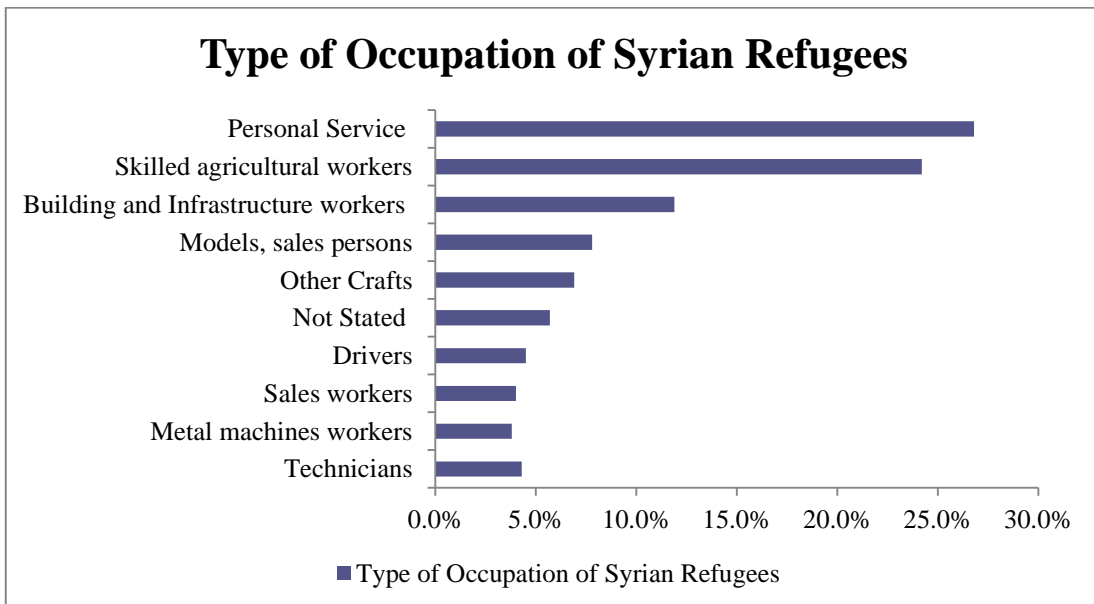
Fig.14. Syrian Refugees' Occupation by type
Source: Rapid Assessment of Syrian Refugees in Lebanon: Employment Profile and Impact on Local labor Market,Preliminary Draft Survey Summary, International Labor Organization, August 2013; World Bank Report, 2013.

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[7] Assuming the influx of refugees is to stop in 2014.

d. <u>Inflation</u>

By definition, one of the most important economic indicators that reveal households' welfare is inflation. Inflation is concerned with the changes in living costs based on the volatility of prices of items in the basket of commodities and services consumed by households. After the Israeli and Lebanese war in 2006, the increase in inflation from -0.72% in 2005 to 5.57% in 2006 was mainly attributed to the limited supply of necessities such as food, oil, gasoline, fuel, and electricity. These components of the consumer price index (CPI) do not have close substitutes making the demand for such goods inelastic. For this reason, even when prices increase, the demand for such necessities remains almost the same, consequently causing aggregate changes in prices, thus inflation. In 2007, inflation slightly decreased to 4.06% to substantially increase to 10.76% in 2008 in face of several internal conflicts resulting in a large strike in downtown Beirut coupled with rise in oil and gas prices in the same year. Inflation then dropped in the following two consecutive years reaching 4.99% in 2011. Inflation rate rose again in 2012 due to the imposed increase in minimum wages and public sector salaries. Moreover, the Syrian conflict also exerted pressure on prices in Lebanon as a large influx of Syrian refugees freely invaded the country causing an increase in demand for indispensable products and a rise in rent and housing prices as a result of the demand shock in the real estate sector, taking into consideration the inelastic short-term housing supply. As the Central Administration and Statistics is responsible for the collection of data on inflation in Lebanon, inflation of main categories was extracted from their statistics. However, inflation rates in Lebanon are expected to be underestimated because the data on housing rent prices is not captured frequently.

Money Supply Growth and Inflation
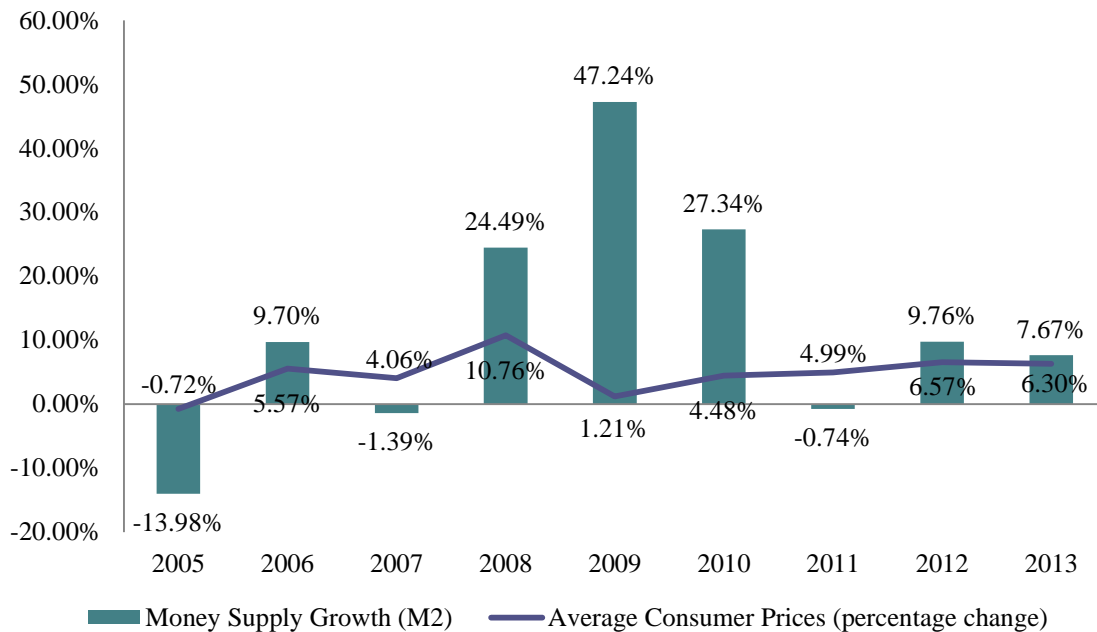
Fig.15. Lebanon's Money Supply Growth and Inflation Rate
Source: Banque Du Liban; IMF; World Economic Outlook

Figure 16 shows inflation of main categories. As the Syrian crisis escalated during 2011-2012, the huge influx of refugees have affected most significantly housing prices. Also, the increase in demand for education arising from the Syrian children refugees, exerted upward pressure on the cost of educational services in Lebanon as the Ministry of Education and Higher Education (MEHE) provided open access to refugees in its public school system. With the increase in demand on food items, it is expected that inflation rates for food and non-alcoholic beverages, to increase substantially. However, national inflation data do not reveal pressures on food prices. As the concentration of Syrian refugees is at bordering areas in Lebanon, it is most likely that demand and supply conditions of necessity food items, such as flour and wheat, to change, hence, exerting upward pressure on prices of staple food items particularly in bordering cities.

Inflation of Main Categories
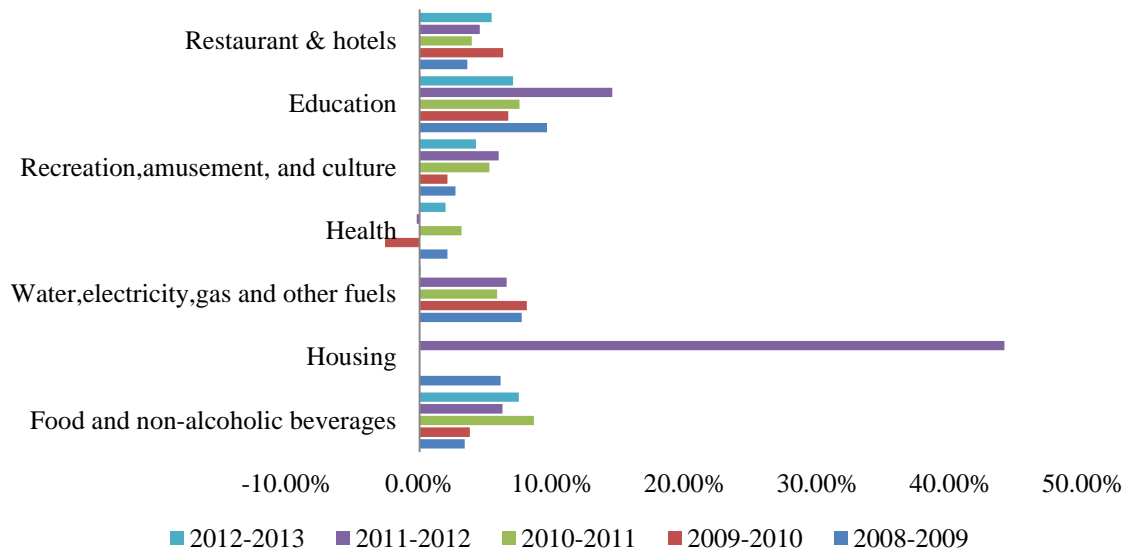
Fig.16. Lebanon's Inflation Rate of Main Categories
Source: Central Administration of Statistics (CAS).

e. Cleared and Returned Checks

The value of cleared checks in the banking sector reflects the ongoing business activities in an economy. It is an indicator of the economy's health. The value of cleared checks was increasing gradually from the year 2007 to 2011. It recorded an 88% increase in value from USD 38.3 billion in 2007 to USD 72.1 billion in 2011. The value of cleared checks did not substantially decrease in face of the escalation of the crisis in 2012 as it dropped by 1.5% from 2011 to 2012. Due to the lack of data on the value of cleared checks for the twelve months of 2013, a comparison between January to November 2012 and 2013 is shown below. During the first eleven months of 2013, the drop in foreign currency cleared checks was offset by an increase in local currency Lebanese pounds cleared checks resulting in a 1.6% year on year growth in the total value of cleared checks.

48

Value of Cleared Checks
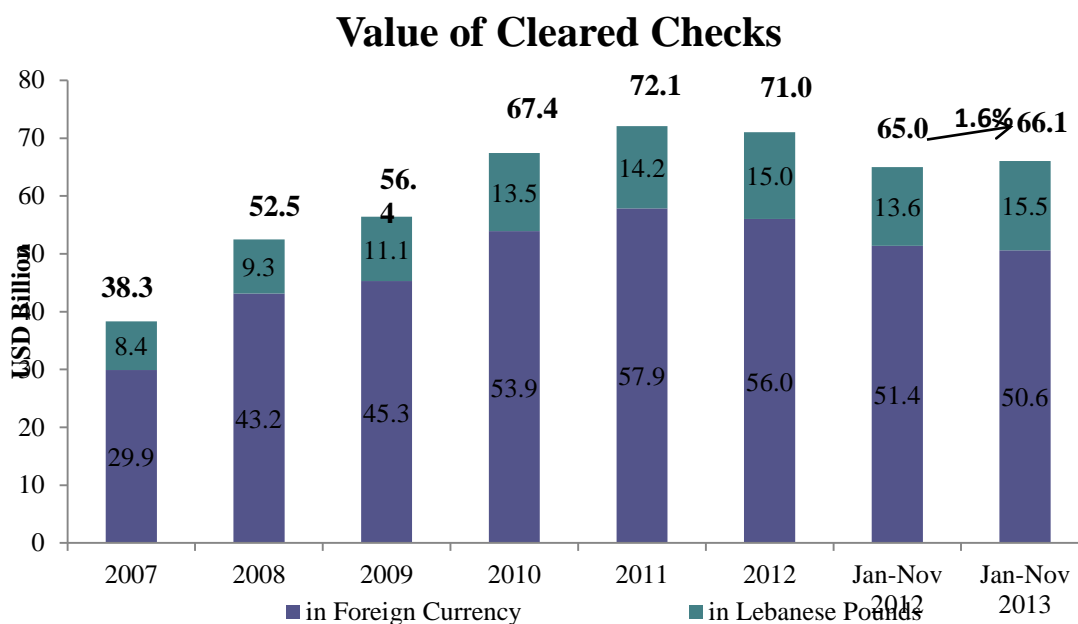
Fig.17. Lebanon's Value of Cleared Checks
Source: Bank Med, Lebanon Economic Outlook, 2014.

Further, the value of returned checks is also an important indicator reflecting the health of the overall economy and to what extent people's bank accounts are eroded. The value of returned checks recorded a 113% increase from the year 2007 to the year 2011. In the first eleven months of 2013, the value of returned checks increased by 2.0% from January to November 2012 (Figure 18).Attempting to analyze the value of returned checks as a proxy to the growth in business activities, consequently, economic growth, the rising trend in the value of returned checks since 2007 doesn't reflect a healthy economy.

f. Tourism

One of the key economic sectors contributing to the growth of Lebanon's economy is tourism. Lebanon's geographical location, moderate climate, cultural heritage, as well as its' unique night life has made it an attraction to many tourists

49

across the world.

Value of Returned Checks
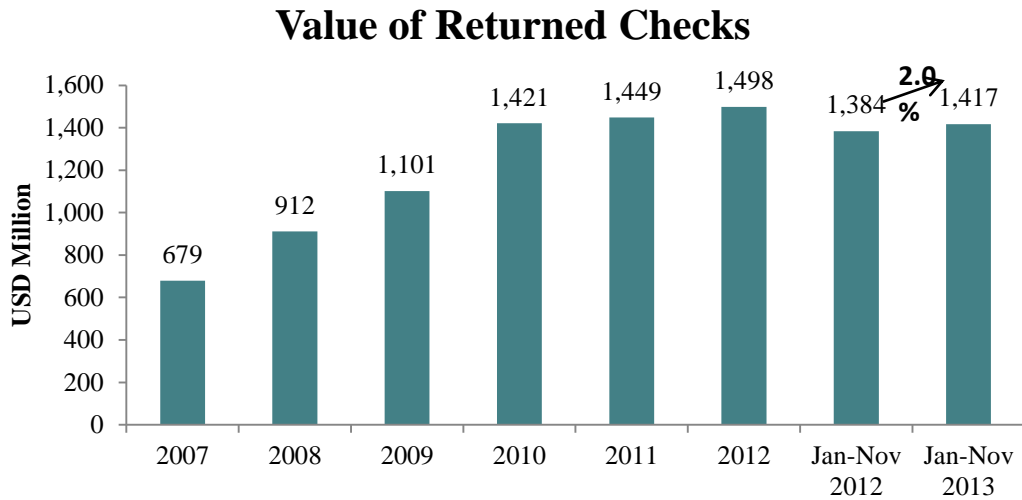
Fig.18. Lebanon's Value of Returned Checks
Source: Bank Med, Lebanon Economic Outlook, 2014.

Lebanon relies on the tourism sector as a pillar for its economic growth. However, the tourism sector has been subject to several shocks in face of internal and regional conflicts. Figure 19 displays the tourism shares of total exports in Lebanon for the period 2004-2011. The tourism shares have contracted in 2005 due to the insecurity that prevailed after the assassination of former Prime Minister Rafiq Hariri. It further contracted in 2006 after the war with Israel in summer of the same year, as summer is considered the peak of tourism season in Lebanon. Consequently, the tourism shares of total exports services have dropped from 58% in 2004 to 52% and 34% in 2005 and 2006, respectively. These shocks had long lasting impacts on the tourism shares till the year 2008. In the following two years, tourism had been revived in Lebanon increasing to 39% of total exports shares in the year 2010. However, upon the uprising of the Syrian crisis coupled with the regional turmoil in Arab countries, the security situation in Lebanon started to deteriorate and travel shares accounted for 27% of total exports services. It is worth noting that, besides the tourism services in Lebanon, the financial

services have large shares of total exports services in Lebanon. Due to the lack of recent quantitative data on the value of tourism shares of total exports services in 2012 and 2013, Figure 20 depicts the sharp decrease in the number of international visitors in recent years. After the escalation of the Syrian crisis in 2012 and the insecurity situation prevailing in Lebanon due to armed conflicts in Tripoli and Bekaa, and several kidnapping instances, several countries in the region have issued travel bans or restrictions on their citizens to visit Lebanon. The number of tourists decreased by 41.23% from 2010 to 2013, particularly, the number of Arab tourists who constitute around 32% of total tourists, fell by 12% in 2013. This dramatic decline is attributed to the impact of the Syrian spillover effects on Lebanon's key economic sector, tourism, in face of the lack of security and stability the crisis levied on Lebanon. Specifically, as the fighting intensified, the passage points for Arab tourists coming to Lebanon by land through Syria was blocked. Moreover, kidnapping cases, clashes, and violent instances, fueled by extremely divided Lebanese political parties over the state of the Syrian crisis unwelcomed many Arab tourists who visited Lebanon on yearly basis. Under this scenario, several countries across the region banned its citizens from visiting Lebanon.

Tourism Shares of Total Services Exports
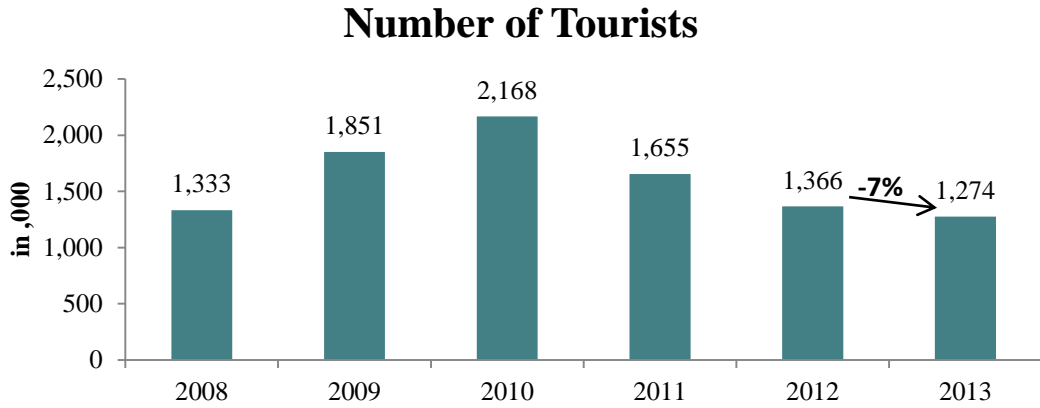
Number of Tourists

Fig.20. Lebanon's Number of Tourists' Arrivals
Source: Bank Med, Lebanon Economic Outlook, 2014

Furthermore, in a hotels benchmark survey done by Ernst and Young Middle East, the occupancy rate of four-star and five-star hotels in Lebanon fell by 4 percentage points between the first eleven months of 2012 and 2013. The hotel occupancy rate declined from 55% in the first eleven months of 2012 to 51% in the same period in 2013. Consequently, the average room rate have dropped by 12.5% between the first eleven months of 2012 and 2013 as the average room rate declined from USD 192 per room in 2012 to USD 168 per room in 2013.

Hotel Occupancy Rate & Average Room Rate
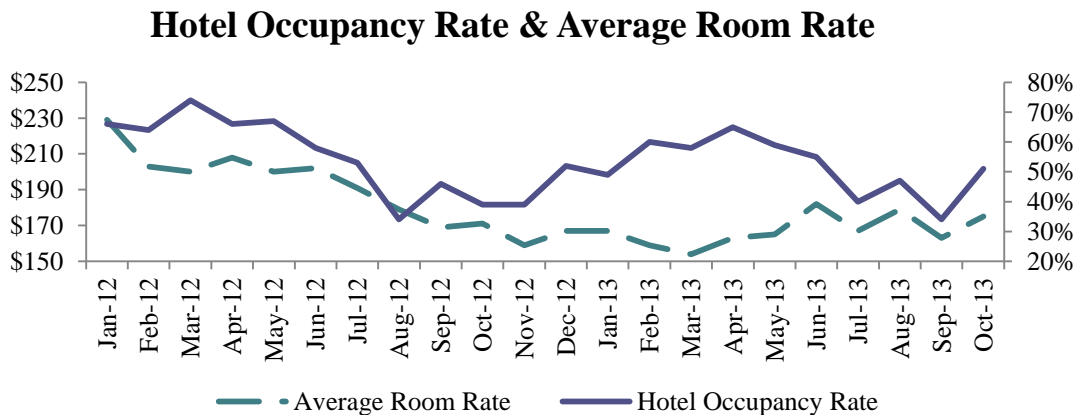
Fig.21. Lebanon's Hotel Occupancy and Average Room Rates
Source: Ernst and Young Middle East, Bank Med.

According to the World Bank report on the economic and social impact assessment of the Syrian crisis on Lebanon, 832,118 people had moved from Syria to Lebanon by July 2013. The tourism sector has partly catered for the refugees' housing demands. Refugees occupied rental apartments and non-luxury hotels, specifically in North Lebanon and Bekaa. The hotel occupancy rate as a result of the strained tourism sector in the North and Bekaa have dropped less severely than in Beirut as a result of the large influx of refugees which hit these regions(World Bank 2013).

g. <u>Real Estate</u>

Throughout the recent years, investments in Lebanon's real estate sector have proven to be a safe haven for Lebanese nationals and foreigners. Several economic and fundamental drivers, in Lebanon, have attracted billions of dollars in real estate investments, and consequently spurring economic growth. The rising flow of expatriates' remittances by an average of 18% over the last decade coupled with the crash of the Saudi stock market in 2006 followed by the propagation of the global financial crisis in 2007 have surged many Lebanese expatriates and foreigners (Arab and non- Arab) to transfer their funds to Lebanese banks as one of the most robust banking sectors in the region was that of Lebanon. Moreover, the rise in oil prices during that period lifted liquidity levels in the GCC region. Consequently, the availability of liquidity, Lebanon's "laissez- faire" economy, free foreign exchange market with full currency convertibility policies, banking secrecy laws, no restrictions on capital transfers, and the attractive tax system that imposes low fiscal charges, have made Lebanon an eye-catching country for businesses and investments, and induced the willingness of Lebanese residents and non-residents to invest in the real estate sector.

Furthermore, favorable laws that ease the legal limits on foreign ownership of real estate properties in Lebanon have been reinforced, a non-discriminatory legal framework that protects private property and promotes equal business rights among Lebanese and non-Lebanese, as well as investment promotion agreements between Lebanon's government and foreign countries' governments, have contributed to support and sponsor investments in Lebanon, specifically in the real estate sector. The higher demand on real estate investment accompanied with the scarcity of land and the rising construction costs exerted an upward pressure on real estate prices in Lebanon (BLOM invest 2010).

The demand on real estate in Lebanon over the period 2004 till 2006 was repressed after a series of political assassinations in 2005 followed by the Lebanese-Israeli war in 2006 resulting in an uncertain economic outlook. However, economic performance in Lebanon started booming again, especially after the Doha Accord[8] in the year 2008 whichpromoted political stability and therefore restored investor confidence in Lebanon[9].The real estate value of transactions substantially increased to USD 6.48 billion in 2008 up from USD 4.2 billion in 2007. Real estate transaction value peaked in 2010 accounting for USD 9.48 billion with a total number of real estate sales transactions of 94,320 in the same year up from 83,622 in 2009. In fact, the value of transactions increased by approximately 40% between 2009 and 2010. The rapid expansion in the real estate sector has resulted in a 41% increase in the number of sales transactions from the year 2007 till 2010.

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[8]The Doha Agreement was made in Qatar to end an 18- month long political crisis in Lebanon across all political parties and avoid an eventual civil war.

[9] FDI inflows have increased from USD 3.33 billion in 2007 to USD 4.33 billion in 2008 that explains the regained investor confidence in 2008.

Real Estate Value and Volume Transactions
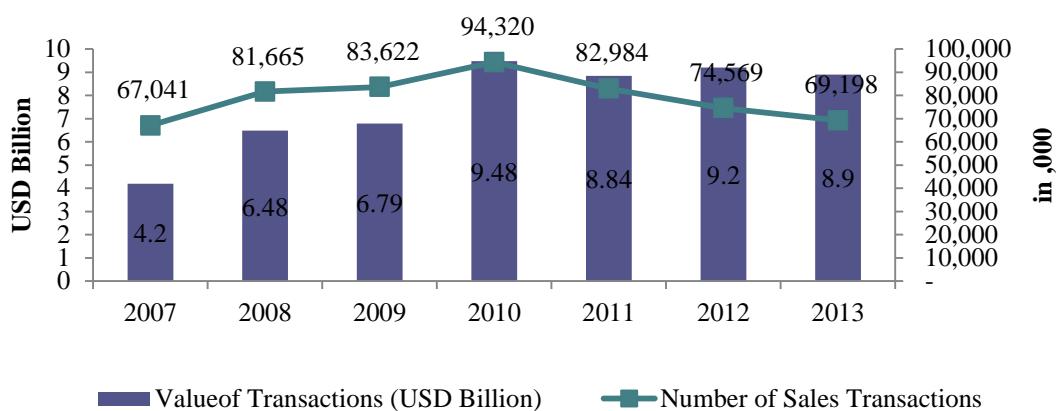
Fig.22. Lebanon's Real Estate Value and Volume Transactions
Source: Real Estate Registry, Bank Med, Lebanon Economic Outlook, 2014.

However, demand for real estate properties have decreased in the year 2011 amidst the collapse of the national unity government followed by a long period of governmental void coupled with a wave of revolutions in Arab countries, and the aggravated political and social in-stability arising from the Syrian crisis that took its toll on Lebanon's economy by the end of the year 2011. The falling trend in real estate value and volume transactions following the year 2011 has been attributed to loss in investor confidence as a result of the risk Lebanon faces in being pulled into the Syrian civil war. The number of sales transactions has dropped to 69,198 in 2013 down from 82,984 in 2011. However, as the Syrian crisis escalated, a large influx of refugees, specifically the upper middle and rich classes, have increased demand on real estate properties across Lebanese regions[10] resulting in 4% increase in the value of real estate transactions.

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[10] Syrians increased their demand of real estate across Lebanese regions and not Beirut since real estate prices in Beirut are extremely expensive and range from $2500/m^2 up to $7000/m^2.

Real Estate Sales to Foreigners
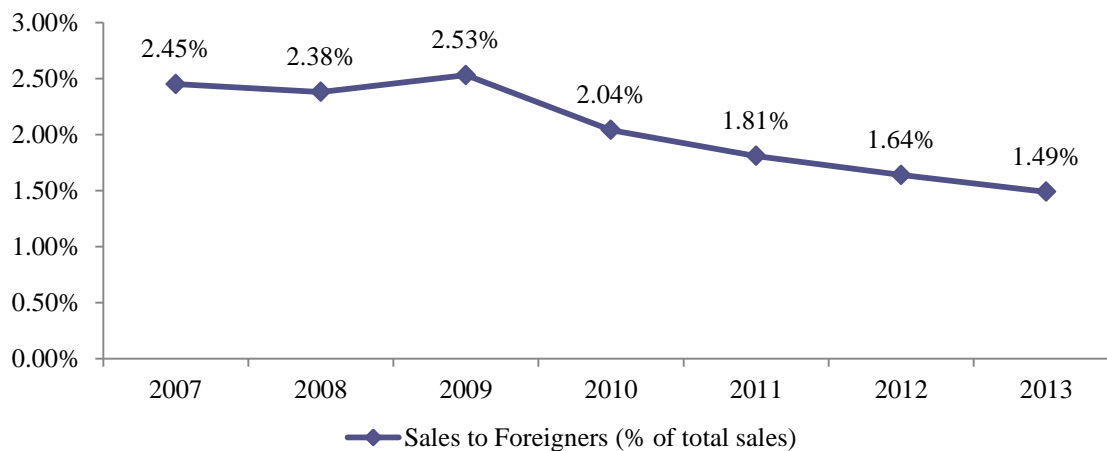
Fig.23. Lebanon's Real Estate Sales to Foreigners
Source: General Directorate of Land Registry and Cadastre (GDLRC), Credit Libanais Economic Research Unit.

Foreign investments in Lebanese real estate have also been declining as real estate prices soared over the years, as well as the presence of internal political disputes and tension that shook foreign investors' confidence in the country. Real estate sales to foreigners as percentage of total sales have dropped from 2.53% in 2009 to 1.49% by the end of 2013.

As the value and volume of real estate transactions reflect the demand level on real estate properties, Lebanon's registered construction permits are a proxy to the supply level of real estate. Construction permits have fluctuated over the last decade, booming in 2008 recording 16,024 sqm up from 9,038 sqm in 2009 and reaching 17,608 sqm in 2010, and declined thereafter reaching 12,925 sqm in 2013.

In face of economic downturns and political instability after the year 2010, the supply level of real estate adjusted to the falling demand level and construction permits, the main proxy to real estate construction projects have declined by 26.6% between the years 2010 and 2013.

Construction Permits
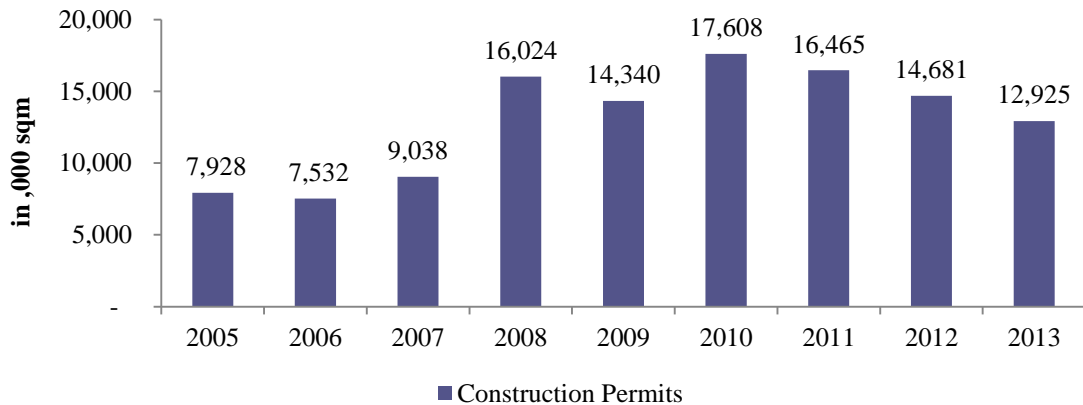
Fig.24. Lebanon's Construction Permits
Source: Order of Engineers, Bank Med, Lebanon Economic Outlook, 2014.

On the back of domestic and regional conflicts and security drifts, specifically emerging from the neighboring Syrian crisis, levied an overall sluggish investment climate in Lebanon. The fear of violence outbreak spilling over into Lebanon, which has already taken place in bordering regions, political and security tensions were spread across Lebanon provoking an unfavorable investment environment, and thus decreasing the appetite for real estate investments on the behalf of foreigners and nationals. Furthermore, it is worth noting that the decline in demand and supply levels of real estate investments is not fully attributed to the domestic and regional conflicts. In fact, real estate market prices were no longer undervalued. Real estate prices have accommodated to the international market benchmarks and significantly increased disengaging Lebanese residents' purchasing powers of real estate properties. Within this context, demand and supply levels started to reflect a new context to the Lebanese real estate sector (Bank Audi 2013).

Furthermore, the large influx of Syrian refugees seeking shelter estimated to be a million by the Lebanese government by the end of the year 2013 and projected by the

57

World Bank's calculation to be over 1.3 million comprising 32% of the Lebanese population, have increased the demand in the rental market, specifically in Lebanese regions bordering Syria, Bekaa and North Lebanon, exerting upward pressure on rental prices. The lack of recent data availability to assess the increase in rent prices restricts thorough trend prices analysis. However, given the increase in the magnitude of housing demand and the limited housing supply, rental prices are expected to be rising rapidly, particularly in Lebanese regions where the population increase have been the strongest, as the below figure depicts. Within this context, the substantial housing demand shock and increases in rents' prices[11] accompanied by an inelastic housing supply in face of the pre-crisis Lebanese population of 4.2 million followed by a million Syrian refugee inflows, Lebanese "residents complain that they have been priced out of their own housing market" (World Bank 2013).

Total Syrian Refugees by Lebanese Region
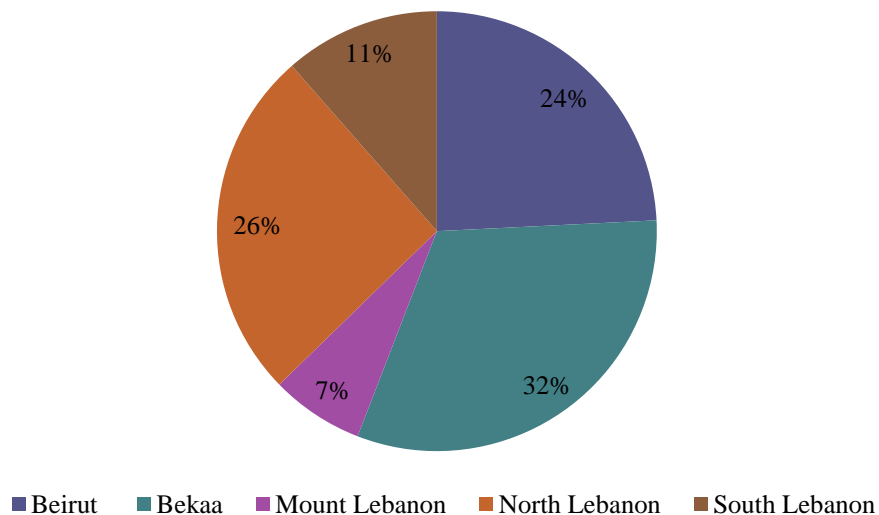
Fig.25. Syrian Refugees Distribution by Lebanese Region
Source: UNHCR.

[11] According to the World Bank's report on the economic and social impact assessment of the Syrian crisis on Lebanon, rent prices have skyrocketed as the Syrian crisis took its toll on Lebanon by the beginning of the year 2012.

2. External Sector

a. Trade Balance

Data on trade balances are of great importance in determining an economy's health as it is a component of a country's GDP. In Lebanon, exports have increased over the years prior to the Syrian Conflict. Lebanon witnessed a 35% increase in its exports from 2009 to 2011. However, since the uprising of the Syrian conflict in 2011, exports have decreased by almost 0.87% in 2012 and 7.9% in 2013. The Syrian conflict had a negative impact on the overall trade in Lebanon. According to the World Bank, "the deceleration of exports experienced during the last two years implied about USD2.8 billion of foreign exchange income foregone, that results from comparing actual export trends with the projected one, had the growth trend of 2000-2008 continued over the period 2011-2012. Similarly, the deceleration of imports implied consumers and firms foregoing foreign goods of the value of USD1.7 billion" (World Bank 2013). The disruptions in the demand and supply conditions of merchandise trade is reflected by the increase in Syrian demand for food products from Lebanon as a result of the destruction of major Syrian manufacturing bases and reduction in its agricultural outputs. Particularly, Lebanon's exports of food and beverage products to Syria have increased after the crisis. Exports of wheat flour to Syria have more than doubled from 2011 to 2012. In fact, as shown in the below figure, it increased by more than 300% reflecting the increase in demand on staple products such as wheat flour in Syria. Thus, it is shown that the transmission of external demand shocks has been a primary channel in disrupting trade.

Exports of Wheat Flour to Syria
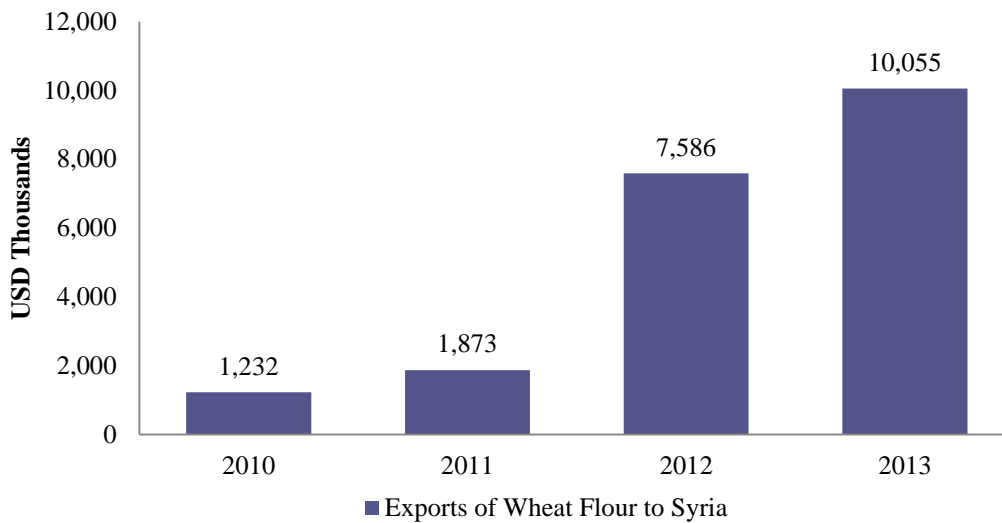
Fig.26. Lebanon's Exports of Wheat Flour to Syria
Source: Lebanese Customs, World Bank

Even though Lebanon witnessed a rising demand on mineral and non- mineral products as a result of the huge refugee influx into Lebanon's territories, imports have not increased substantially as the majority of imports come from the region and the rest of the world and not greatly through Syria. However, the decrease in Lebanon's exports is attributed to the disrupted Lebanese- Syrian trading routes as a result of the Syrian armed conflict as Lebanon's exports mainly transit through Syria to the region. According to the World Bank, more than 20% of Lebanon's total exports transit by land through Syria, to the Arab markets. This disruption will continue to negatively impact exports, and consequently lead to the widening of the already large deficit in Lebanon's merchandise trade. Economically, the disruption of the trading routes as a result of the acceleration of the Syrian conflict is equivalent to increases in tariffs barriers to trade as a result of increased trading costs. The year 2013 ended with an upward trend in foreign trade deficit since 2009. Trade deficit increased to USD 16,854million in 2013 from USD 6,741 million in 2009.

Trade & Current Account Balances
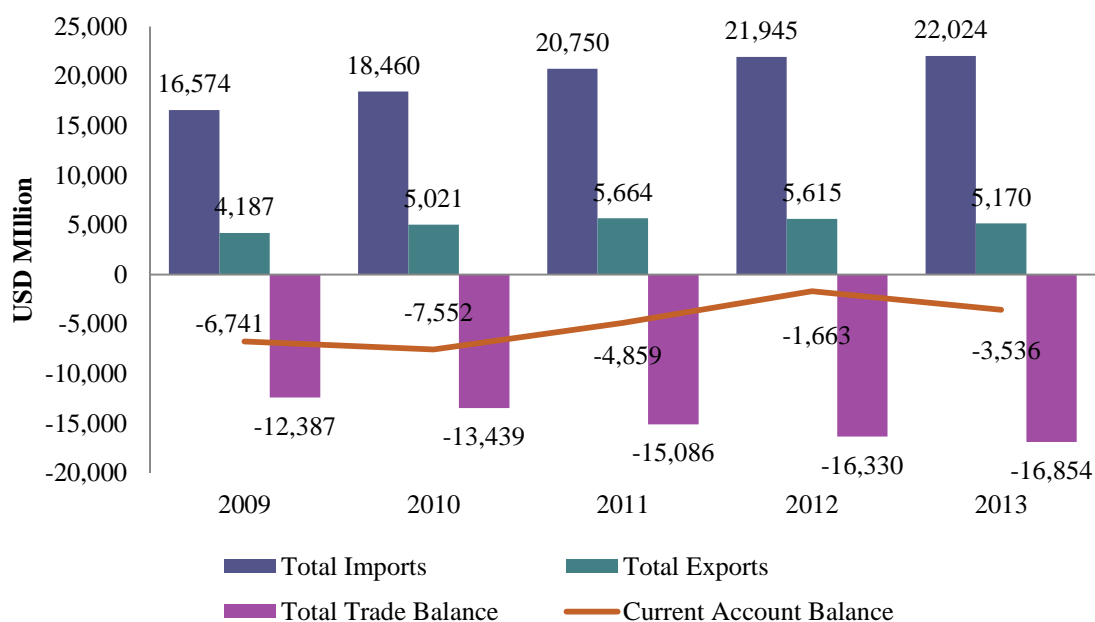
Fig.27. Lebanon's Trade and Current Account Balances
Source: Lebanese Customs, Economic Intelligence Units, Lebanon Country Report

The current account balance, as shown in Figure 27, recorded a decline in its deficit between the years 2009 to 2011, reaching minus USD 1,663 million in 2012. This is attributed to the increase in services balance, as well as the increase in primary and secondary income balances.[12] However, after the escalation of the crisis, the current account deficit increased again in 2013 attributed to the decrease in the above balances.

b. Balance of Payments

After analyzing the trade and the current account balances, the balance of payments (BOP) records all international transactions of a country. Lebanon has been experiencing surpluses in the balance of payments since 2007. However, after the evolution of the Syrian conflict, Lebanon recorded a deficit in the balance of payments

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[12] Refer to statistical Appendix I, 2.

of USD 1,996 million and USD 1,534 million in 2011 and 2012 respectively. The

deficit in the BOP is attributed to the narrowing of foreign direct investment (FDI)

inflows coupled with the rising trade deficits.

Balance of Payments
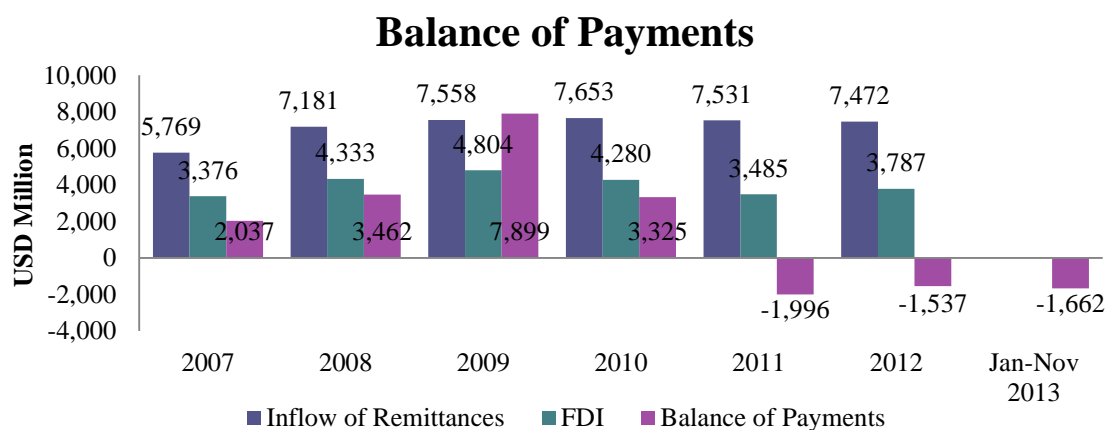
Fig.28. Lebanon's Balance of Payments
Source: Banque Du Liban, IMF

When the Syrian economy recovers, a variety of new exports opportunities for

Lebanon will be offered. The external demand for Lebanese exports would be revived,

specifically for the construction sector, as Syria opts to reconstruct its infrastructure and

buildings when the crisis ends. Moreover, subsidiaries and associates of Lebanese banks

operating in Syria would play a vital role in financing the country's reconstruction.

3. Banking Sector

In recent years, Lebanese banks have long been able to withstand a series of

internal and external shocks exerted on the economy. With the current regional and

political instability and its underlying adverse impact on several economic sectors,

Lebanon's banking sector has maintained resilience in face of the levied

challenges.Banque du Liban (BDL), the central bank of Lebanon has proved to be the

solid pillar in Lebanon's economy with its continued commitment to maintain exchange

rate stability, thus achieving financial and price stability. BDL's strategy of preserving a

high stock of foreign currencies and gold reserves has proven to be the best

precautionary measure in dealing with any shock that confronted the economy. BDL is

currently holding more than USD 72.5 billion in foreign currency assets, excluding gold

reserves which are the second largest within the Middle East and North Africa's

(MENA) region. As a result of the decreasing regional demand on the key economic

sectors in the economy, such as the real estate and tourism sectors, BDL has launched a

stimulus package in early 2012, extending to banks LBP 1.47 billion[13] at 1% interest

rate as banks must lend this fund at reduced rates to support key sectors in the economy

such as housing, tourism, education, and innovative projects to help in stimulating

economic growth. BDL primarily subsidizes tourism, industrial, and agricultural

sectors.

BDL Subsidized Loans by Sector till June 2012

Agriculture 8%

Industry 52%

Tourism 40%

BDL Subsidized Loans by Sector till June 2013

Agriculture 11%

Industry 54%

Tourism 35%
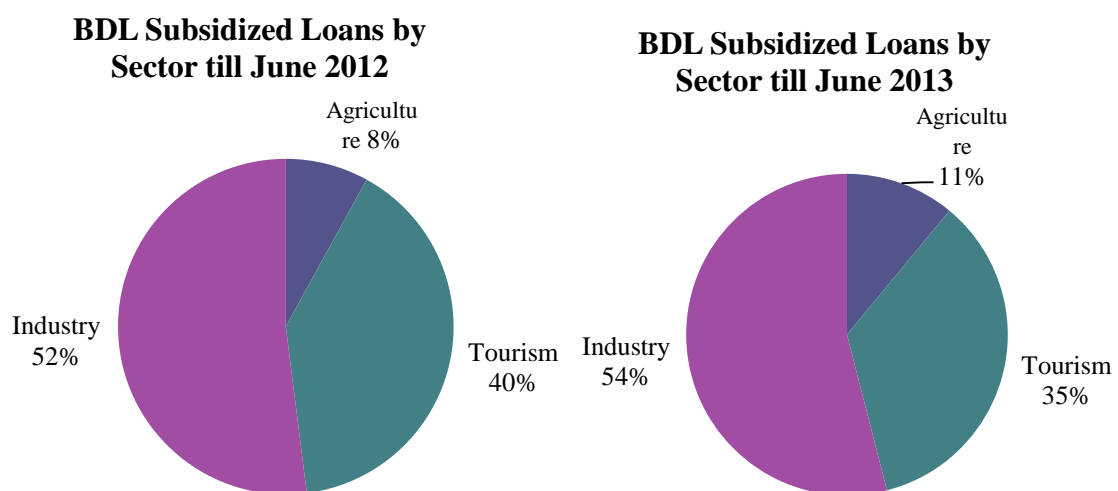
Fig.29. BDL Subsidized Loans by Sector – 2012 and 2013

[13] LBP 1.47 billion is approximately USD 980,000.

a. <u>Assets, Deposits, and Loans</u>

The solidarity of Lebanese banks has been a key in reporting a healthy performance in light of the current crisis. The table 1 depicts the three key components of the commercial banks' consolidated balance sheet. Even though there was a relatively slow down in the banking activity after the start of the crisis in the year 2011, which contributed to the decline in banks' total assets, private sector deposits, and loans by 3, 4, and 12 percentage points respectively, the Lebanese banking sector was able to maintain its activity. According to the consolidated balance sheet of commercial banks for November 2013, total assets and private sector loans have recorded an 8% and 10% increasefrom the year 2012 to 2013 to reach USD 161 billion and USD 41.3 billion, respectively. As for the liabilities side, total private sector deposits grew by 8% year-on-year reaching USD 133.2 billion in November 2013.

Table 1. Lebanon's Banking Sector: Assets, Deposits, and Loans

(in USD billion)	2009	2010	2011	2012	Nov-12	Nov-13
Total Assets	115.3	128.9	140.6	151.9	150.4	161.9
% Change		12%	9%	8%		8%
Private Sector Deposits	95.8	107.2	115.7	125.0	123.1	133.2
% Change		12%	8%	8%		8%
Private Sector Loans	24.3	30.3	34.2	37.8	37.6	41.3
% Change		25%	13%	11%		10%

Source: Banque Du Liban, Association of Banks in Lebanon, Bank Med, 2014.

b. <u>Capital Adequacy and Liquidity Ratios</u>

Lebanese banks have maintained the flow of credit within the economy as they operate with solid capital ratios and high liquidity levels which ensure financial

stability. According to Basel III capital requirements of 12%, Lebanese banks have exceeded the ceiling in many years recording a capital adequacy ratio of 12.9% in 2012 up from 11.7% in 2011. As for the Tier 1 capital to assets ratio, it rose year after year since 2009 reaching 8.7% in November 2013. This proves that Lebanese banks enjoy a solid capital base which makes them fully absorb any economic repercussion as a result of the Syrian crisis. Over the past five years, banks in Lebanon were able to have a stable private sector deposit base as part of their liabilities during which private sector deposits are the main driving force behind Lebanon's banking activities, and recorded 82.3% of total liabilities. Loans to deposits ratio, which ensures financial flexibility and liquidity within the economy, recorded a low ratio of 31% in November 2013.

Table 2. Lebanon's Banking Sector: Capital Adequacy and Liquidity Ratios

Banking Sector Ratios	2009	2010	2011	2012	Nov-13
Capital Adequacy Ratio	12.8%	13.1%	11.7%	12.9%	
Tier I Capital/ Assets	6.9%	7.2%	7.6%	8.3%	8.7%
Private Sector Deposits/Liabilities	83.1%	83.2%	82.3%	82.3%	82.3%
Loans/ Deposits	25.3%	28.3%	29.6%	30.3%	31.0%

*Source:*Banque Du Liban, Association of Banks in Lebanon, Bank Med, 2014.

c. Asset Quality Ratios

In regard to asset quality, Lebanese banks' assets remained tough despite the economic downturn. Banks have conservative lending policies coupled with strict central bank regulations. Gross non-performing loans (NPL) to total loans has been declining since 2009 but slightly increased from 2011 to 2012 from 6.9% to 7.0%. However, loan loss reserves on non-performing loans to non- performing loans remained high over the past four years and recorded 79.5% in 2012. This is attributed to

the fact that banks in Lebanon had sufficient provisions to limit any credit default as a result of the worsening economic conditions.

Table 3. Lebanon's Banking Sector: Asset Quality Ratios

Banking Sector Ratios	2009	2010	2011	2012
Gross Non-Performing Loans (NPL)/ Total loans	9.5%	7.3%	6.9%	7.0%
Loan Loss Reserves on NPLs/NPLs	88.8%	83.2%	81.8%	79.5%

*Source:*Banque Du Liban, Association of Banks in Lebanon, Bank Med, 2014

Despite the solidity of the banking sector in Lebanon, Lebanese banks' ratings have been revised down as a result of several political clashes and security instability prevailing in the country. Even though Lebanese banks have maintained a strong and efficient banking activity, with sound financial ratios concerning capital adequacy, liquidity, and doubtful loans coverage, a local bank cannot have a rating that is higher than its country of operation as there isn't any mitigation for risk within that geographical disposition(Blom 2013).S&P lowered long term foreign and local currency ratings on Lebanon from "B" to "B-" with a negative outlook (Bank Med 2014). This downgrade is attributed to the escalated unrest in neighboring Syria and the risk Lebanon faces with the transfer of the Syrian war onto Lebanon's territories, and its negative impact on Lebanon's macroeconomic fundamentals. The rating agency Fitch has also changed the sovereign foreign currency long term credit rating to negative and Moody's had a notion of "B1" with a negative economic outlook. The banking sector witnesses this downgrading as a result of the ongoing clashes and bombings on its territories attributed in part to the Syrian civil war as several clashes took place in

bordering regions, such as the North and Bekaa, exerting more pressure on government's rising debt costs as a result of the downgrade.

4. Public Sector

a. <u>Fiscal Balance</u>

Lebanon has long been suffering from weak public finances with fluctuating budget deficits across the years. Lebanon's budget deficit have substantially increased by 63% between 2005 and 2006, in face of several shocks that hit the country and exerted pressure on government's expenditures. However, Lebanon was able to narrow its budget deficit by 16% in 2007 by an increase in total revenues of 26% from -1.37% in 2006. To a certain extent, public finances were able to balance for the years 2008 and 2009 with a deficit increasing by 1% in 2009.

Table 4. Lebanon's Fiscal Balance

(in USD million)	2005	2006	2007	2008	2009	2010	2011	2012	Jan-Oct 2012	Jan-Oct 2013
Total Revenues	4,656	4,592	5,804	7,000	8,428	8,414	9,334	9,396	8,097	7,920
Growth Rate		-1.37%	26%	21%	20%	-0.2%	11%	1%		-2%
Total Expenditures	5201	6288	8,350	9,922	11,388	11,308	11,675	13,321	10,773	11,439
Growth Rate		21%	33%	19%	15%	-1%	3%	14%		6%
Total Balance	-1,865	-3,042	-2,546	-2,921	-2,960	-2,894	-2,341	-3,925	-2,676	-3,519
Growth Rate		63%	-16%	15%	1%	-2%	-19%	68%		32%
Primary Balance	491	-4.494	731	597	1,078	1,231	1,661	-110	434	-313
Growth Rate		-101%	-163%	-18%	80%	14%	35%	-107%		-172%

Source: Ministry of Finance

Even though the government revenues declined by 0.2% in 2010, government

expenditure declined by 1% to improve the total budget balance and decrease the deficit by 2%. In 2011, revenues grew by 11% and expenditures only expanded by 3% maintaining the positive trend of a sustainable budget deficit during which it narrowed by 19%. However, as soon as the Syrian crisis took its toll on Lebanon's economy in 2012 with a large influx of refugees fleeing into Lebanon by that year, Lebanon's public finances have again been strained in face of the external shock during which the total budget deficit widened in 2012 by 68% from 2011. Total revenues in October 2013 recorded approximately a decline of 2.2% and the decline is attributed to two factors. First, the additional decline in tourists' number and thus the decline in potential higher revenues from the tourism sector contributed to the decline in revenues. Second, during 2013, telecommunication revenues declined by 15% which further pressured total government revenues. In regard to the government expenditure, it increased by 6.2% by October 2013 in face of the large social and health needs arising from the worsening status of the refugees. According to the World Bank's report on the Economic and Social Impact Assessment of the Syrian crisis on Lebanon, it is estimated for the period 2012- 2014 that the conflict would further depress government revenue collection by USD 1.5 million and increase government expenditure by USD 1.1 billion due to the rise demand for public services which contributed to a decline in the quality of public services delivery. The World Bank estimates the total fiscal impact of the Syrian crisis to be USD 2.6 billion and stabilization needs to restore the access to and quality of public services.

Fiscal Deficit
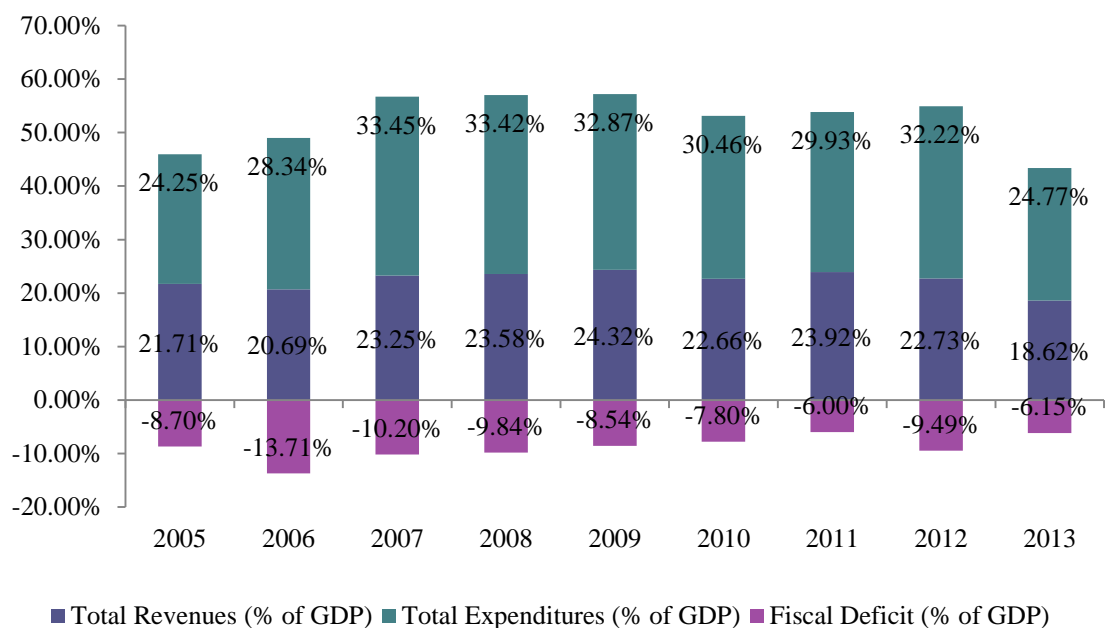
Fig.30. Lebanon's Fiscal Deficit as Percentage of GDP
Source: International Monetary Fund, World Economic Outlook Database

b. Public Debt

Since 2005, the fiscal deficit accounted for an average of -8.27% of GDP.

Fiscal deficit increased from 2011 to 2012 and 2013 from -6% to -9.49% and -6.15%

respectively. The resulting lower economic growth and wider fiscal deficits in the recent

years 2012 and 2013 have hindered Lebanon's progress of the decreasing trend in its

debt-to-GDP ratio since 2006. Lebanon's debt to GDP ratio decreased from 168% in

2005 to 137% in 2011. However, rose again to 140% and 143% in 2012 and 2013,

respectively.

Public Debt
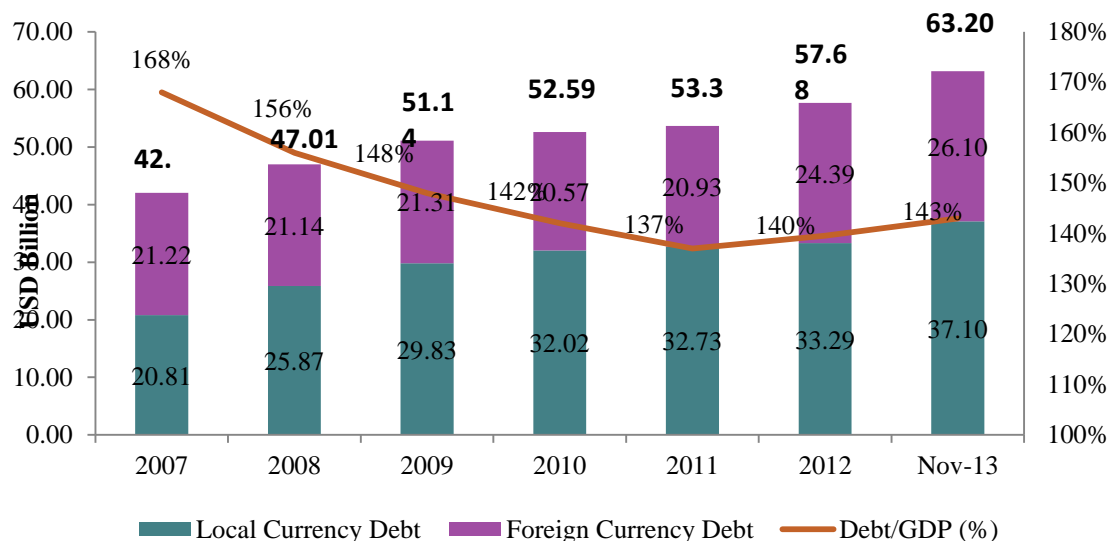
Fig.31. Lebanon's Public Debt
Source: Ministry of Finance

D. Cross Border Macroeconomic Analysis: Jordan and Turkey

Besides Lebanon, the Syrian conflict exerts several economic spillover effects to its neighboring countries, specifically Jordan and Turkey. Since the start of the crisis, Syrianrefugees have fled into Jordan and Turkey seeking help and shelter. According to the UNHCR estimations, Jordan and Turkey's registered refugees on its territories are 613,921 and 624,248 respectively. Syria's neighboring countries hosting such a large inflow of refugees have had several adverse impacts on the hosting economies with ranging degrees of negative spillover effects across Jordan and Turkey. The overall regional instability and political tension arising from the escalated Syrian conflict have posed major threats to its neighboring countries in facing the risk of the transfer of the Syrian civil war on its territories taking into consideration the large flow of the Syrian refugees. On one hand, the Syrian crisis had impacted several bordering regions between Turkey and Syria, disrupting demand and supply conditions, and negatively

70

impacting Turkey's external sector. On the other hand, the Syrian crisis has caused a significant negative shock on Jordan's economy, which already experienced difficult macroeconomic and fiscal conditions, resulting in a continued slowdown in economic growth. The following two sections attempt to analyze the macroeconomic performance of Jordan and Turkey.

1. *Spillover Effects of the Syrian Crisison Jordan's Economy*

a. Real GDP Growth and Investment Share of GDP

Jordan's economy grew at an average annual rate of 5.30% during the period 2007-2013. The year 2007 witnessed a high real GDP growth of 8.1%. However, Jordan was affected by the global financial crisis in 2008 during which the economy slowed down to 5.48% in 2009. The fall in GDP was mainly attributed to the drop in investment levels in the Jordanian economy. In fact, the investment share of GDP decreased from 30.39% in 2007 to 24.44% in 2009. By 2010, Jordan witnessed a continued decline in economic growth reaching 2.31%.

With the regional turmoil in Arab countries and the recent escalation of the Syrian civil war, Jordan's already weak economy has maintained the trend in economic slowdown, where real GDP slightly grew from 2.31% in 2010 to 2.59%, 2.8%, and 3.25% in 2011, 2012, 2013, respectively. This reflects the dampening effect of falling domestic spending and reduced foreign investment. The Syrian crisis has contributed in part to delay the recovery of the Jordanian economy. "According to the Governor of the Central Bank of Jordan, the Syrian crisis adversely impacted the economy directly and indirectly and thwarted GDP growth by at least 2% in 2013, undermining in effect the impact that better control of budget spending, greater confidence in the local economy, slight growth in tourism and remittances revenues as well as the international support

through large foreign grants could have had on the economy" (United Nations Report 2013).

Real GDP and Investment Share
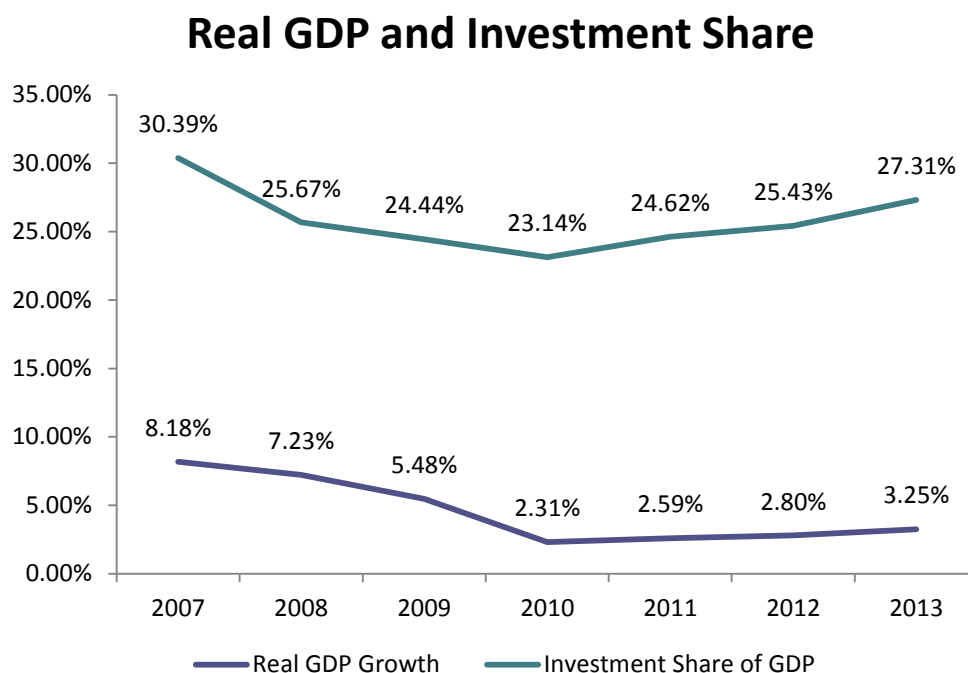
Fig.32. Jordan's Real GDP Growth and Investment Share of GDP
Source: International Monetary Fund, World Economic Outlook Database, Economic Intelligence Units, Jordan's Country Report.

A deeper look at the constituents of Jordan's income, it can be observed that the economy's main source of income is government services which constituted 20.4% of GDP in 2012. Furthermore, Jordan's growth relies heavily on finance and real estate services, manufacturing, as well as restaurants and hotels which constitute 17.5%, 16.5%, and 9.4% of GDP, respectively.

GDP Breakdown by Economic Activity (2012)
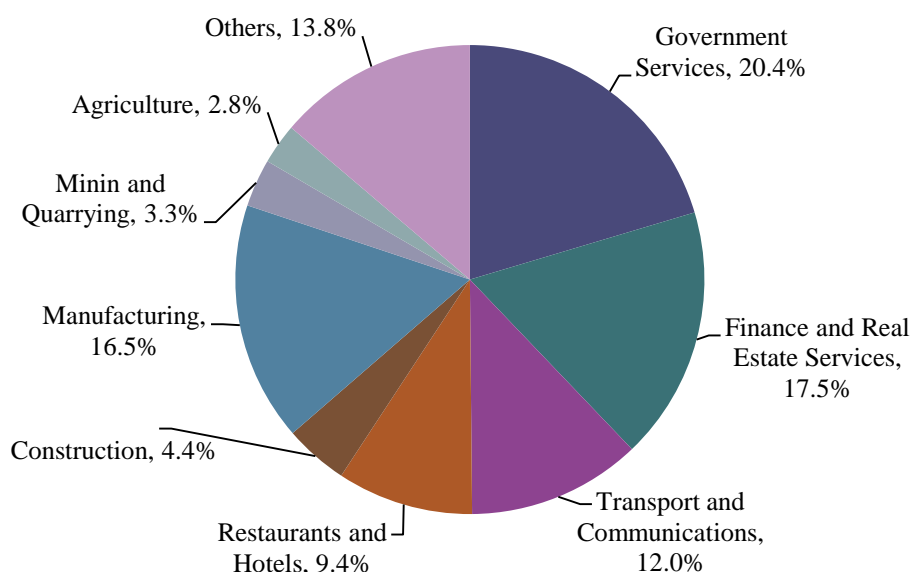
Fig.33. Jordan's GDP Breakdown by Economic Activity
Source: Central Bank of Jordan

2. Unemployment

The overall unemployment rate in Jordan stood at an average of 12.65% for the period 2009-2013. In 2011, the level of unemployment slightly rose to 12.88% to slightly decline thereafter in 2012 to 12.15% as a result of a "slight recovery in labor-intensive sectors coupled with a lower female unemployment rate." (Jordan Economic Monitor, 2013) However, the year 2013 witnessed the highest unemployment rate since 2009 of 12.6%. In fact, the unemployment rate increased to its highest level since 2010, in the third quarter of 2013 to 14% as estimated by the Department of Statistics of Jordan. It is important to note that, as shown in the below graph, the unemployment rate for women is more than twice than that of males and has been rising at an increasing rate since 2010. This is attributed to the fact that females in Jordan have the lowest labor participation rates in the region making them more vulnerable than men, regarding employment. Thus, the Syrian crisis has mostly affected unemployment rates of women

with unemployment rate rising from 21.27% in 2011 to 23.23% in 2013. Men's

unemployment rate has already risen in 2013 recording 13.13% up from 12.05%.

Unemployment in Lebanon has risen by 27.9% from 2010 to 2013 while that of

Jordan increased by 0.96% over the same period, rendering a larger effect of the Syrian

crisis on Lebanon's total unemployment status.

Fig.34. Jordan's Unemployment Rate
Source: Jordan Department of Statistics, Economic Intelligence Units, Jordan Country
Report.

3. Inflation

Inflation in Jordan has been volatile between 2007 and 2010 as a result of

volatility in money supply growth14. Money Supply grew by 17.3% in 2008 to decline

to 9.3% in 2009 and rise again by 11.5% in 2010. This is mainly attributed to domestic

factors including the inconsistent growth of money supply (measured by M2), along

with external factors including the fluctuation in commodities prices, specifically oil

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[14] Money Supply Growth is measured by M2 broad money

and food prices.

As money supply growth peaked in 2008, inflation rate recorded its peak level of 13.94%, which is mainly attributed to food price inflation in the same year of 18.37%, the highest rate among other categories. Nevertheless, the inflation rate plunged to -0.67% in 2009, as a direct consequence of strengthening US dollar and falling international oil and food prices during that year.

Money Supply Growth and Inflation
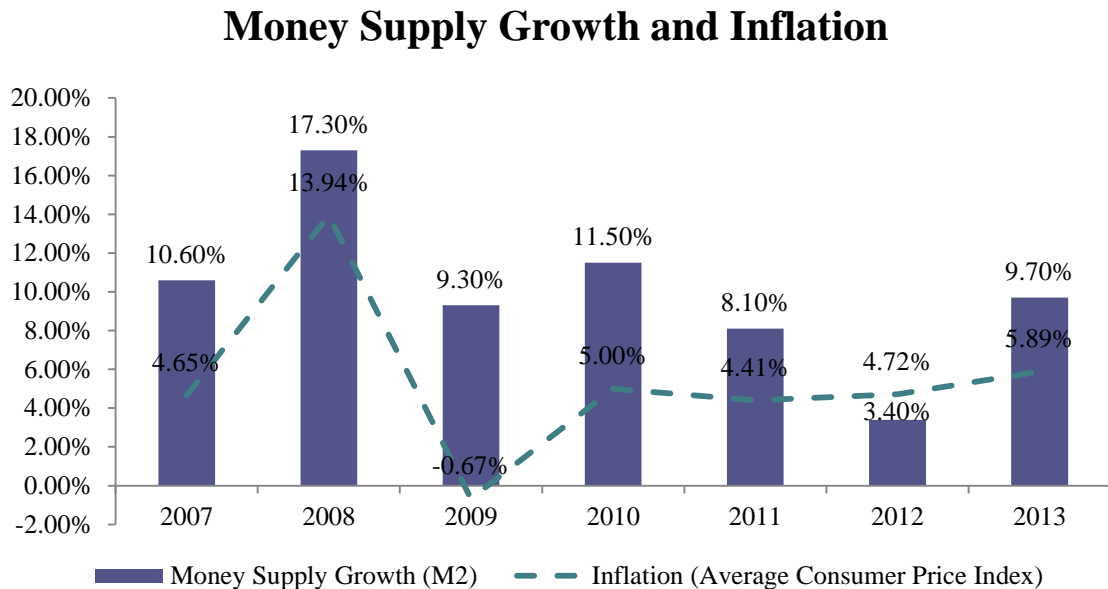
Fig.35. Jordan's Money Supply Growth and Inflation Rates
Source: Jordan Department of Statistics, Economic Intelligence Units, Jordan Country Report.

However, consumer price inflation soon recovered to its previously witnessed high levels where it reached 5% in 2010, as the commodity prices and currency trends reversed. With the aim to tighten inflation, the Central Bank of Jordan pursued a tighter monetary policy in 2012, where the growth in money supply fell from 8.1% in 2011 to 3.4% in 2012. Yet, consumer price inflation rose from 4.41% in 2011 to 4.72% and

5.6% in 2012 and 2013, respectively. The rise in inflation rate was driven by the increased demand on food items, goods and services, and housing, as a result of the large inflow of Syrian refugees during which around 80% of refugees settle among Jordanians in urban areas, and the remaining 20% onlylive in camps made by the government[15], during which housing prices soared in 2013 recording a 7.7% inflation rate up from 3.49% in 2012.

Inflation Rate by Category
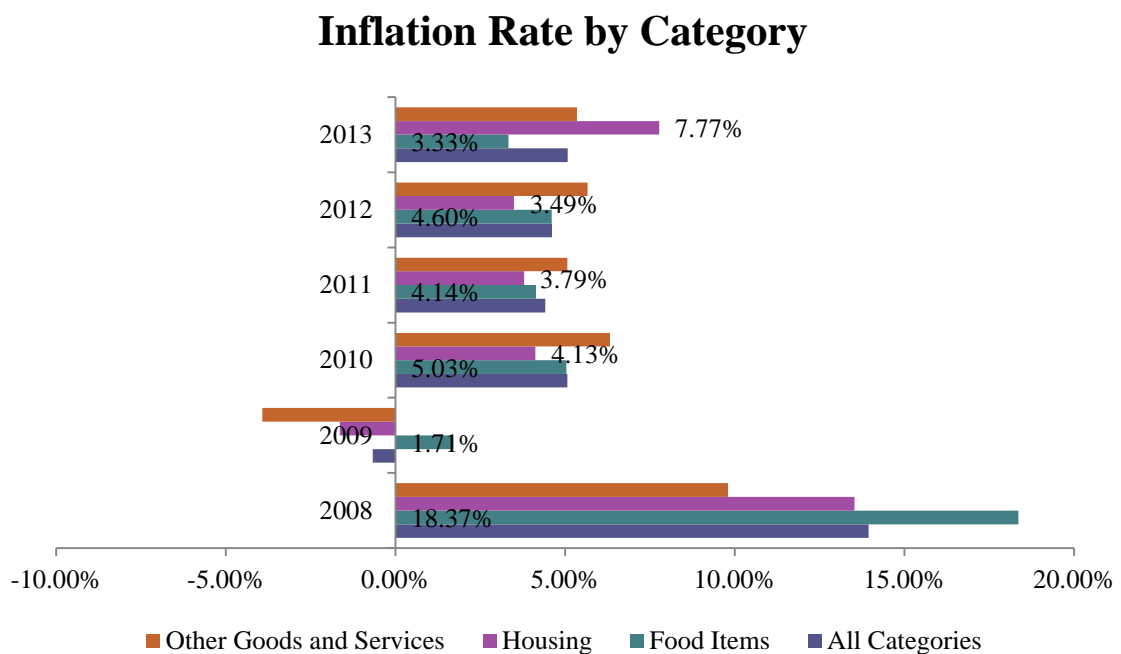
Fig.36. Jordan's Inflation Rate by Category
Source: Jordan Department of Statistics, Economic Intelligence Units, Jordan Country Report.

4. Tourism

The tourism sectorconstitutes one of the main pillars of the Jordanian economy and the largest employer in the economy. The period 2007-2009 witnessed relatively

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[15]20% of refugees live in camps according to "Solidarity and Burden Sharing" UNHCR, Sep. 2013.

lower tourist arrivals, as compared to previous years, reaching 6.8 million tourists in 2009 after peaking in the year 2006 with 7.2 million tourists. However, the year 2010 was a stellar year for tourism where tourist arrivals peaked at 7.81 million tourists. The high number of tourists did not last long, for each of 2011 and 2012 saw a reduction in arrivals to 6.37 million tourists and 5.84 million tourists in 2011 and 2012, respectively. The depressed tourism sector comes as a direct result of the social unrest and regional insecurity from the Arab Spring and the escalation of the Syrian crisis during these two years.According to recent data for the first ten months of 2013, the number of tourists visiting Jordan dropped by 14% when compared to the same period in 2012. Further, the number of Arab, American, and European Union tourists decreased by 12.45%, 5.4%, and 8.8%, respectively during the first ten months of 2012 and 2013. Such drop in Arab tourists is attributed to the impact of the Syrian crisis on tourism to Syria and Lebanon via Jordan and thus imposing on Jordon a loss of transit tourism. "The number of US and EU visitors to Jordan may have decreased because of a heightened sense of insecurity in the region. It is possible that with a protracted crisis and a potential escalation of violence in Syria, international tourists will continue to steer away from the region, including Jordan, resulting in additional economic losses and lower revenues" (United Nations 2013).

Over the period 2010-2013, tourists' arrivals dropped by 41.23% and 40.5% for Lebanon and Jordan, respectively. Therefore, it is safely concluded that the tourism sector in both countries has been severely affected from the Syrian crisis spill-over effects.

Number of Tourists' Arrivals
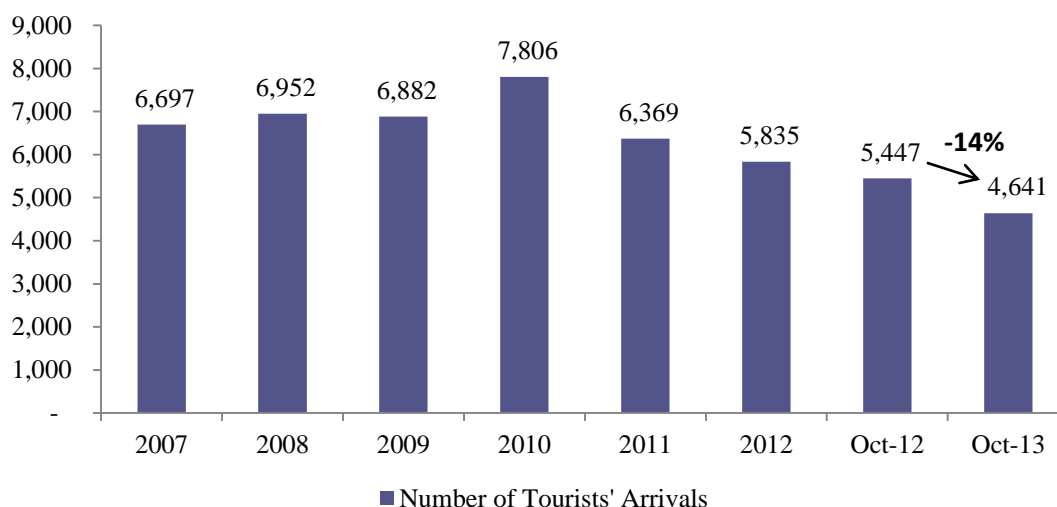
Fig.37. Jordan's Number of Tourists' Arrivals
Source: Central Bank of Jordan.

5. *Real Estate*

Jordan is considered as one of the highly urbanized countries in the region with an 82.6% urbanization rate in 2012. Mafraq and Irbid governorates have witnessed the highest influx of refugees, given their geographical proximity to the Syrian borders, and account for 45% and 21% of their pre-crisis population levels. The concentration of refugees is taking place in the urban centers of the two governorates, during which they provide by their urban nature, better job and accommodation options when compared to rural areas. According to the Jordanian government's estimates, the influx of refugees was estimated to be 128% of the Jordanian population in Mafraq city16 rendering it as the largest host of refugees. The large inflow of refugees of more than 613,921 Syrian as estimated by the UNHCR in October 2013, translates into a massive immediate demand for housing. It is important to note that the housing demand by Jordanians was estimated to be an average of 32,000 units before the crisis where supply in the market

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[16]With an inflow of 90,000 Syrians to 70,050 Jordanians in Mafraq city.

was estimated to be 40,000 units of which it constituted an 18% of vacant housing stock units. However, the need for housing by refugees is estimated to be over 86,000 housing units, besides an estimated annual average demand of 33,000 units by Jordanians. This surge in demand for housing outweighs the existing supply and thus imposes high pressure on housing prices. Given that the pre-crisis housing supply did not coincide with the demand, specifically for low income bracket groups, the underlying impact of the increase in housing prices would increase the median expenditure on housing per household from 20% to 35.3%[17]. For this reason, the Syrian crisis would severely impact the availability of affordable housing for low income groups among both Jordanians and Syrians, "during which the supply of housing in Jordan was already not meeting the needs of the lower income groups" (United Nations 2013).

The most practical solution in the real estate sector was rental housing options as the vacant housing stock has been almost fully occupied. The rising demand on rental housing options and the un-equivalent supply have caused rental prices to inflate, and as a result pricing lower income Jordanian groups and poor Syrian refugees out of the market.

Due to the lack of published data and statistics over the increase in rental housing prices, the analysis relies on anecdotal evidence. Such evidence implies 100%-200% increase in rental prices compared to pre-crisis levels. The distortion in demand and supply levels as a direct result of the crisis, and the underlying soaring rental prices have caused many Jordanian families to return to their villages and rent their own apartments to Syrian refugees taking advantage of the lucrative rental prices. Moreover, in this context, some landlords have subdivided their housing units by adding more than

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[17]Based on the Department of Statistics in Jordan "Housing expenditures and Income Survey 2008-2009.

one kitchen or bathroom without the necessary permits. Also, they illegally transformed many basements, garages, and storage places into small apartments (United Nations 2013). It has also been noted that in Irbid city, around 70,000 refugees are concentrated close to Yarmouk University where students' rental housing options have been replaced by Syrian refugees, who pay higher prices ranging between USD 282 and USD 423.[18]

Finally, as rental prices inflate and reach more than 50% many Jordanians' income and in situations where refugees' savings have been exhausted, many Syrian refugees have resorted to sharing rental housing with each other creating overcrowding. In this context, if overcrowding prolonged, as the Syrian civil war continues, is expected to increase social tensions and elevate health problems affecting both the refugees and Jordanian citizens.

6. Exchange Rate and Foreign Reserves

The official currency of Jordan is the Jordan Dinar (JD), which is split into 1,000 Fils. Jordan currently upholds a unitary exchange rate system. The Jordanian Dinar is officially fixed to the Special Drawing Rights (SDR), but has been in practice pegged to US Dollar at a rate of 0.709 Jordanian Dinar to 1 US Dollar since the year 1995.

Since Jordan maintains a fixed exchange regime, then the first line of defense the Central Bank has over the currency is its official foreign reserves. Over the period extending from the year 2007 to the year 2010, the Central Bank of Jordan succeeded at increasing its accumulated foreign reserves from USD 6,871 million in 2007 to USD 12,241 million in 2010. Hence, foreign reserves covered 48.5% of money supply in domestic currency, as of 2010. The amount of gross official foreign reserves

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[18]Around JD 200 and JD 300.

deteriorated over the years 2011 and 2012, falling to USD 6,616 million in 2012. Hence, these reserves accounted for only 29.3% of domestic currency money by the end of 2012, constituting the lowest coverage ration since a decade.The decrease in the Central Bank of Jordan's foreign reserves that started since is attributed to the following reasons: (United Nations 2013).

- Decrease in Jordanian's remittances, specifically those who work in the gulf region by 4.5% in 2011 attributed to the uncertainty about the future and stability of Jordan's economy

- Decrease in tourism revenues from USD 3460.2 million in 2010 to USD 3003 million in 2011.

- Decrease in FDI inflows from 2010 to 2012 by 14.4% reaching USD 1413 million in 2012.

Central Bank Foreign Reserves
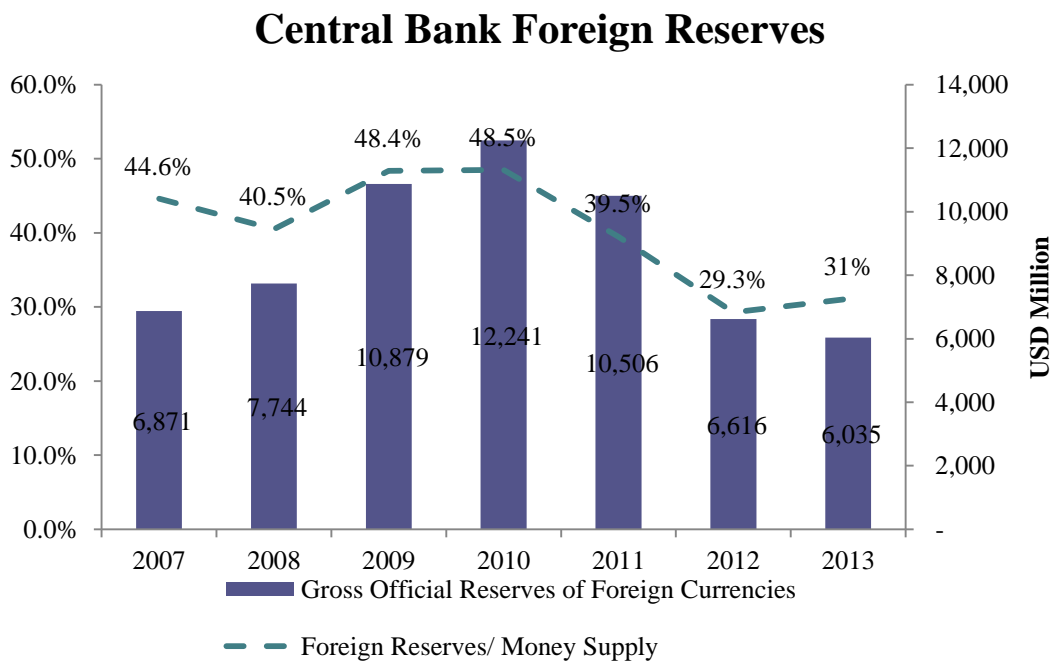
Fig.38. Jordan's Foreign Reserves and Foreign Reserves to Money Supply Ratio
Source: Central Bank of Jordan.

By the end of the year 2011, foreign reserves were supported with USD 1.4 billion of grants from Saudi Arabia. Nevertheless, rising fiscal and budget deficits in the year 2012 resulted in lack of confidence in the Jordanian's Dinar stability which led to a further decline in reserves in 2012. However, recent data collected for the year 2013 imply a slight decrease in foreign reserves. This is attributed to the boosted confidence in the Jordanian Dinar by the Central bank's prudence of money supply coupled with the support of international communities via large foreign grants such as the GCC funds. Furthermore, the year 2013 witnessed an improvement in tourism and inflow of remittances which contributed to maintain the Central Bank's foreign reserves in the same year(Jordan Economic Monitor 2013).

7. External Sector

a. <u>Trade Balance</u>

Over the years between 2007 and 2012, Jordan's trade balance was unsustainable and subject to fluctuations. Over the pre- crisis period from 2007 to 2010, Jordan's trade deficit increased by 13.61% due to rising imports by 16.9%, 12.42%, 8%, and 29% in 2008, 2009, and 2010, respectively. The trend of rising trade deficits continued reaching an all-time highest level in 2013 with USD -19,601 million during which Jordan witnessed a 41% increase in its trade deficit as the Syrian crisis started in 2011. In the year 2011, trade deficit increased by 21.72% as Jordan experienced an increase in the demand for oil "to make up for the interruptions in the supply of Egyptian gas" (United Nations 2013). In this context, Jordan had to find other solutions that could make up for the loss in supply of Egyptian gas by reverting to solar fuel imports to be able to produce electricity, which are far more expensive than gas. The Egyptian revolution have imposed a burden on Jordan's imports during which it rose by

21% in 2011 equivalent to the rise in the trade deficit in the same year. Moreover, the large inflow of Syrian refugees into Jordan translates into increased demand on imported fuel, exerting additional pressure on the trade deficit. As shown in the below figure, the current account balance was also in deficit but was relatively stable over the years 2007, 2008, and 2009. However, current account deficit started to widen by the escalation of the Arab spring in 2010 and widened further with the uprising of the Syrian crisis in 2011 with a decrease in the services balance during that year.[19] Even though the magnitude of trade between Jordan and Syria is relatively small, the Syrian crisis and the escalation of armed conflicts across many Syrian areas disrupted major trading routes between Syria and Jordan to Lebanon, Turkey, and Europe. The underlying disruption in transit trade have forced Jordan to use expensive alternative routes such as Iraq and Aqaba Ports which negatively affected Jordan's exports' price competitiveness and resulted in decreased exports from USD 8,018 million in 2011 to USD 7,882 million in 2013. According to the United Nations report, "a significant portion of Jordanian agricultural products that used to be exported to Syria were disrupted" (United Nations 2013).

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[19] Refer to statistical Appendix I, 3.

Trade and Current Account Balances

Fig.39. Jordan's Foreign Reserves and Foreign Reserves to Money Supply Ratio
Source: Jordan's Department of Statistics, Economic Intelligence Units, Jordan's Country Report 2014.

b. Balance of Payments

Upon the start of the Arab Spring in 2010, Jordan's foreign direct investment inflows fell by 32% when compared to the year 2009. This is attributed to the fact that many foreign investors lost appetite towards investing in the region with all the political and social unrest it's experiencing.In this context, and with almost stable inflow of remittances, the substantial decrease in FDI inflows,have contributed to a 79% increase in Jordan's balance of payments. Moreover, upon escalation of the Syrian conflict in 2011, FDI inflows were reduced by further 11% with a reduction of 4% in the inflow of remittances, as Jordanians became uncertain about the future of the already strained economy. The balance of payments recorded a 150% increase in deficits to USD -3,475 million. In the year 2012, FDI inflows were reduced by 4%, and the trade deficit increased by 26% in 2012, Jordan's balance of payments severely deteriorated,

84

recording a deficit of USD 5,640 million during that year.[20]

Table 5. Jordan's Balance of Payments

(in USD million)	2007	2008	2009	2010	2011	2012
Inflow of Remittances	2,996	3,165	3,126	3,172	3,038	3,148
% Change	39%	6%	-1%	1%	-4%	4%
FDI	2,622	2,826	2,413	1,651	1,469	1,413
% Change	-26%	8%	-15%	-32%	-11%	-4%
Balance of Payments	-2,874	-2,038	-778	-1,390	-3,475	-5,640
% change	67%	-29%	-62%	79%	150%	62%
Inflow of Remittances	2,996	3,165	3,126	3,172	3,038	3,148
% Change	39%	6%	-1%	1%	-4%	4%

Source: Central Bank of Jordan, UNCTAD Stat.

8. Public Sector

a. Fiscal Balance

Over the years between 2007 and 2009, Jordan's fiscal deficit tremendously increased by 549% in 2009 to account for a deficit of USD 948 million. This was mainly attributed to a significant average yearly rise in total government expenditures of 11% coupled with a 9% decrease in total government revenues. Even though fiscal accounts slightly recovered in 2010 with a 4% reduction in government expenditures and a 4% increase in total government revenues contributing to a 34% decrease in total budget deficit reaching USD 621 million, the government witnessed a weak revenue stream in 2011 with a deterioration of 3% and an imposed increase in government expenditure of 11% in the same year exerted upward pressure on the fiscal deficit that increased by 40% reaching USD 870 million.

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[20] No recent published data available by the Central Bank of Jordan for the year 2013, for this reason the analysis is limited to the year 2012.

Table 6. Jordan's Budget Balance

USD Million	2007	2008	2009	2010	2011	2012	2013[21]
Government Revenues[22]	3,295	3,978	3,628	3,770	4,287	3,809	4,455
Growth Rate		21%	-9%	4%	14%	-11%	17%
Government Expenditures	-3,685	-4,124	-4,576	-4,391	-5,157	-4,996	-6,013
Growth Rate		12%	11%	-4%	17%	-3%	6%
Total Budget Deficit	-390	-146	-948	-621	-870	-1,186	-1,558
Growth Rate		-63%	549%	-34%	40%	36%	31%

Source: IMF, World Economic Indicators, October 2013, Jordan's Ministry of Finance, Monthly Bulletin, 2013, United Nations, 2013.

It is worth mentioning that prior to the Syrian crisis the government already experienced a rising budget deficit and was highly dependent on foreign grants. In the year 2011, government revenues rose by 14% attributed to a large grant of USD 1.4 billion from Saudi Arabia. The highest rate of increase in government expenditure was in the year 2011 that witnessed a 17% increase. As for the year 2012, to alleviate revenues the government decreased subsidies and increased the price of fuel derivatives, electricity and water, nevertheless, it did not succeed at increasing revenues. On the contrary, revenues decreased by 11%, yet expenditures also decreased by 3%. "According to the World bank, Syrians in Jordan benefit from a number of subsidies, including bread, electricity, water, and household gas. More than USD 152.4 million is needed to provide these subsidized items to more than 600 thousand Syrian refugees in Jordan in 2013." (United Nations, 2013)Upon the rising inflow of refugees in the year 2012, Jordan incurred subsidies of USD 251 million to support the Syrian refugees in

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[21] Based on IMF staff simulations

[22] Total government expenditure takes into account government grants derived from the United Nations Report 2013 during which details of grants are provided in statistical appendix I, 4.

their basic needs and services.[23]As for the year 2013, the needed subsidies for Syrian

refugees are shown in Figure 40.

Needed Subsidies for Syrian Refugees in 2012

16.6   19.2

23

USD Million   93.6

■ Water ■ Flour ■ Electricity ■ Household Gas

Needed Subsidies for Syrian Refugees in 2013

17   19

35

USD Million   133

■ Water ■ Flour ■ Electricity ■ Household Gas
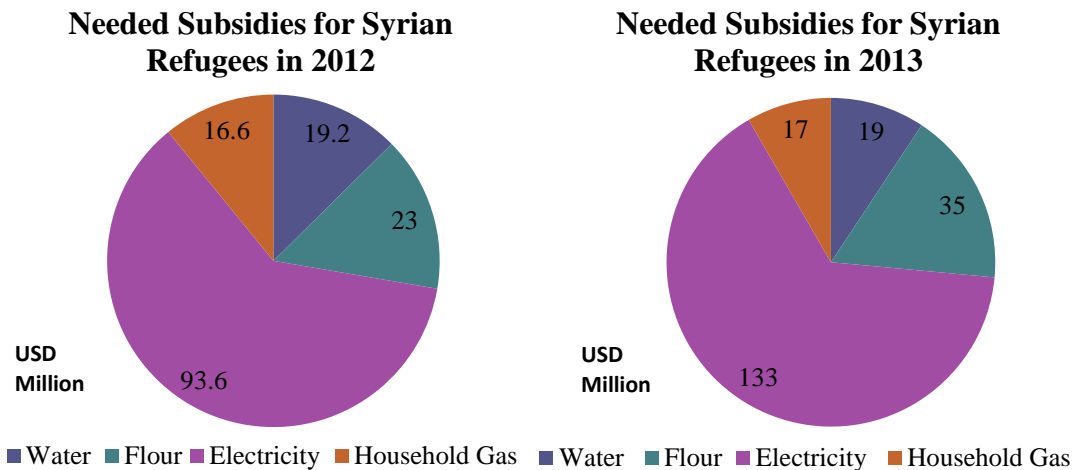
Fig.40. Jordan's needed Subsidies for Syrian Refugees 2012-2013
Source: Ministry of Planning and International Cooperation report, 2013, United Nations Report, 2013.

IMF staff simulations records a 6% increase in government expenditures but a

17% increase in government revenues as grants are estimated to be around USD 602.65

million in 2013. However, the increase in needed subsidies to support the Syrian

refugees over the years 2011, 2012, and 2013, is expected to have increased total fiscal

deficit by 150% when compared to the pre-crisis year in 2010. The total budget deficit

is expected to record 31% increase in 2013 reaching USD 1,558 million. Finally, the

government's incurred deficits is attributed in part to the stoppage of Egyptian gas, and

to the increase in government spending on services to meet the demand of a larger

population levied by the Syrian influx of refugees. In comparison to Lebanon, total

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[23]According to Jordan's Ministry of Planning and International Cooperation's report in October 2013; "Impact of Hosting Syrian refugees", this number does not incur for the costs associated with establishing and operating refugee camps.

budget deficit increased by 35.6% between 2010 and 2012. Moreover, a 32% increase in deficit was witnessed in the first eleven months of 2013 with a 172% increase in the primary budget deficit.

b. <u>Public Debt</u>

Over the period 2007-2010, Jordan's gross public debt gradually increased from USD 12.6 billion in 2007 to USD 17.8 billion in 2010. The public debt was increasingly held domestically as external public debt decreased in 2008 to gradually increase in the following years reaching USD 6.5 billion in 2010. Although gross public debt increased in absolute value from 2007 to 2008, Jordan succeeded at containing its debt during this year, with public debt-to-GDP ratio reduced from 73.8% in 2007 to 60.2% in 2008. However, in face of economic slowdown after the global financial crisis in 2008, the years 2009 and 2010 witnessed an increasing debt to GDP ratio from 64.8% in 2009 to 67.2% in 2010. Moreover, deteriorating fiscal and external balances, as well as the political unrest witnessed in the region coupled with the uprising of the Syrian crisis in 2011, Jordan witnessed a 58.4% increase in domestic public debt since the start of crisis in 2011 as compared to 2010 levels. In that context, public debt to GDP ratio rose in 2011 to 70.8% to further increase in 2012 to 79.6%. This rise is attributed to the fact of rising domestic debt in 2011 and 2012 recording USD 14.1 billion and USD 17.9 billion, respectively.

Noting that the average external public debt was around USD 6.3 billion over the period 2007-2012, domestic public debt increased from USD 5.2 billion in 2007 to reach USD 17.9 billion in 2012. Hence, by the year 2012, gross public debt totaled USD 24.9 billion, of which 72% is domestic debt and 28% is external debt, rendering Jordan immune to external pressure. Nevertheless, Jordan's public debt-to-GDP ratio remains

one of the highest in the MENA region and developing world. The country's public

debt-to-GDP ratio of 79.6% in 2012 exceeded the MENA average of 24.7%, as well as

emerging markets and developing economies' average of 34.7% and according to IMF

staff simulations, it is expected to increase to 83.85% in 2013.
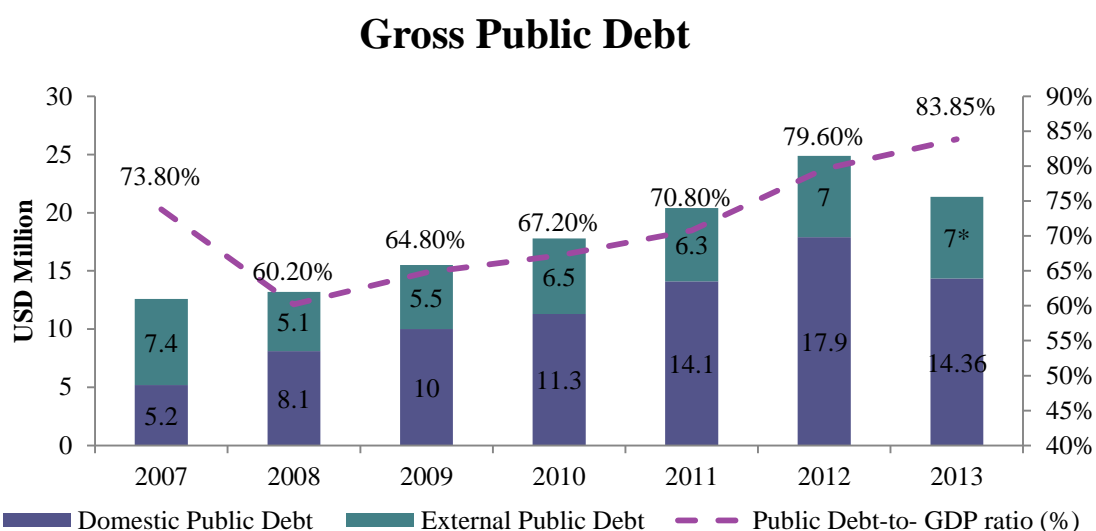
Gross Public Debt

Fig.41. Jordan's Gross Public Debt
Source: Central Bank of Jordan, IMF World Economic Outlook, October 2013.

It is clear that in the midst of the Arab Spring and Syria's crisis, public debt

was subject to increase in both Jordan and Lebanon, during which both countries

experienced a rise of 20% and 20.17% in gross government debt over the period 2010-

2013, respectively, with Lebanon's debt to GDP ratio rising to 143% in 2013 in

comparison to an 83.85% increase in Jordan's debt to GDP ratio for the same year.

9. Banking Sector

a. Assets, Deposits, and Loans

Up till the year 2008, Jordan's banking sector succeeded in reporting growing

banking activity. Total assets of licensed banks have increased by an average annual rate of 11% reaching USD 42,026 million in the year 2008. Total deposits at licensed banks and total loans extended by these banks followed the same growth trend, increasing at an average annual rate of 11.5% and 14.8%, respectively. As of the year 2008, total deposits at licensed banks reached USD 25,533 million, while total loans recorded USD 18,398 million in the same year. From the year 2009 to the year 2011, the banking sector was slightly affected by the global and regional situations, recording slower yet decent growth in banking activity. During the aforementioned period, total assets, total deposits, and total loans grew by average annual rates of 8%, 10% and 7%, respectively. Banking activity further slowed in 2012, marked by a low 4% growth in total assets, reaching USD 55,395 million by the end of the year.

Table 7. Jordan's Banking Assets, Deposits, and Loans

In USD million	2007	2008	2009	2010	2011	2012	Jun-13
Total Assets	37,822	42,026	45,026	45,073	53,154	55,395	57,888
% Change		11%	7%	9%	8%	4%	4.50%
Total Deposits	22,550	25,533	28,630	31,742	34,384	35,218	37,402
% Change		13%	12%	11%	8%	2%	6.20%
Total Loans	15,932	18,398	18,783	20,383	22,357	25,130	25,884
% Change		15%	2%	9%	10%	12%	3%

Source: Central Bank of Jordan.

Total deposits, the main driver of the sector's activity, witnessed a sluggish 2% growth during 2012, to reach USD 35,218 million. However, total granted loans increased by 12% in 2012, mainly due to a spur in lending to the construction sector, while lending to other sectors remained stagnant over the course of the year, reflecting a cautious banking attitude. It is worth noting that with an increase in demand on housing

from the Syrian refugees, construction has been boosted in the economy to meet the demand. For this reason, lending to construction has increased. As for the year 2013, the highest growth was attributed to total deposits base of 6.2% from 2012.

b. Asset Quality Ratios

Concerning asset quality ratios, non-performing loans to total loans increased after the global financial crisis in 2008 reaching 6.7% in 2009 up from 4.2% in 2008. In the midst of overall economic down turn for the years 2010 and 2011, the ratio increased to 8.2% and 8.5% respectively portraying higher rates of credit defaults. However, the year 2012 and the first six months of 2013 witnessed a reduction in non-performing loans to total loans of 7.7% and 7.4%, respectively. In this context, the net provisions of non-performing loans experienced a coinciding trend to the non-performing loans to total loans' ratio, by rising in 2009 and 2010 to 10.6% and 12.6% as a defense mechanism in face of higher credit defaults. The ratio further increased in 2011 to 13.4% amidst the regional instability and its underlying impact on Jordan's overall outlook. However, the banking sector decreased its non-performing loans to equity to 8.3% in 2012 and 6.6% up till June 2013, as the deposits base witnessed a substantial increase in 2013.

Table 8. Jordan's Banking Asset Quality Ratios

In USD million	2007	2008	2009	2010	2011	2012	Jun-13
Nonperforming Loans/Total Loans	4.1%	4.2%	6.7%	8.2%	8.5%	7.7%	7.4%
Coverage Ratio	67.8%	63.4%	52.0%	52.4%	52.3%	69.4%	75.0%
NPLs net of provisions/Equity	4.3%	5.7%	10.6%	12.6%	13.4%	8.3%	6.6%

Source: Central Bank of Jordan.

c. <u>Capital Adequacy and Liquidity Ratios</u>

Jordanian banks have maintained the flow of credit within the economy as they operate with solid capital ratios and high liquidity levels which ensure financial stability. According to Basel III capital requirements of 12%, Jordanian banks have exceeded the ceiling in many years recording a capital adequacy ratio of 19.3%, 19%, and 17.9% in 2011, 2012, and June 2013, respectively. As for the leverage ratio, which is one of the ratios used to proxy capital adequacy and to help banks limit the degree of leveraging their assets base, it maintained an average of 13% over the period 2007-2013 ensuring healthy banking sector. As for the liquidity ratio, it exceeded 100% which proves that the banking sector in Jordan is fully covered against any shock in the money market. Given this context, Jordanian banks enjoy a solid capital base which makes them fully absorb any economic repercussion as a result of the Syrian crisis.

Table 9. Jordan's Banking Adequacy Ratios

	2007	2008	2009	2010	2011	2012	Jun-13
Capital Adequacy Ratio	20.8%	18.4%	19.6%	20.3%	19.3%	19.0%	17.9%
Leverage Ratio	13.3%	12.9%	13.0%	13.1%	13.1%	13.3%	12.9%
Liquidity Ratio	157.5%	141.2%	159.1%	161.4%	152.9%	143.5%	144.2%
ROE	12.6%	11.5%	8.8%	8.8%	8.3%	8.6%	5.1%
ROA	1.6%	1.4%	1.1%	1.1%	1.1%	1.1%	0.6%

Source: Central Bank of Jordan.

E. Turkey's Macroeconomic Analysis

Turkey's geographical location at the junction of Europe, Asia, and the Middle East, has made it one of the fastest growing emerging economies in the world. Turkey's stable macroeconomic policy and massive domestic market has empowered it to

become the eighteenth largest economy in the world in terms of GDP. (Ernest & Young, 2013) Its economy substantially expanded in the years 2010 and 2011 however economic performance slowed down in the years 2012 and 2013. In the midst of the euro-debt crisis and the global economic slowdown coupled with the escalating regional political tensions from the Arab spring turmoil, Turkey's Central Bank conducted a tight monetary policy aiming to narrow down high inflation rates which largely broke the economic expansion trend that prevailed before the year 2012 andaffected investors' incentives in Turkey's economy. In this context, Turkey's economic slowdown cannot be fully contained to the spillover effects of the Syrian crisis, given the geographical proximity between Syria and Turkey as Turkey borders Syria from the south.Nevertheless, Turkey has taken an open political stand with the Free Syrian Army that condemns Assad regime and provided them with safe zones and bases of operation. In addition, it has also provided Syrian revolts with military equipment, rendering turkey prone to political spillover effects that took place in bordering areas as Turkey already experienced several clashes, bombings, shellfire, and sectarian tensionsspecifically in its southern bordering province – Hatay.

Furthermore, since the uprising of the Syrian crisis in 2011, Turkey was one of the first countries in the region welcoming inflows of Syrian refugees during which more than 600,000 refugees have fled to Turkey for the rescue. "The majority of Syrian refugees are concentrated along the northern Syrian border in the southern Turkish provinces" (UNHCR 2013). Turkey has established one of the world's best refugee camps during which 40% of the Syrian refugees live across twenty one camps, "where they receive shelter, food, health, education, security, and other services" (UNHCR 2013). The remaining 60% of refugees reside independently in Turkish cities. According to the UNHCR, "Turkey has borne an estimated 95% of the cost responding

to the refugee crisis and as of September 2013, the Turkish state has invested USD 2 billion in direct support to the refugees where only 26% has been funded." This posed a great burden on the Turkey as a host country (UNHCR 2013).

The following section analyzes Turkey's economic performance taking into consideration but not limiting the analysis to the effects of the Syrian crisis.

1. Real GDP growth and Investment Share of GDP

Turkey experienced a boosted economic growth after the year 2009 recording a 9.16% real GDP growth in 2010 and 8.77% in 2011 with investments accounting for 19.52% and 23.56% of GDP, respectively. However, Turkey's economy drastically slumped down in 2012 recording a real GDP growth of 2.17% even though investment share of GDP slightly dropped to 20%.Turkey's tight monetary policy and its high current account deficit coupled with the escalation of the Syrian crisis in 2012 and several domestic political tensions rendered the economy vulnerable and suppressed investors' confidence in Turkey's economy.

Real GDP Growth and Investment Share
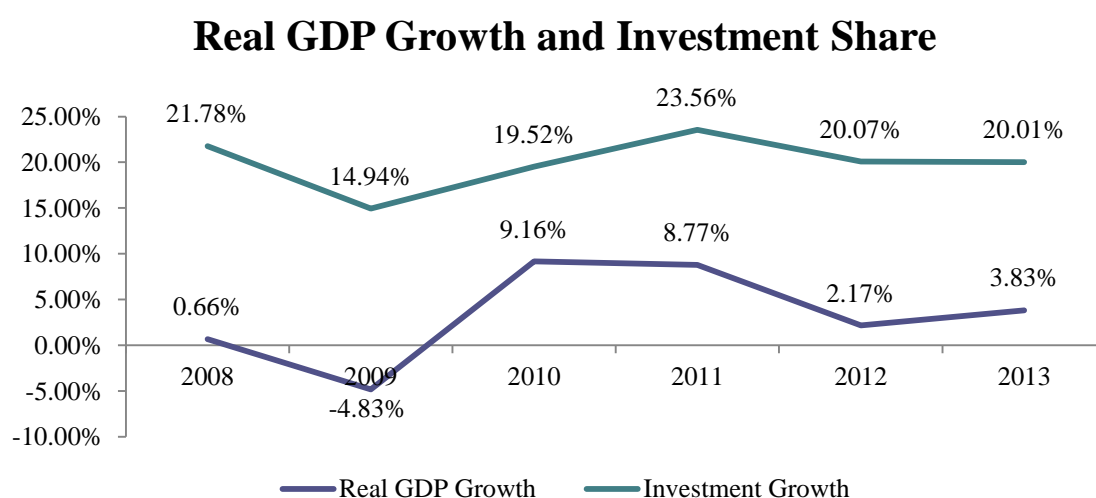
Fig.42. Turkey's Real GDP Growth and Investment Share of GDP
Source: IMF, World Economic Outlook.

The composition of Turkey's economy shows that the services sector constitutes the highest share of GDP of 63%, followed by a 28.1% share for the industrial sector, and 8.9% share for the agricultural sector. [24]

2. Inflation and Exchange Rate

Over the period 2007-2013, Turkey has witnessed fluctuations in its inflation rate that remained relatively high over time. Inflation rate dropped in the year 2009 to 6.25% from 10.44% in 2008 in face of the global financial crisis and euro debt crisis that year coupled with Turkey's low economic growth. However, upon the extraordinary economic expansion in the year 2010, inflation rates increased again to reach 8.57%. The high inflation rates in Turkey are attributed to the fact that its economic expansion and the positive prospects on the Turkish economy attracted large capital inflows into the country which further pressured inflation rates. Despite the Central Bank's inflation target of 5.5% in 2011, its main aim was to maintain strong economic growth, for this reason, inflation rate dropped slightly to 6.57% in that year. Nevertheless, on the back of higher food and oil prices, and pressure on exports due to the appreciation of the Turkish Lira in 2012, inflation rate soared again to 8.89% in the same year. Despite Turkey's inflation rate target of 5% in 2013, it recorded a 7.71% inflation rate that is far away from the target during which food prices rose by 9.7% coupled with 20% depreciation in local currency.

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[24] Based on 2012 estimates on http://www.theodora.com/wfbcurrent/turkey/turkey_economy.html

Money Supply Growth & Inflation
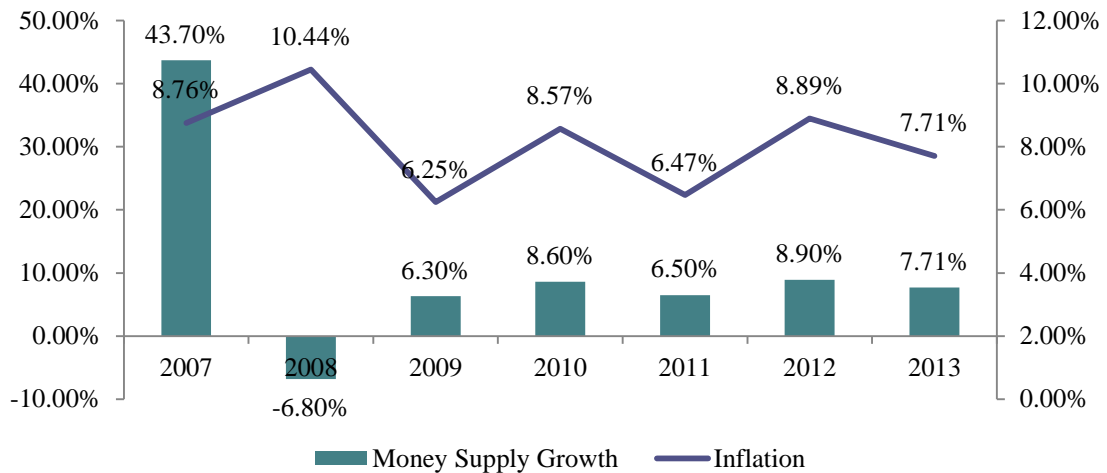
Fig.43. Turkey's Money Supply Growth and Inflation Rates
Source:Central Bank of Turkey, IMF, World Economic Outlook.

Several factors affected high inflation rates in Turkey and are not limited to the spillover effects of the Syrian crisis. Besides several clashes occurring on Turkey's borders with Syria, domestic political tensions between the government and opposition groups in Turkey have shook the country and had devastating effects on its macroeconomic performance. Further, investigation involving a bribery accusation has revealed a political scandal accusing business men and sons of three ministers in the Turkish state for bribery and corruption.

In face of recent depreciation of the Turkish Lira, the Central Bank of Turkey opt to suppress pressures on inflation rates by maintaining the tight monetary policy stance and raised interest rates from 4.5% to 10%. However, the slow growth in lending and weak capital flows has showed a deceleration in domestic demand. (Central Bank News, 2014) The Central Bank of Turkey stated that the "recent domestic and external developments had adverse impact on risk perceptions, leading to a significant depreciation in the Turkish Lira and a pronounced increase in the risk premium"(Central

Bank News 2014).

In face of the global financial crisis and Eurozone crisis effects on emerging markets, Turkey's currency depreciated throughout the period 2009-2011by 27% reaching 1.89 TL per USD. Despite this scenario, the Central Bank of Turkey maintained its holding of foreign assets which accounted to USD 88,340 million in 2011. However, the quantitative easing in the United States and other advanced economies to mitigate the devastating effects of the global crisis on economic growth in 2012, has had effects on Turkey's economy, being one of the fastest growing emerging markets (Central Bank of Turkey 2012). "The availability of ample and low-cost short-term external financing led to a rapid credit growth and gradual appreciation of the Turkish lira in this period," falling to TL1.782 per USD by the end of 2012. Upon appreciation of the Turkish lira, foreign reserves of the Central Bank increased by 35% in 2012 accounting for USD 119,157 million.
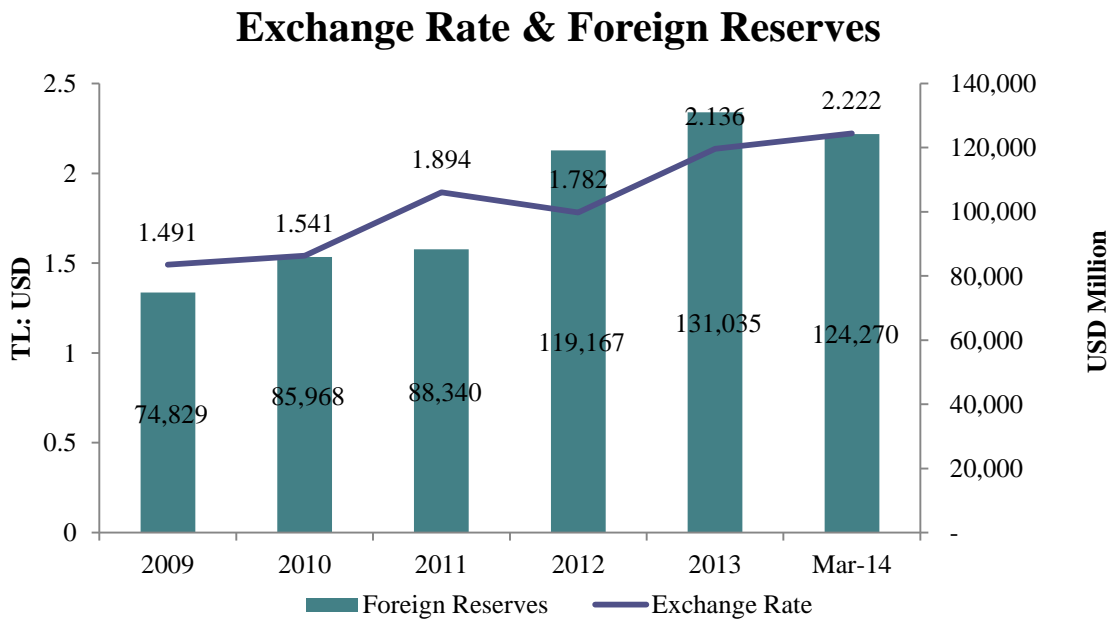
Fig.44. Turkey's Exchange Rate and Foreign Reserves
Source: Central Bank of Turkey, Economic Intelligence Units, Country Report.

However, upon several domestic and external political shocks, coupled with the money supply tapering of the United States, which caused investments to flow out of turkey, exerting upward pressure on the domestic currency as the Turkish lira further depreciated in the year 2013 reaching TL 2.136 per USD. Recent data shows that Turkey's exchange rate have fallen by almost 5% since the beginning of 2014 as the Central Bank was not able to defend the currency effectively. Further, it is worth noting that the tight monetary policy measures have not been effective in bringing down inflation to the 5% target. In this context, the Syrian crisis poses a mere effect on inflation and exchange rates in Turkey, as domestic factors have contributed more to shake the economy.

3. External Sector

Turkey's trade and services sector accounts for 60% of its GDP and has long exacerbated a trade deficit. Over the period 2007-2013, Turkey experienced fluctuations in its trade and current account deficits. Prior to the Syrian crisis, Turkey's external sector recorded an improvement during which its trade deficit declined from USD 46,852 million in 2007 to USD 24,850 million in 2009 and its current account deficit decreased by 68% from USD 37,781 million in 2007 to USD 12,124 million in 2009. However, in the year 2010, even though exports increased by 10% from 2009, imports increased by 32%, widening the trade deficit by 275% to USD 56,413 million. This trend continued for the year 2011, after the Syrian crisis, where imports increased by 31% in value while exports only increased by 18%, exerting upward pressure on both the trade and current account deficits that recorded USD 89,137 million and 75,082 million in 2011, respectively. This is attributed to the fact that oil and fuel prices soared in the year 2011, particularly after Libya's turmoil that disrupted the supply of oil in the

region, taking into consideration that around 22.1% of Turkey's imports corresponds to oil and mineral fuels.

Trade and Current Account Balances
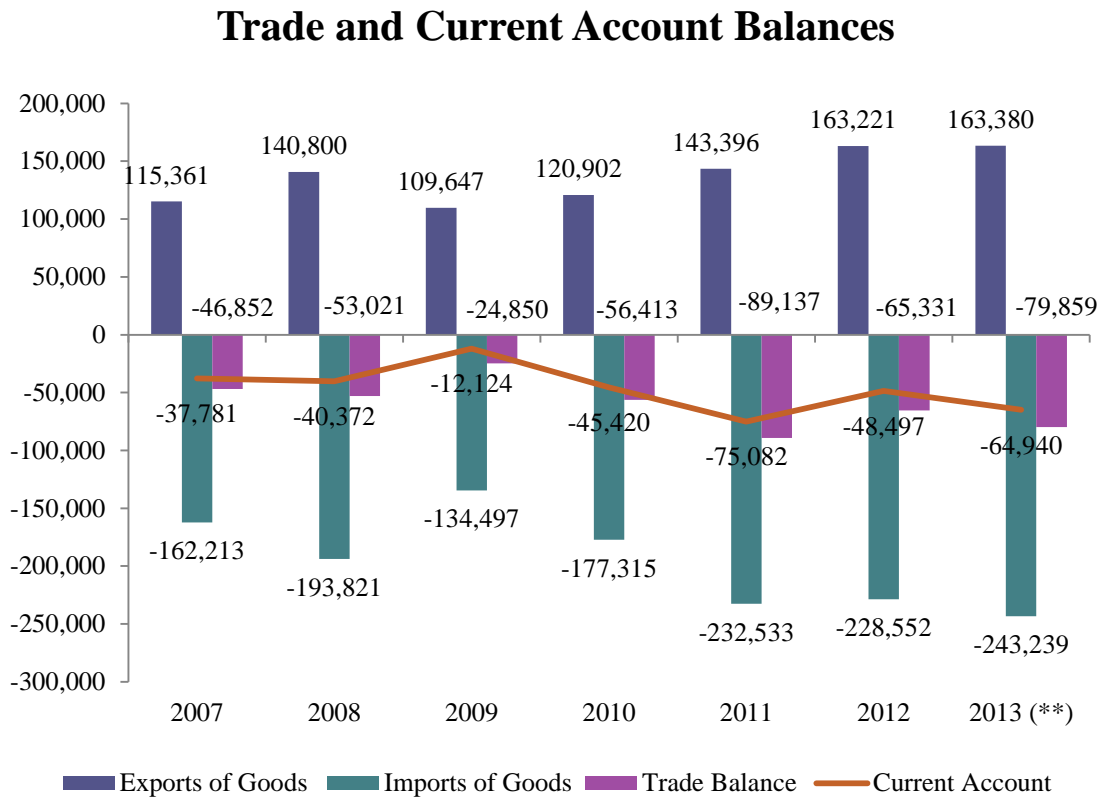
Fig.45. Turkey's Trade and Current Account Balances
*Source:*Central Bank of Republic of Turkey.

Nevertheless, upon the appreciation of the Turkish Lira in the year 2012, Turkey's trade deficit has decreased by 26.7% reaching USD 65,331 million with a narrowed current account deficit by 35.4% as imports became cheaper and decreased in value with an increased exports' value. Furthermore, the year 2012 witnessed a boosted gold exports, specifically to Iran, in return of energy purchases which further eased pressure on current account deficit.

However, the year 2013 witnessed an increased trade and current account

deficit recording USD 79,859 million and USD 64,940 million, respectively.Despite the

depreciation of the Turkish Lira in 2013 that was expected to increase exports, exports

merely increased by 0.6%, during which Turkey witnessed a relatively constrained trade

with its major trade partners. Turkish exports to the near and Middle Eastern region

have fell by 19.7% in 2013. Further, FDI from Europe and America to Turkey

decreased by 19% and 26% in 2013 as domestic political tension intensified during the

same year. [25]

Balance of Payments
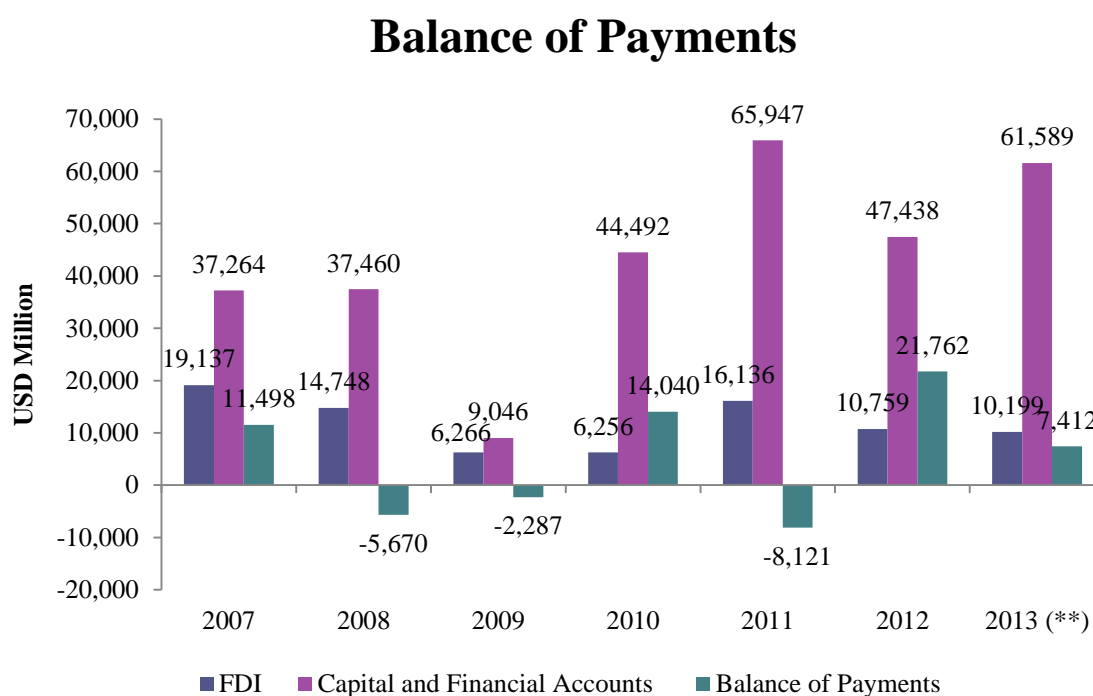
Fig.46. Turkey's Balance of Payments
*Source:*Central Bank of Republic of Turkey.

Moreover, total FDI decreased after the year 2011, reaching USD 10,759

million in 2012 and USD 10,199 million in 2013. However, the deeper deficit at the

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[25] Refer to statistical appendix I, 5 for detailed yearly FDI inflows from
Europe, Asia, and America.

current account level has been offset by a positive balance of payments of USD 7,412 million due to a surge in financial and capital accounts that increased by 30% from USD 47,438 million in 2012 to USD 61,589 million in 2013. Yet, the increase in the current account deficit outweighs the surplus in the financial and capital accounts, which explains the vulnerability of Turkey's external sector to investors' sentiments, especially after the monetary tapering in the United States that curbed capital inflows to Turkey.

Attempting to analyze the spillover effects of the Syrian crisis on Turkey's external sector, it is obvious that several factors have caused trade and current account balances to record deficits. However, the Syrian crisis has setback Turkish exports as a result of the route disruption. Since the year 2007, Turkey's new focus was boosting growth through the Middle East which increased business and investments of Turkish trade with Syria and the region beyond. Since the year 2007, Turkish exports via Syria have been increasing. It has been scored that the number of full Turkish trucks crossing from Hatay- a bordering Turkish province to Syria from the south, have increased from 15,634 in 2007 to peak at 108,591 in 2010. "Hatay became Turkey's second highest provincial level of exports to Syria after Istanbul, underlying its role as Turkey's trade transit route to the south"(Collinsworth 2012).

Upon the uprising of the Syrian conflict in March 2011, Turkish trade with Syria steeply dropped as the total number of full trucks crossing into Syria fell to around 6,000 in the year 2012 which accounts for one ninth of the 2010 peak. However, the impact of the disruption in trading between Hatay and Syria is contained as only 5% of total exports were attributed to Syria (Collinsworth 2012). Also, it is imported to note that total exports kept on increasing after the escalation of the Syrian crisis, though merely. For this reason, despite the disruption of transit trading routes between Turkey

and Syria, the deficits levied on the trade and current account balances cannot be fully attributed to the Syrian crisis, as the fluctuation in the Turkish lira, as well as, the drawbacks of the global trade due to the aftermath of the global financial and euro-debt crises, and the domestic political and social unrest prevailing in Turkey have contributed to widening deficits.

4. Tourism

In comparison to Lebanon and Jordan, during which both countries suffered from a contraction in the travel services and number of tourists as a result of the repercussions caused by the Syrian crisis, Turkey's tourism sector was not as severely affected. The year 2012 witnessed the same number of tourists as the year 2011 reaching around 31 million which increased to 34 million in 2013. Travel services also increased, though merely from USD 20,171 million in 2011 to 21,251 and 23,180 in the years 2012 and 2013, respectively. The growth rate in travel services was only 5% in 2012 and 9% in 2013.
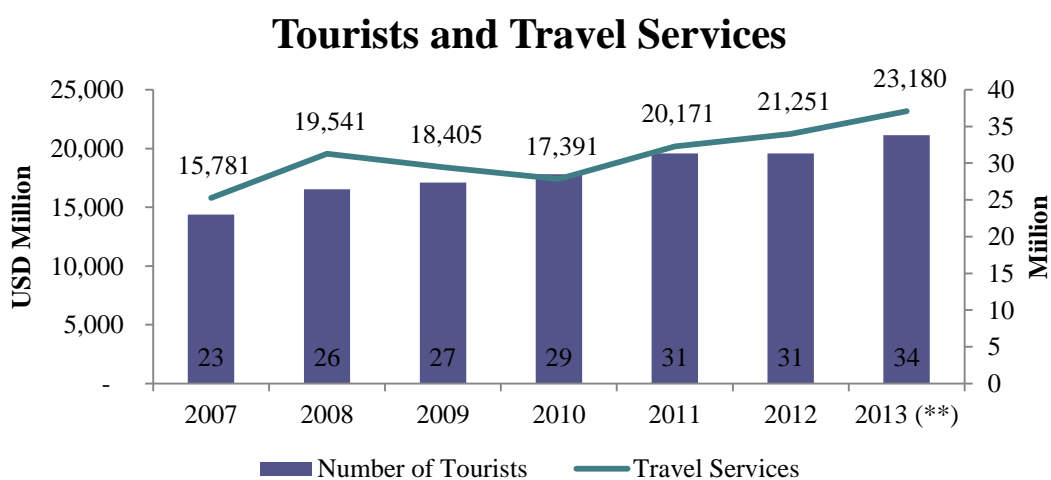
Fig.47. Turkey's Number of Tourists' Arrivals and Travel Services
*Source:*Central Bank of Republic of Turkey.

5. *Public Sector*

a. <u>Fiscal Balance</u>

       Turkey's budget deficit has maintained a declining trend since the year 2009 reaching a fiscal deficit to GDP ratio of 0.7% in the year 2011. However, the budget deficit rose again from recording a deficit of USD 5.1 billion in 2011 to USD 12.7 billion in 2012 and as a result increased the fiscal deficit to GDP ratio to 1.6%. Both government revenue and expenditures rose over the period 2007-2013, however government expenditures rose at a higher rate than government revenues recording a 31.1% increase from 2011 to 2013 and a 25.7% increase over the same period, respectively. However, it is worth noting that the fiscal deficit to GDP ratio declined in the year 2013 to 1.2% which is by far the lowest reachable ratio since the year 2007. According to the IMF, Turkey should seek structural reforms to decrease its fiscal deficit by increasing its government savings.

Fiscal Budget Deficit
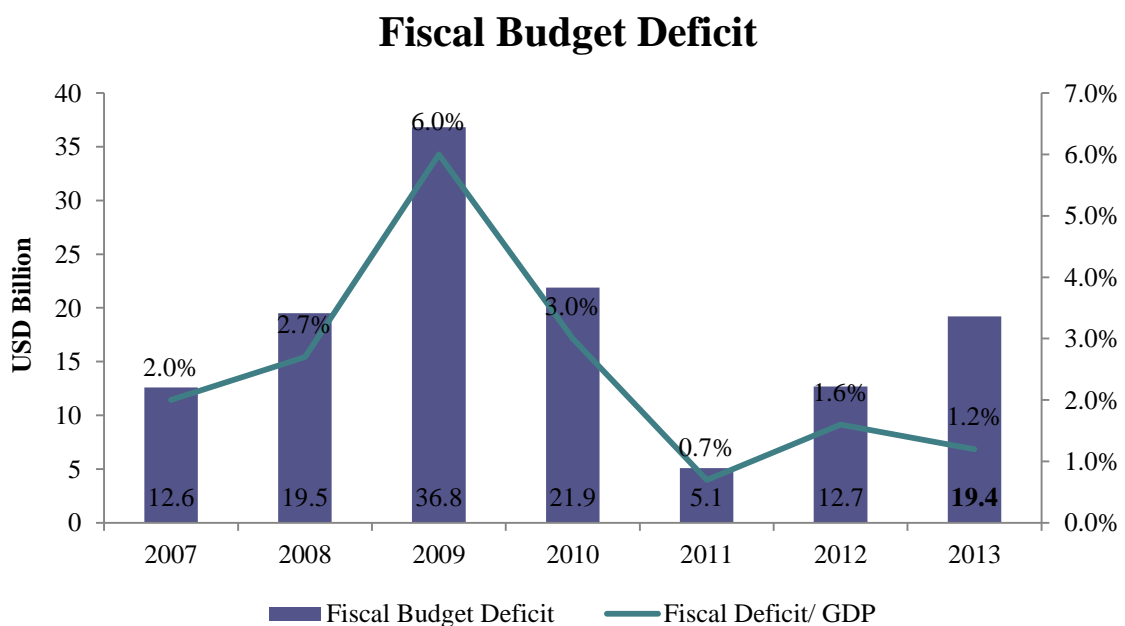
Fig.48. Turkey's Budget Balance
*Source:*IMF, Bank Audi Research Department.

103

b. Public Debt

As for Turkey's public indebtedness, it witnessed a falling trend in its debt-to-GDP ratio, since the year 2009 during which it declined by ten percentage points reaching 36% in 2013. Turkey's fiscal deficit did not exert upward pressure on its debt-to-GDP ratio. Turkey maintains a good debt to GDP ratio in comparison to Lebanon and Jordan as these two countries experience two of the highest debt to GDP ratios in the MENA region.
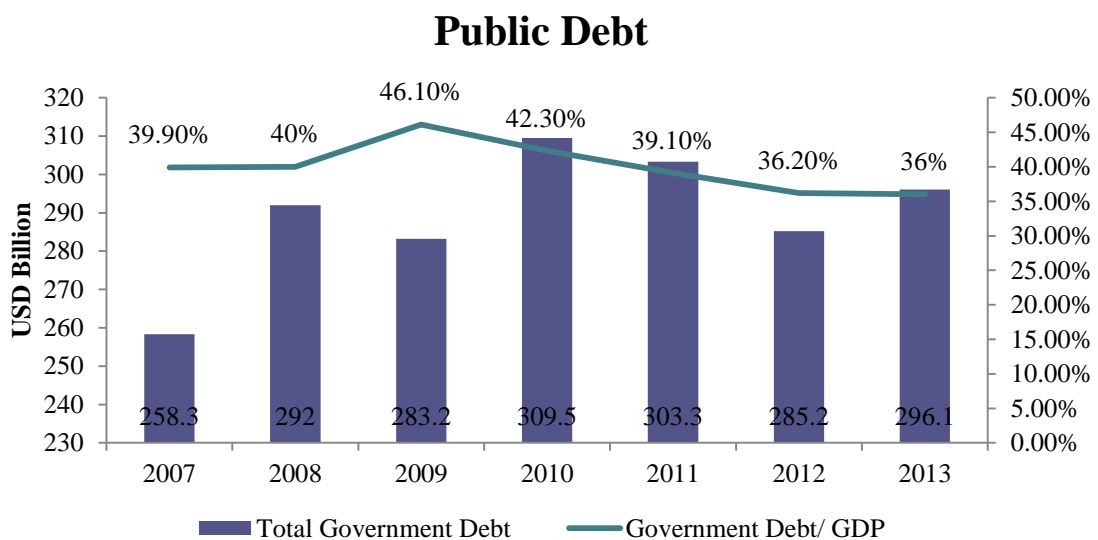
Public Debt

Fig.49. Turkey's Public Debt
*Source:*IMF, Bank Audi Research Department.

6. Banking Sector

a. Assets, Deposits, and Loans

The banking sector remained healthy despite many shocks confronting Turkey's economy. Growth rates in assets increased from -0.8% in 2011 to 20.9% in 2012. This could be seen as a proxy of a sound banking industry measuring the

aggregate assets of all banks operating in Turkey. Moreover, deposits grew at 18.7% in 2012 from -5% in 2011. Traditionally in Turkey's banking industry, deposits were the main driver of the banking activity. However, due to the depreciation in the Turkish Lira in 2013, the dollarization rate reached 35.5% by the end of September 2013 while recorded a 32.6% rate by the end of the year 2012.

Credit facilities, which are a proxy to the financing needs of the domestic economy by loans, grew from 8% in the year 2011 to 26.3% in 2012 and recorded 11.40% growth rate in the year 2013. Financial intermediation of the banking sector in Turkey's economy was sound and healthy as the growth rates in loans were distributed around small and medium sized enterprises, retail, and project finance loans. It is worth mentioning that "consumer and credit card loans contributed to 30% of total loan growth, underlying the healthy demand for retail loans in Turkey" (Bank Audi 2013). Concerning shareholder's equity, it increased from -12.1% in 2011 to 32.1% in 2012, though it declined to -7.2% by the end of September 2013.

Table 10. Turkey's Banking Assets, Deposits, Credit Facilities, and Shareholder's Equity

(USD Million)	2007	2008	2009	2010	2011	2012	Sep-13
Assets	460,213	444,998	513,059	611,275	606,184	732,820	780,579
Growth rate	40.90%	-3.30%	15.30%	19.10%	-0.80%	20.90%	6.50%
Deposits	291,026	284,360	324,639	381,949	362,848	430,559	444,571
Growth Rate	39.70%	-2.30%	14.20%	17.70%	-5%	18.70%	3.30%
Credit Facilities	206,817	197,788	224,285	312,929	338,027	426,933	475,703
Growth Rate	54.30%	-4.40%	13.40%	39.50%	8.00%	26.30%	11.4%
Shareholder's Equity	63,807	55,640	72,884	87,089	76,540	101,139	93,816
Growth Rate	54.40%	-12.80%	31.00%	19.50%	-12.10%	32.10%	-7.20%

Source: Central Bank of Turkey, Bank Audi's Research Department

b. <u>Financial Soundness Indicators</u>

Concerning Turkey's overall financial soundness regarding asset quality, provisional levels, and profitability, the below table depicts its healthy financial performance. Non-performing loans to total gross loans declined in the year 2011 to 2.58% and slightly increased in 2012 and 2013 to 2.74% and 2.63%, respectively. However, non-performing loans still constitute a small portion of total loans indicating lower credit defaults in the country. Coinciding to the slight increase in the mentioned ratio, non-performing loans net of provisions to Capital increased from 2.48% in the year 2011 to 2.96% and 3.19% in the year 2012 and 2013. Therefore, the numbers ensure Turkey's steady banking assets' quality and healthy lending activity.

Furthermore, regarding liquidity of assets, almost half of the banking sector assets are liquid in the year 2012 and the liquidity ratio slightly declining to 48.19% in the third quarter of the year 2013. Return on assets and return on equity ratios have maintained almost the same positions since the year 2011 ending the third quarter of 2013 with a 2.23% and 19.04%, respectively. Therefore, it can be concluded, that Turkey's strong asset quality ratios, significant provisional levels, as well as, its relatively stable liquidity ratio have made the banking sector sound against any shock and thus, potential losses. Though capital adequacy ratio slightly declined from 17.9% at the end of 2012 to 15.7% at the end of September 2013, it remains relatively high in comparison to the Basel III capital requirement of 12%.

In this context, the Turkish banking sector has been able to handle the domestic and regional political and social tensions and operate with significant financial soundness despite the tensions' impact on domestic interest rates and currency volatility. The Syrian crisis proved not to impact Turkey's banking sector.

Table 11.Turkey's Financial Soundness Indicators

	2009	2010	2011	2012	2013Q3
Non-performing Loans to Total Gross Loans	4.97%	3.49%	2.58%	2.74%	2.63%
Non-performing Loans Net of Provisions to Capital	3.11%	2.36%	2.48%	2.96%	3.19%
Regulatory Tier 1 Capital to Risk-Weighted Assets	18.64%	17.05%	14.94%	15.12%	13.43%
Liquid Assets to Total Assets (Liquid Asset Ratio)	57.66%	55.44%	49.72%	50.93%	48.19%
Return on Assets	3.27%	3.08%	2.23%	2.35%	2.23%
Return on Equity	26.42%	23.92%	19.04%	19.58%	19.04%

Source: IMF, Financial Soundness Indicators (FSI)

CHAPTER IV

THE EMPIRICAL ANALYSIS

In an attempt to statistically estimate the impact of the Syrian crisis on Lebanon's economic growth and compare it to several shocks that hit Lebanon's economy and assess the value and significance of its impact on Lebanon in comparison to its impact on Jordan and Turkey, this chapter will describe the methodology and the data used for the empirical analysis. It will depict a statistical analysis of the data and will thereafter provide an empirical analysis of the econometrics results. Finally, this chapter will theoretically interpret the empirical findings.

A. Methodology

Providing an effective framework for modeling and indicative inference requires preliminary statistical testing of the time series data employed in any econometric model. In economics, co-integration is often associated with economic theories that imply the existence of long run equilibrium relationships between time series variables and associate them with statistical properties that are defined by the concepts of stationarity and order of integration. The order of integration of time series data is given by the number of times the series need to be differentiated in order to become a stationary series. In econometrics, co-integration analysis is essential prior to the empirical modeling and testing as it is used to estimate and test stationary linear relationships or co-integrating relationships between non-stationary time series variables. For the purpose of econometric modeling, Johansen co-integration test will be applied to test for the long run co-integration relationship between the time series

variables employed in this thesis. The Johansen test will reveal the number of co-integrating variables, specifically the variables' co-integrating rank and prove a stationary linear deterministic relationship between some variables, even if certain variables are non-stationary, in order to obtain effective and indicative results from applying Ordinary Least Squares (OLS) estimation, which will be the model employed for the empirical analysis. OLS is applied in statistics to estimate unknown parameters in a linear regression model by minimizing the sum of squared residuals. The OLS linear regression model consists of a dependent variable (Y_t), a constant (α), a set of regressors – or predetermined variables (X), and an error term for residuals(ε). After satisfying several white noise assumptions and theories, OLS estimation gives the best linear unbiased estimator (BLUE) of the regression's coefficients. The following is an example of a simple linear regression model:

$$Y_t = \alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_t X_t + \varepsilon_t$$

In this thesis, country specific studies to Lebanon, Jordan and Turkey will be carried out using OLS to test for the relationship between real GDP growth and macroeconomic variables such as interest rates, exchange rates, foreign direct investment flows, and current account balances. Moreover, the core aim of this regression testing is to show the negative impact of the Syrian crisis on Lebanon's economic growth vis-à-vis all political shocks (domestic and exogenous) that hit the Lebanese economy between the years 1980 and 2013 and to compare the impact of the Syrian crisis across the three countries. The following regressions are employed in the econometric model:

1. Lebanon's Regression

$$Y_t = \beta_0 + \beta_1 Y_{(t-1)} + \beta_2 \log(\text{FDI})_t + \beta_3 \log(\text{IR})_t + \beta_4 \log(-\text{CA})_t + \beta_5 d_{1t} + \beta_6 d_{2t} + \epsilon_t$$

where the dependent variable Y_t represents Lebanon's real GDP growth (economic growth), $Y_{(t-1)}$ represents the lagged real GDP growth, log (FDI) denotes for the logarithm of Lebanon's foreign direct investment flows, log (IR) denotes for the logarithm of Lebanon's lending interest rates and log (-CA) represents the logarithm of the negative of the current account deficit since log cannot be applied to a non-positive number. The two most relevant variables to the analysis of the impact of the Syrian crisis on Lebanon and its comparison to all other shocks on Lebanon are d_1 and d_2 which denote for the incorporated dummy variables, where d_1 represents the dummy variable associated with the turmoil of the Syrian crisis on Lebanon and d_2 represents all the exogenous shocks on Lebanon, excluding the Syrian crisis. The coefficient β_0 (beta) represents the intercept of the regression, $\beta_{1 \to 6}$ represents the coefficients of the independent variables, respectively, and ϵ_t denotes for the regression's residuals.

2. Jordan's Regression

$$Y_t = \theta_0 + \theta_1 Y_{(t-1)} + \theta_2 \log(FDI)_t + \theta_3 \log(IR)_t + \theta_4 d_3 + \theta_5 d_4 + \mu_t$$

Where the dependent variable Y_t represents Jordan's real GDP growth (economic growth), $Y_{(t-1)}$ represents Jordan's lagged real GDP growth, log(FDI) represents the logarithm of Jordan's foreign direct investment flows, log(IR) represents Jordan's lending interest rates, and d_3 and d_4 are the incorporated dummy variables where d_3 represents the dummy variable associated with the turmoil of the Syrian crisis on Jordan and d_4 represents all the political shocks on Jordan, excluding the Syrian crisis. The coefficient θ_0 (theta) represents the intercept of the regression, $\theta_{1 \to 5}$ represents the coefficients of the independent variables, respectively and μ_t denotes for the regression's residuals.

3. Turkey's Regression

$$Y_t = \omega_0 + \omega_1 Y_{(t-1)} + \omega_2 \log(\text{FDI})_t + \omega_3 \log(IR)_t + \omega_4 \log(\text{EX})_t + \omega_5 \log(-CA)_t$$

$$+ \omega_6 d_5 + \omega_7 d_6 + \varepsilon_t$$

Where the dependent variable Y_t represents Turkey's real GDP growth (economic growth), $Y_{(t-1)}$ represents Turkey's lagged real GDP growth, log(FDI) represents the logarithm of Turkey's foreign direct investment flows, log(IR) represents the logarithm of Turkey's weighted average of the maximum interest rate applicable to Turkish Lira deposits, log(-CA) represents the logarithm of the negative of Turkey's current account deficit, log(EX) represents the logarithm of Turkey's exchange rate, and d_5 and d_6 are the incorporated dummy variables where d_5 represents the dummy variable associated with the impact of the Syrian crisis on Turkey and d_4 represents all the political shocks on Turkey, excluding the Syrian crisis. The coefficient ω_0 (omega) represents the coefficient of the intercept of the regression, $\omega_{1\rightarrow7}$ represents the coefficients of the independent variables, respectively and ε_t denotes for the regression's residuals.

Further, the purpose of applying OLS as the methodology to perform the above three regressions specified to each country, is primarily to compare the value and significance of the dummy variables' coefficients in order to quantify the impact of the Syrian crisis on Lebanon in comparison to other exogenous shocks that hit Lebanon's economy, and to quantify the impact of the Syrian crisis on Lebanon in comparison to its impact on both Jordan and Turkey.

B. Data and Statistics

The data employed in this thesis consists of annual time series variables with years varying over the period ranging from 1980-2013 depending on the availability of

data. The dependent variable Y_t that represents the real GDP growth, also specified as economic growth in Lebanon, Jordan, and Turkey in the three above mentioned regressions was retrieved from the International Monetary Fund, World Economic Outlook databases. Consequently, lagged Y_t was generated in the form of Y_{t-1} to test the significance of real GDP growth of previous years on the dependent variable. Moreover, data on foreign direct investment inflows was retrieved from UNCTAD stat databases and it's measured in millions of US dollars at current prices and current exchange rates. The data on current account for the three countries was retrieved from the International Monetary Fund, World Economic Outlook databases. Data on lending interest rates for Lebanon was retrieved from the World Bank databases and data on interest rates on loans and advances in Jordan was retrieved from the Central Bank of Jordan, statistical databases. As for Turkey, due to the unavailability of data on lending interest rates at the World Bank databases, the weighted average of the maximum interest rate applicable to Turkish Lira deposits (6-months deposits) was retrieved from the Central Bank of Turkey and employed in Turkey's regression. Similarly, data on Turkey's exchange rates was retrieved from the Central Bank of Turkey and employed in Turkey's regression as Turkey, unlike the other two countries, experienced several fluctuations in its exchange rate. For this reason, including the exchange rate in Turkey's regression is essential to check whether Turkey's exchange rate volatility had a significant impact on its economic growth. It is important to mention that time series data for Lebanon, Jordan, and Turkey on FDI, interest rates, current account, and exchange rates were subject to logarithmic transformation. In situations where the explanatory variables exhibit a non-linear relationship, logarithmically transforming those variables in a regression model is one common way to preserve the linear model, even if the relationship between one or more variables is non-linear (Benoit 2011).

112

As the main purpose of the thesis lies in showing the value and significance of the Syrian crisis spillover effects on Lebanon, Jordan, and Turkey, manually incorporated dummy variables were added to the three regressions. For each regression, two dummy variables were included. The first one was used to quantify the effect of the Syrian crisis on the economic growth in the three countries and the second one was used to quantify the effect of all other shocks, both exogenous and domestic, that hit each economy over the period ranging from 1980 to 2013. In Lebanon's regression that is shown above, the dummy variable d_1 takes the value of 0 for the period 1980-2010 and 1 for the years of the Syrian crisis 2011-2013, as the Syrian crisis started in the first quarter of the year 2011. Alternatively, the dummy variable d_2 takes the value of 0 in periods of no political instability and takes the value of 1 in the periods where domestic or exogenous shocks excluding that of the Syrian crisis, hit the economy. Accordingly, the dummy variable d_2 takes the value of 1 in each of the years 1983 (suicide attacks on US embassy), 1986 (internal civil war), 1988(war of camps), 1989(Aoun war against Syrian troops), 1990 (Syrian air force attacks and Syrian troops occupation), 1996(Operation grapes of Wrath – Israeli bombs on South Lebanon), 2005 (assassination of Hariri), 2006(Israeli war on Lebanon), and 2007 (siege of Palestinian refugee camp at Nahr al-Bared).

In Jordan's regression, data from the year 1990 to 2013 was employed so the dummy variable d_3 takes the value of 0 for the period 1990-2010 and 1 for the years of the Syrian crisis 2011-2013. Alternatively, the dummy variable d_4 takes the value of 0 in periods of no instability and 1 in each of the years 1996 (food price riots) and 2010 (mass demonstrations and street protests against lifting fuel subsidies and increased food prices).

As for Turkey's regression, the dummy variable d_5 takes the values of 0 for the

period 1980 -2010 and 1 for the years 2011-2013. Alternatively, the dummy variable d_6 takes the value of 0 in periods of no political instability and takes the value of 1 in the periods where domestic or exogenous shocks excluding that of the Syrian crisis hit the economy. Accordingly, the dummy variable d_6 takes the value of 1 in each of the years 1980(military coup and political unrest), 1993(Turkish and Kurds attacks), 1999 (bombs and attacks suspected by PKK[26]), 2001 (stock market crash due to political instability and corruption), 2009 (protests by PKK and clashes with police), 2013 (government corruption scandal).

1. Unit Root Tests

In an attempt to avoid the problem of spurious regressions and non-stationary variables that could influence the validity of the econometric statistical tests' analysis, unit root tests were implemented to all the variables, excluding the lagged GDP growth[27] and the dummy variables. The Unit Root test examines whether a time series variable is stationary or not using an autoregressive model. A time series is said to be stationary or integrated of order zero, I(0) if it reverts to a mean over time. On the other hand, a time series is said to be non-stationary, or integrated of order 1,I(1) if it does not have a constant mean. In this case, the variable is said to have a unit root. Hence, the unit root test is conducted to test for stationary variable, or lack thereof, of the different return series. In this context, the Augmented Dickey-Fuller (ADF) and Phillips Perron (PP) test types are conducted, where the null and the alternative are defined below:

H_0: Time series variable has a unit root i.e. non- stationary

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[26] PKK resembles the Kurdistan Workers' Party.

[27] As will be shown in the unit root results, the variable Y_t is stationary at levels, making Y(-1) stationary.

H_1: Time series variable does not have a unit root i.e. stationary

The ADF and PP unit root tests results at level and at first difference[28] are summarized for the retrieved time series variables in the below table. Both ADF and PP tests indicate that real GDP growth (Y_t) for Lebanon, Jordan, and Turkey is stationary at levels, where the null is rejected at the 1% significance level. However, the tests results for the variables log(FDI), log(IR), log(-CAD), and log(EX) indicate that the null cannot be rejected at neither the 1%, 5%, nor 10% significance levels. This suggests that the variables have a unit root and thus are non-stationary in the levels. Consequently, the variables were subject to first differencing and the unit roots in the first differences of the variables were rejected at the 1% significance level, suggesting that the variables are stationary at first level and integrated of the first order, I(1). However, the null could not be rejected for the variable log(IR) of Jordan's regression at first difference, indicating that the variable exhibits a unit root, even at the first level. For this reason, Jordan's log(IR) variable was subject to a second differencing, where the ADF tests results at second difference revealed a t-statistic of -3.729 and PP tests results at second difference revealed a t-statistic of -3.675 of which the null was rejected only at the 5% and 10% significance levels. The results suggest that Jordan's log(IR) variable is stationary at second levels, where it is integrated of the second order, I(2).

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[28] "A time series is integrated of order d (denoted as I(d)) if it must be differenced d times in order to induce stationarity" (Neaime 2011).

Table 12.Unit Root Tests - ADF and PP at Level and First Differences

Country	Time Series Variables	ADF at Levels	ADF at First Difference	PP at Levels	PP at First Difference
Lebanon	Y_t	-6.947***	-8.093***	-7.869***	-5.809***
	log(FDI)	-1.687	-6.665***	-1.754	-6.494***
	log(IR)	-0.457	-4.107***	-0.232	-8.500***
	log(-CAD)	-2.113	-4.491***	-2.281	-4.596***
Jordan	Y_t	-4.065***	-8.559***	-3.942***	-10.035***
	log(FDI)	-1.708	-8.6093***	-1.494	-9.0539***
	log(IR)	-1.966	-2.4815	-1.1296	-1.974
Turkey	Y_t	-6.559***	-6.836***	-7.921***	-23.886***
	log(FDI)	-1.808***	-6.933***	-1.843	-7.259***
	log(IR)	-0.34	-5.334***	-0.34	-5.334***
	log(EX)	-1.1829	-5.387***	-1.3038	-5.387***
	log(-CAD)	-0.01865	-8.171***	-2.1684	-12.020***

Where * denotes rejection of the null at 10% significance level, ** denotes rejection of the null at 5% significance level, and *** denotes rejection of the null at 1% significance level
Source: Author's estimates.

2. Correlation Matrix

In order to avoid the problem of correlation between the independent variables, correlation matrices were computedfor the three countries to ensure no multi-collinearitybetween the regressors, which is an important assumption prior to any regression analysis that involves OLS estimation. Statistically, multi-collinearity is a phenomenon in which two or more variables in a multi-variable regression model are highly correlated, in other words, one or more variables can be linearly predicted from the other, and thus exhibit a non-stochastic linear relationship. Moreover, the presence of multi-collinearity makes the estimate of regressors on the dependent variable less precise and un-reliable, than if regressors were un-correlated with each other. In this context, multi-collinearity causes the standard errors of the affected regressorsto be large, in that case hypothesis tests involving a null that specifies the coefficient equal to

116

zero may not be rejected resulting in a false null hypothesis indicating that the

independent-explanatory variable has no effect on the dependent variable. The below

tables depict the correlation matrix betweenregressors for Lebanon's, Jordan's, and

Turkey's modeled regressions, respectively.

- *Lebanon's Correlation Matrix*:

Table 13. Lebanon's Correlation Matrix

	Y	Y(-1)	Log(IR)	Log(FDI)	Log(-CAD)	D1	D2
Y	1	0.128207	0.18888	-0.26945	0.008664	-0.16876	-0.35802
Y(-1)	0.128207	1	-0.1575	0.236368	0.170989	-0.00203	-0.32488
Log(IR)	0.18888	-0.1575	1	-0.88201	-0.449062	-0.54728	0.00067
Log(FDI)	-0.26945	0.236368	-0.88201	1	0.536175	0.294913	-0.02015
Log(-CAD)	0.008664	0.170989	-0.44906	0.536175	1	0.49054	-0.37082
D1	-0.16876	-0.00203	-0.54728	0.294913	0.49054	1	-0.21822
D2	-0.35802	-0.32488	0.00067	-0.02015	-0.370816	-0.21822	1

Source: Author's estimates.

- *Jordan's Correlation Matrix*:

Table 14. Jordan's Correlation Matrix

	Y	Y(-1)	Log(FDI)	Log(IR)	D3	D4
Y	1	0.366271	0.15967	-0.33194	-0.26925075	-0.28461
Y(-1)	0.366271	1	0.252084	-0.26253	-0.161348022	0.099459
Log(FDI)	0.15967	0.252084	1	-0.55396	0.29385905	-0.08544
Log(IR)	-0.33194	-0.26253	-0.55396	1	-0.352401149	0.047779
D3	-0.26925	-0.16135	0.293859	-0.3524	1	-0.11396
D4	-0.28461	0.099459	-0.08544	0.047779	-0.113960576	1

Source: Author's estimates.

- *Turkey's Correlation Matrix*:

Table 15. Turkey's Correlation Matrix

	Y	Y(-1)	Log(FDI)	Log(IR)	Log(-CAD)	Log(EX)	D5	D6
Y	1	-0.02452	-0.19373	0.052256	0.101137281	0.153791	0.060987	-0.68475
Y(-1)	-0.02452	1	0.113229	-0.15652	0.05604002	-0.27196	-0.00889	-0.15529
Log(FDI)	-0.19373	0.113229	1	-0.75899	0.807422269	-0.66041	0.475053	0.165755
Log(IR)	0.052256	-0.15652	-0.75899	1	-0.76561515	0.785137	-0.63062	-0.16075
Log(-CAD)	0.101137	0.05604	0.807422	-0.76562	1	-0.61352	0.562795	0.081573
Log(EX)	0.153791	-0.27196	-0.66041	0.785137	-0.61352038	1	-0.51331	-0.14022
D5	0.060987	-0.00889	0.475053	-0.63062	0.562794547	-0.51331	1	0.169031
D6	-0.68475	-0.15529	0.165755	-0.16075	0.081573327	-0.14022	0.169031	1

Source: Author's estimates.

Since correlation coefficients are normalized covariance values, it ranges from -1 to +1. A correlation coefficient that is close to +1 indicates a direct relationship between two explanatory variables. Similarly, a correlation coefficient that is close to -1 indicates an inverse relationship between two explanatory variables. As shown in the above tables, the explanatory variables do not exhibit a high correlation among each other, in both directions. Thus, the variables do not exhibit perfect multi-collinearity among each other. However, highest correlations are obtained between interest rates and foreign direct investment flows, interest rates and current account deficits, and interest rates and exchange rates. Nevertheless, this shall not pose a problem to the regression results, as tests regarding residuals that prove stationarity of residuals and ensure reliability of the empirical results will be explored in the next section.

C. Empirical Results

1. Co-Integration Tests Results

After applying unit root tests to all the explanatory variables in the model as a preliminary step prior to employing the regressions, the next step is to check whether

the time series variables are co-integrated by applying the Johansen co-integration test to the variables in each of the country specific regressions. Co-integration testing is widely used in empirical analysis to check for economic inter-relations among variables by testing whether the series have different unit roots, i.e. non-co-integrated, or share the same unit root, i.e. co-integrated (Neaime 2011).

The existence of co-integration among variables implies that they would never drift too far apart, and even if they exhibit signs of non-stationarity, a specific linear combination that keeps them together might exists. In this context, co-integrated variables will possess a long run relationship.

Having at-least one co-integrated equations within a model is essential to avoid the problem of obtaining a spurious regression. In this case, regression results are misleading and incorrect and no indicative inference can be made using such results. For this purpose, exploring the possibility of a significant long run relationship between the variables in our model for each country is a necessary step to ensure that our regressions are not spurious. It is important to note that the Johansen co-integration test is performed for a linear deterministic trend in the data with no intercept and the 5% significance values are based on MacKinnon-Haug-Michellis (1999) p-values.

For the case of Lebanon, the Johansen co-integration test results for the variables Y_t, log(FDI), log(IR), log(-CA), d_1, and d_2, are shown in the below table. The null of having no co-integrated equations r=0[29] is rejected at the 5% significance level since the Johansen and Juselius (1990) trace statistic of 157.2378 is greater than the 5% critical value. Similarly, the null of having at most one co-integrated equations r≤ 1 is also rejected at the 5% significance level. The nulls of having more than two co-integrated equations could not be rejected at the 5% significance level indicating that

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[29] r refers to the number of co-integrating equations

there does not exist more than two co-integrating equations between the variables. Therefore, the Johansen and Juselius trace test for Lebanon indicates two co-integrating equations at the 5% significance level.

Table 16. Lebanon's Variables Co-integration Test Results

Hypothesis		Values	
Null	Alternative	Trace Statistic	5% Critical Value
r=0	r=1	157.2378*	95.75366
r≤ 1	r=2	73.38732*	69.81889
r≤ 2	r=3	33.23384	47.85613
r≤ 3	r=4	14.70981	29.79707
r≤ 4	r=5	5.867654	15.49471
r≤ 5	r=6	0.000232	3.841466

* denotes rejection of the null at the 5% significance levels
Source: Author's estimates.

For the case of Jordan, the Johansen co-integration test results for the variables Y_t, log(FDI), log(IR), d_3, and d_4, are shown in the below table. The null of having no co-integrated equations r=0 is rejected at the 5% significance level since the Johansen and Juselius (1990) trace statistic of 120.4063 is greater than the 5% critical value. Similarly, the null of having at most one co-integrated equations r≤ 1 is also rejected at the 5% significance level. The nulls of having more than two co-integrated equations could not be rejected at the 5% significance level indicating that there does not exist more than two co-integrating equations between the variables. Therefore, the Johansen and Juselius trace test for Jordan indicates two co-integrating equations at the 5% significance level.

Table 17. Jordan's Variables Co-Integration Test Results

Hypothesis		Values	
Null	**Alternative**	**Trace Statistic**	**5% Critical Value**
r=0	r=1	120.4063*	69.8188
r≤ 1	r=2	50.97928*	47.8567
r≤ 2	r=3	16.76329	29.79707
r≤ 3	r=4	2.212267	15.49471
r≤ 4	r=5	0.047037	3.84146

* denotes rejection of the null at the 5% significance levels
Source: Author's estimates.

As for the case of Turkey, the Johansen co-integration test results for the variables Y_t, log(FDI), log(IR), log(EX), log(-CAD), d_5, and d_6, are shown in the below table. The null of having no co-integrated equations r=0 is rejected at the 5% significance level since the Johansen and Juselius (1990) trace statistic of 167.2549 is greater than the 5% critical value. However, the null of having at most one co-integrated equations r≤ 1 is not rejected at the 5% significance level.

Table 18. Turkey's Variables Co-integration Test Results

Hypothesis		Values	
Null	**Alternative**	**Trace Statistic**	**5% Critical Value**
r=0	r=1	167.2549*	125.6154
r≤ 1	r=2	89.08766	95.75366
r≤ 2	r=3	60.90618	69.81889
r≤ 3	r=4	38.20064	47.85613
r≤ 4	r=5	19.80705	29.79707
r≤ 5	r=6	7.740226	15.49471
r≤ 6	r=7	1.230509	3.841466

* denotes rejection of the null at the 5% significance levels
Source: Author's estimates.

Similarly, the nulls of having more than one co-integrated equations could not be rejected at the 5% significance level indicating that there does not exist more than one co-integrating equations between the variables. Therefore, the Johansen and Juselius trace test for Jordan indicates only one co-integrating equations at the 5% significance level.

Hence, since the variables for each country exhibit at least one co-integrating equation, then OLS can be applied in our model and will not lead to a spurious regression.

2. Regression Results

In this section, the regression results for Lebanon, Turkey and Jordan, isdepicted and analyzed in table 19.The lagged real GDP growth for the three countries showed no significance in affecting economic growth. This implies that the real GDP growth of previous years does not have an impact on current economic growth in Lebanon, Jordan, and Turkey. The second variable employed in the regressions, that was expected to show a positive and significant impact on real GDP growth, is log(FDI). Nevertheless, the variable log(FDI) exhibited a negative relationship to real GDP growth that was not significant at any significance level. This could be attributed to the fact that current FDI inflows take time to materialize in current real economic growth. The third variable employed in the regressions is log(IR) which exhibited a significant and negative relationship to real GDP growth in both Lebanon and Jordan at the 1% and 10% significant levels, respectively. For Lebanon, a 1% increase in the lending interest rate causes real GDP growth to fall by 25.23%. Similarly, a 1% increase in the lending interest rate in Jordan causes real GDP growth to fall by 4.86%. Hence, any increase in the lending interest rates would cause a decrease in real GDP growth by

crowding out investments in the economy coupled with a decrease in money demand. However, interest rate changes in Turkey did not exhibit a significant negative relationship with its economic growth. Moreover, current account balances exhibit a significant positive relationship with real GDP growth in both Lebanon and Turkey at the 10% significance level. A 1% increase in current account balances contributes to 7.7% and 1.1% increase in real GDP growth for Lebanon and Turkey, respectively. Furthermore, since Turkey has a floating exchange rate regime and experienced fluctuations in its exchange rate in recent years, it was expected that the volatility of exchange rates to have a significant impact on real GDP growth. Nevertheless, the regression results depicted no significant impact of the fluctuations in exchange rate on Turkey's current economic growth.

For the purpose of analyzing the Syrian spillover effects on Lebanon's economic growth vis-à-vis other shocks that prevailed in earlier years and in comparison to the impact of the Syrian crisis on both Turkey and Jordan, the core aim of the empirical analysis is the inference over the dummy variables. In this context, empirical evidence shows that Lebanon's economic growth was enormously and significantly impacted by the Syrian crisis that has prevailed in the years 2011-2013 causing real GDP growth in Lebanon to fall by 26.38%, represented by d_1, which represents the turmoil of the Syrian crisis on Lebanon and is significant at the 5% significance level. Regression analysis also shows that the impact of the Syrian crisis on Lebanon had a larger negative effect on its economic growth when compared to all other political and domestic shocks that hit the economy between the years 1980-2013 which contributed to a significant 12.4% decrease in real GDP growth. Further, when comparing the impact of the Syrian crisis on Lebanon to its impact on both Jordan and Turkey by comparing the coefficients of the dummy variables d_1, d_3, and d_5, that take

the values of -0.2638, -0.0363, and 0.0152, respectively, it is evident that Lebanon

suffered the most from the Syrian crisis as d_1 is greater than both d_3 or d_5. In

comparison to Lebanon, Jordan also experienced significant restrained economic growth

of 3.63% as a result of the Syrian crisis. Nevertheless, the impact on Jordan's real GDP

growth remains small when compared to the Syrian crisis impact on Lebanon that

caused a 23.38% decrease in Lebanon's real GDP growth. The overall effect of the

Syrian crisis on Jordan's economic growth is approximately equivalent in value and

significance to the effect of all other domestic shocks that hit Jordan's economy

between the years 1990-2013. This is shown by the coefficient of the dummy variable

d_4 of -0.362, which is significant at the 10% significance level.

Table 19.RegressionResults

Lebanon		Jordan		Turkey	
Variables	**Coefficient**	**Variables**	**Coefficient**	**Variables**	**Coefficient**
β_0	1.4243***		-0.1550		0.1569
	(0.4334)		(0.1040)		(0.0927)
$Y_{(t-1)}$	0.1325	$Y_{(t-1)}$	0.1611	$Y_{(t-1)}$	-0.05184
	(0.1489)		(0.1355)		(0.1292)
log(FDI)	-0.051	**log(FDI)**	-0.000610	**log(FDI)**	-0.0127*
	(0.0167)		(0.000320)		(0.00635)
log(IR)	-0.2523***	**log(IR)**	-0.09014*	**log(IR)**	-0.007195
	(0.0823)		0.048697		(0.0197)
log(-CA)	0.07730*	d_3	-0.036373*	**log(-CA)**	0.01176*
	(0.0393)		(0.01816)		(0.00609)
d_1	-0.26383**	d_4	-0.036226*	**log(EX)**	0.00124
	(0.0968)		(0.0194)		(0.00177)
d_2	-0.12401**			d_5	0.01522
	(0.0537)				(0.0201)
				d_6	-0.07681***
					0.01790

Where *denotes the significance of the coefficient at 10% significance level, ** at 5%
significance level, and *** at 1% significance level, and the number in parenthesis
under each coefficient indicates the standard error.
Source: Author's estimates.

As for Turkey's case, empirical analysis reveals no evidence regarding the effect of the Syrian crisis on Turkey's economic growth as the coefficient of the dummy variable d_5, which represents the turmoil of the Syrian crisis is not significant at the 1%, 5%, or the 10% significance levels. On the contrary, all other political shocks that hit Turkey's economy between the years 1980-2013 had contributed to a significant 7.68% decrease in economic growth, where this value is the coefficient of the dummy variable d_6 and is significant at the 1% significance level. This indeed goes in line with the current political and economic situation in Turkey. Whereas spillover effects resulting in economic loss were widely observable in Lebanon and Jordan, the Syrian crisis had little effect on the economy of Turkey. Yet, the crisis only catalyzed prevalent political instability in Turkey, especially concerning the Kurds' movements there.

3. Residuals Unit Root Tests

Finally, in order to affirm that the OLS regression results are indicative for inference, unit root tests for the residuals of the three country- specific regressions were applied. Results of the ADF and PP unit root tests on the residuals are shown in table 20..Results show that the null which states that the residuals have a unit root and are non-stationary at levels is rejected for Lebanon's, Jordan's, and Turkey's regression residuals, respectively, at the 1% significance levels. Hence, the results imply that residuals are stationary at levels.

As a result, all our OLS estimates are unbiased and consistent estimators of the parameters. Therefore, the employed regressions are correctly specified and our empirical analysis of the regression results is indicative and reliable.

Table 20. Residuals Unit Root Tests – ADF and PP at Levels

Residuals	ADF at Levels	PP at Levels
ϵ_t	-6.6152***	-6.6152***
μ_t	-7.1365***	-12.634***
ε_t	-5.2033***	-5.3239***

Where *** denotes rejection of the null at the 1% significance level
Source: Author's estimates.

D. Interpretation of Empirical Findings and Policy Recommendations

The ongoing conflict in Syria has posed several political, social, and economic challenges to the region. As a result of the crisis, the large-scale and rapid influx of refugees to neighboring countries, including Lebanon, Jordan, and Turkey, has caused extensive pressure on host economies with varying degrees of negative spillover effects. It comes with no surprise that Lebanon, which already suffered from weak government finances, has been the most impacted host. Since the uprising of the crisis, the Lebanese government declared a policy of "dissociation" with an aim of keeping the country outside the conflict. Also, the Lebanese government has declared that its border with Syria will remain open assuring that Syrian refugees will not be returned, even though the government has not ratified the 1951 UN Convention on refugees.[30](Ferris et al, 2013) Nevertheless, the historical strong ties which bind Syria and Lebanon together, coupled with a large inflow of Syrian refugees, have dragged, to a certain extent, Lebanon within the conflict as clashes and bomb fires already exacerbated in several regions across Lebanon, including its capital, Beirut. In such a way, the Syrian crisis has imposed a heavy toll on Lebanon's economy through the insecurity and uncertainty spillover channels which profoundly and negatively impacted consumer, as well as,

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[30] The 1951 UN Convention is one that established a system of international protection to needed refugees.

investor confidence in the economy (World Bank 2013). As the empirical evidence in this thesis shows, Lebanon's overall economic growth has been restrained by 26.38% as a result of the Syrian crisis. Spillover effects include but are not limited to, successive losses to the pillar economic sectors such as tourism and real estate, losses in investment opportunities, rising unemployment and inflation rates, limited economic transactions, and disrupted trade routes which impacted exports.

When compared to the impact of other political and domestic shocks on Lebanon's economy, that as discussed in the regression results, caused a 12.4% fall in real GDP growth, the Syrian crisis' impact outweighs the effects of all other shocks that prevailed in the last thirty years. The results show that while domestic shocks also have negatively impacted the economy, the economy's capacity of recovering was larger, taking into consideration a limited population growth of 1.6% during the period 1980-2013. In addition, Lebanon has hosted since earlier decades Palestinian refugees, which amounted to be around 442,000 by early 2013. However, most Palestinian refugees reside in Palestinian refugee camps. For this reason, the Syrian crisis added to the existing pressure Lebanon as a whole faces, with an increased demand on shared public, as well as, private services, primarily as a result of the large inflow of Syrian refugees who currently make up 25% of the Lebanese population.

When compared to the impact of the crisis on Jordan and Turkey, where both countries also faced several financial and political pressures due to the large inflow of refugees and are concerned with the spillover effects on their national security, both countries adopted different policies than Lebanon, limiting the extent of the spillover effects on them. Turkey has built one of the best refugee camps in the world during which more than half of the Syrian refugees live in them and are offered food, shelter, and education services. Likewise, Jordan has built one large camp which houses more

than 100,000 refugees, and smaller camps have been built within the country to support refugees. On the contrary, Lebanon has resisted establishing camps where refugees dispersedly reside throughout the country in various legal and illegal housing alternatives (Ferris *et al.* 2013). This policy, though generous, has added pressure on Lebanon's economy, by exerting upward pressure on food and rental housing prices, contributing to rising inflation rates, which negatively affects real GDP growth. As the empirical evidence in this thesis shows, the Syrian crisis has also negatively and significantly impacted Jordan's economy, restraining real GDP growth by 3.63%. The spillover effects of the Syrian crisis came in already challenging macroeconomic conditions. In the year 2012, Jordan sought an emergency loan of USD 2 billion from IMF to deal with a cash flow crisis in the country, on the condition of eliminating fuel subsidies. This condition has led to a 50% increase in fuel prices which disrupted the macroeconomic environment and drove mass demonstrations and protests against lifting fuel subsidies. In this context, the Jordanian domestic economic shock in the year 2012 has caused an equivalent negative and significant impact on the economy, shedding real GDP growth by 3.62%. Under these economic conditions, the large inflow of Syrian refugees has added pressure on the Jordanian economy as the Syrian refugees are blamed for shortages of goods, rising prices, increasing rental costs, and increasing un-employment (Ferris *et al.* 2013).

Apart from the economic challenges, the Syrian crisis also threatens Jordan's stability as movement of weapons and fighters along the Jordanian-Syrian border is taking place, given the two hundred kilometers distance between Damascus and Amman as the Jordanian government is concerned about the threat of extremists crossing the border and threatening Jordan's security. Concerning Turkey, empirical evidence in this thesis shows that the Syrian crisis did not significantly affect Turkey's

economy, while Turkey's political and domestic shocks have negatively and significantly affected its economy. Even-though Turkey was one of the first countries to host refugees and openly support revolts against the Assad regime, Turkey's political and social situation were affected mostly from the Syrian crisis. Turkey's open political position has raised concerns over its relations with Syria and the region. Also, the crisis has impacted Turkey's Kurdish problem in the country. The Turkish government has faced criticism within the region about its political position, which undermined Turkey's goal of achieving high economic growth within emerging markets and the region. The Syrian crisis did not significantly and negatively affect Turkey's economic growth as the government initiated several policies to limit the large inflow of Syrian refugees within the country. Moreover, official crossings controlled by the Syrian Kurdish Forces have been closed (Ferris *et al*. 2013). Similarly, the Jordanian government was denying entry to Syrians, even to those having valid identity documents in order to limit the inflow. Furthermore, Jordan has imposed restrictions against the entry of single young men and Palestinians. However, if Jordan's situation is fragile, Lebanon's overall situation is the most vulnerable across the two countries coupled with the fact that Lebanon received less international support than Jordan and Turkey (Ferris *et al*. 2013). The political Syrian spillover effects ignited several sectarian conflicts in Lebanon, yet the Lebanese government did not impose any restrictions regarding the Syrian refugees flow. It maintained the open-border policy and did not implement policies that would help manage existing refugees more effectively. In this context, Lebanon proves to be the most vulnerable and affected country from the spillover effects of the Syrian crisis as more than a million Syrian refugees have already strained social, economic, and political conditions within the country. Even-though the Lebanese government, as well as, international aid agencies have provided short-term

support to refugees, the continuous growing number of refugees coupled with inadequate international support threatens Lebanon's overall stability and leads to a humanitarian catastrophe for both Lebanese citizens and Syrian refugees, hindering economic conditions, and thus, worsening social welfare.

In this context, several policy reforms must be implemented to decrease the burden of the Syrian refugees on Lebanon's overall macroeconomic conditions. The Lebanese government and authorities must:

- Manage the Lebanese-Syrian borders effectively to limit transfer of weapons and smugglers that affect confidence in the country.

- Restrict inflow of refugees as already more than a million reside within Lebanon.

- Establish camps to support Syrian refugees and provide them with shelter to ease the pressure on food and rental prices.

- Develop shelter strategies for existing and new refugees to ensure that housing contracts between NGOs, landlords, and refugees are enforced.

- The Lebanese government should enhance investment in infrastructure attempting to reinforce economic resilience within Lebanon (Dardari 2013).

- Create employment opportunities and stimulus packages that support the Lebanese employment and limit employment occupations of Syrians in an attempt to decrease Lebanon's unemployment rate.

- Promote security stability within the country to encourage foreigners in visiting Lebanon and boost the tourism sector.

- Expansion of UNHCR strategies to ensure registration for Syrian refugees and increase protection to the most vulnerable groups to decrease the burden on public services.

CHAPTER V

CONCLUSION

As the vast literature shows, political instability in neighboring countries has a strong and adverse effect on economic performance. Empirical analysis suggests that regional political instability has a significant negative impact on the economic growth of neighboring countries. In this thesis, the macroeconomic analysis of the spillover effects of the Syrian crisis on Lebanon depicts how the regional political instability arising from the Syrian civil war which commenced in early 2011, contributed to reversing the upward trend in Lebanon's growth witnessed in earlier years, resulting in a stagnant restrained economic growth since the uprising of the crisis. The analysis of Lebanon's key macroeconomic indicators reveals that Lebanon experienced rising unemployment and inflation rates. The large Syrian refugee inflow seeking food, shelter, and income to support their households, has added upward pressure on prices of necessity products and rental costs, raising inflation rates, and negatively affecting economic growth. Also, refugees have sought several employment opportunities, as their savings get strained pressuring labor markets that witnessed a rising labor supply, and contributed to raising informal employment and unemployment rates within Lebanon's labor force. Moreover, as the Syrian conflict escalated, Lebanon was dragged in several bombings and clashes across its regions, hampering its security and stability, which caused several countries to ban its citizens from visiting Lebanon. Under this scenario, Lebanon's tourism revenues have dropped as the number of tourists' arrivals and hotel occupancy rates declined. Investment appetite was hindered, specifically in property investments, as the real estate sector witnessed a decline in its volume and

value of transactions and sales to foreigners. The armed Syrian conflicts across several Syrian regions close to Lebanon has caused a disruption in trade routes, affecting Lebanon's exports, and contributing to widening deficits in trade, current account, and balance of payments. Lebanon's government budget balances that were already in deficit have been further weakened, as the large inflow of refugees contributed to increase demand on public services.

Furthermore, a cross border analysis of the Syrian crisis on Jordan's and Turkey's economies depicts varying degrees of negative spillover effects. The regional turmoil caused by the Syrian crisis has exacerbated Jordan's already low economic growth and fragile fiscal position. Jordan also welcomed a large refugee inflow who added pressure on its key macroeconomic indicators during which the government had to reallocate its scarce resources in order to meet the sudden increase in demand on food, shelter, and public services. Prior to the Syrian crisis, Jordan has suffered from the lowest growth rates in the last decade. In this context the Syrian crisis has reversed economic growth prospects and delayed Jordan's economic recovery by affecting consumer and investor confidence, tourism and remittances revenues, government budget deficits, as well as, trade deficits, and rising inflation rates.

Moreover, the macroeconomic analysis of Turkey's economy shows that Turkey's slowdown in economic growth cannot be fully attributed to the spillover effects of the Syrian crisis. In the midst of the euro-debt crisis and the global economic slowdown coupled with the escalating regional political tensions from the Arab spring turmoil, Turkey's Central Bank conducted a tight monetary policy aiming to narrow down high inflation rates which largely broke the economic expansion trend that prevailed earlierand affected investors' incentives in Turkey's economy. Also, Turkey has witnessed a recent governmental corruption scandal, which delayed economic

recovery and caused the exchange rate to depreciate, as decreased confidence in the economy caused large capital outflows. In this context, Turkey's economy has been affected by several shocks at once, inflicting slowdown in economic growth.

The empirical analysis in this thesis proves that Lebanon's economic growth was negatively and significantly impacted by the Syrian crisis. Empirical evidence shows that 26.38% of the fall in Lebanon's real GDP growth is attributed to the turmoil of the Syrian crisis on Lebanon, while 12.4% of the decrease in economic growth is attributed to previous external and internal political shocks. In this context, results clearly depict that the negative effect of the Syrian crisis on Lebanon's economy is more than double the negative effect of all previous political shocks that hit its economy in earlier years. Further, empirical results show that, in comparison to Jordan and Turkey, Lebanon suffers the most from economic slowdown as a result of the Syrian crisis, during which Jordan's real GDP growth was significantly shed by 3.63% while the effect of the Syrian crisis on Turkey's economy was not significant.

It comes with no surprise that Lebanon is the most vulnerable country and most affected vis-à-vis Jordan and Turkey. Unlike Jordan and Turkey, the Lebanese government did not impose any restrictions over the entry of refugees and maintained its open border policy since the uprising of the crisis. Also, Syrian refugee camps have not been established, and so refugees reside dispersedly among the Lebanese, adding pressure to public and private services and weakening the government's fiscal position, as it strives to meet a higher demand. The Syrian crisis and its political and economic setbacks on Lebanon have challenged both countries and imposed a heavy toll on people's welfare conditions. What's even more alarming is that three years have already passed since the uprising of the crisis and the end of the crisis is still uncertain. The uncertainty impelled by the prolonged Syrian civil war and the political instability

within Lebanon affectsits economic prospects as it is forecasted that Lebanon will grow at a moderate rate in the coming years that is fairly below historical trend rates and will need several years to restore the pre-crisis economic potentials.

APPENDIX I

STATISTICAL

1. Syria's Current Account Balance

(USD million)	2009	2010	2011	2012	2013	2014	2015
Exports of Goods	10884	12273	10288	3876	2,675	2,804	2,952
Imports of Goods	-12,948	-15,936	-17,598	-10,811	-8,495	-8,607	-9,104
Trade Balance	-3,064	-3,663	-7,310	-6,935	-5,821	-5,803	-6,152
Services Balance	2,079	3,860	429	32	-456	-301	-124
Income Balance	-1,107	-1,514	-1,682	-872	-501	-440	-430
Current Transfers Balance	1,062	950	837	1,035	1,364	1,792	1,898
Current Account Balance	-1030	-367	-7726	-6740	-5413	-4752	-4808

2. Lebanon's Current Account Balance

(USD Million)	2009	2010	2011	2012	2013
Services Balance	2,867	3,006	6,709	9,991	9,538
Primary Income Balance	-228	-509	-174	391	-412
Secondary Income Balance	1,827	2,450	2,525	2,667	2,342
Current Account Balance	-6,741	-7,552	-4,859	-1,663	-3,536

3. Jordan's Current Account Balance

(USD Million)	2009	2010	2011	2012	2013
Services Balances	738	1183	666	1143	1146
Primary Income Balance	508	-91	-180	-305	-203
Secondary Income Balance	3,784	2,828	4,873	4,351	7,310
Current Account Balance	-1,245	-1,885	-3,473	-5,370	-3,467

4. Jordan's foreign grants

(USD Million)	2007	2008	2009	2010	2011	2012	2013
Government Grants	243.4706	509.2747	236.3806	284.8053	861.435	439.58	602.65

5. Turkey's FDI from Asia, Europe, and USA

(USD Million)	2007	2008	2009	2010	2011	2012
EUROPE	12,974	11,368	5,248	4,939	12,587	7,925
America	4,717	951	331	384	1,485	491
Asia	1,405	2,345	673	928	2,055	2,337

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