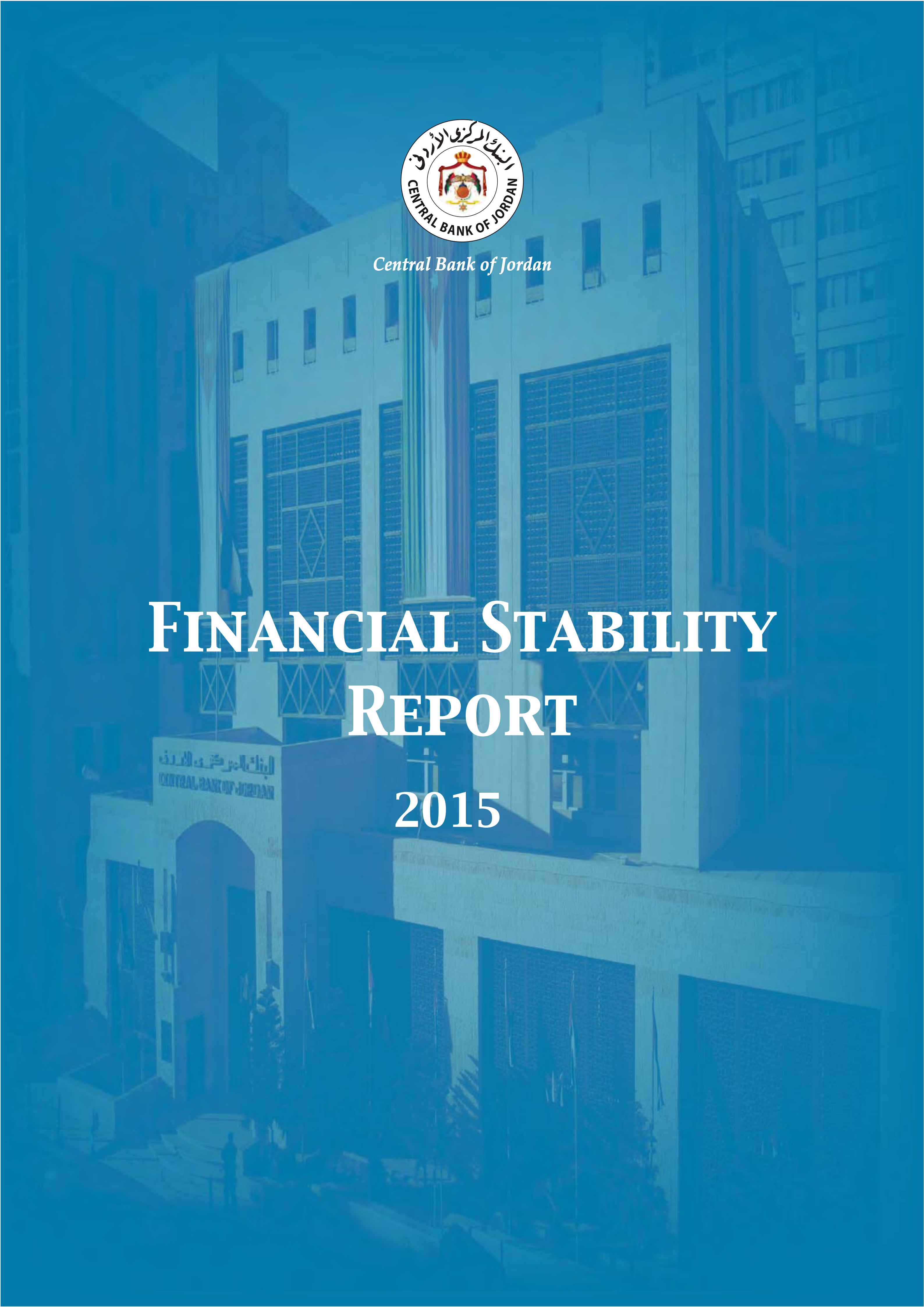
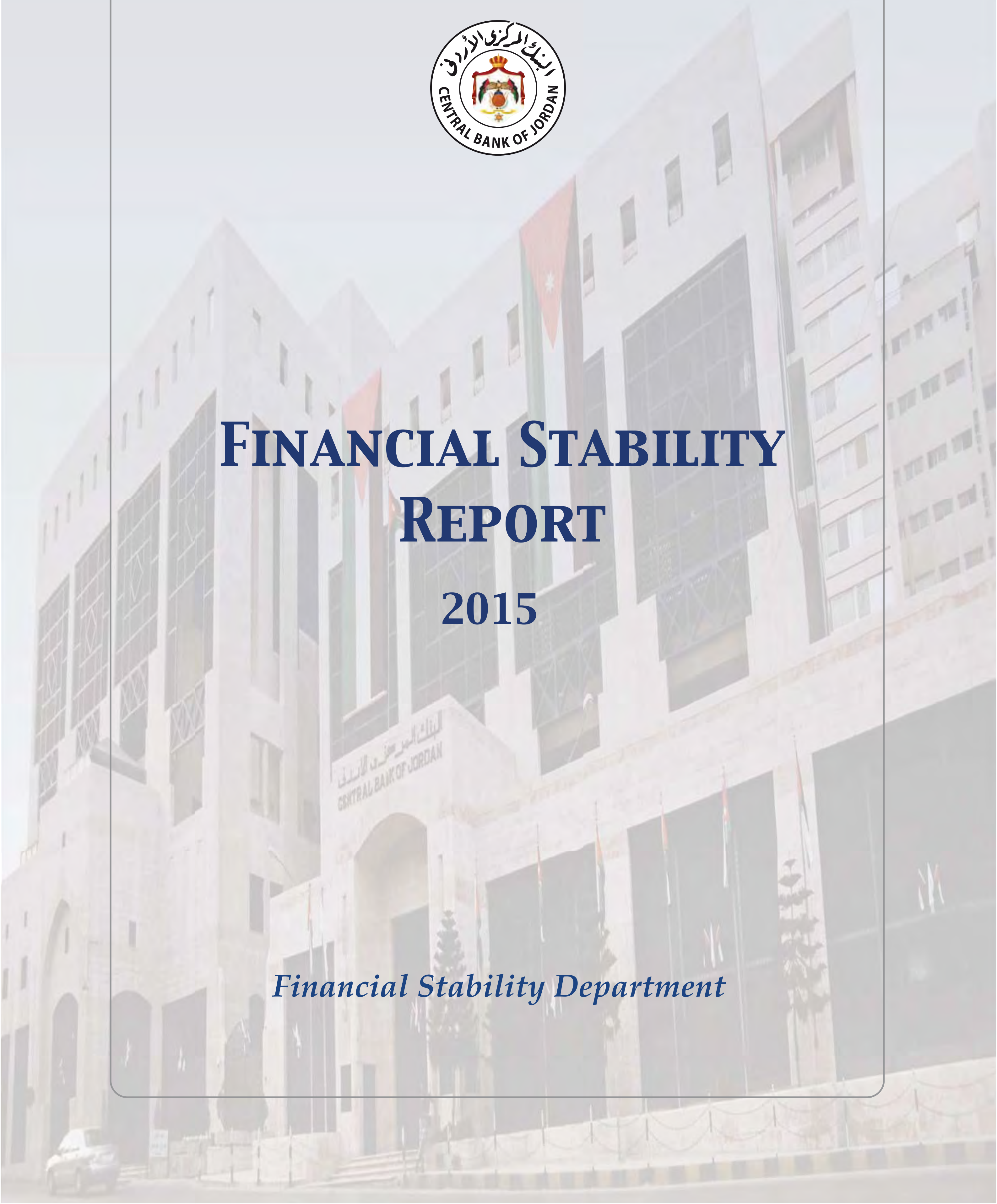


Central Bank of Jordan

Financial Stability Report

2015



Financial Stability Report

2015

Financial Stability Department

PREFACE

The 2015 Financial Stability Report (**JFSR2015**) is the fourth report issued after the establishment of the Financial Stability Department at the Central Bank of Jordan (CBJ). This report has been issued as part of CBJ's efforts in enhancing the stability of the financial and banking sector in Jordan and in providing a comprehensive database of various aspects of the economy and financial sector in Jordan. Pertinent to the new Law of the Central bank of Jordan for the year 2016, the objectives of the CBJ are extended to include explicitly financial stability besides monetary stability. Financial stability aims at strengthening and enhancing the capacity of banks and other financial institutions to withstand risks and to limit any structural imbalances.

The JFSR2015 consists of seven chapters. Chapter One highlights **Domestic and International Economic and Financial Developments and Outlook**. The chapter showed that, during 2015, the global financial system witnessed an increase in the risks that threaten its stability, accompanied by the loss of confidence and the surge in turbulences in the global financial market. The global recovery continues, but fragilely and at an increasingly slower pace due to the decrease in the demand for investment and the deceleration in the economic growth in the advanced economies, besides noneconomic factors, mainly political and geographic developments. The chapter concluded that despite the negative developments that affected the region and the world during 2015, which touched the economic, political and social conditions in a number of countries around the world and which was reflected on increasing the challenges that Jordan is facing, the government policies and the CBJ policies both have helped reduce the effects of these challenges, and, hence, helped maintain economic, monetary and financial stability in Jordan. The chapter also briefed the position of Jordan comparatively with the world countries in the transparency, anticorruption, human development and competitiveness indices.

The second chapter about the **Infra and Legislative structure of the Financial System** shows the most important procedures that the CBJ has taken in developing the infrastructure and the legislations of the financial system and promoting financial inclusion in the Jordan. The chapter detailed the efforts of the CBJ in cooperation with other relevant parties in the public and private sectors to prepare a national strategy for financial inclusion that aims at promoting the access of all segments of community to the financial services provided by the “formal” financial sector, so that these services are delivered fairly, transparently and accountably through several major pillars that includes improving the access to finance, especially for the SMEs, developing microfinance sector, spreading financial literacy in the community, enhancing financial consumer protection and developing payment, clearance and settlement systems. The chapter also highlighted the supervisory amendments that the CBJ performed during the years 2015 and 2016, especially amending the old CBJ law into the new Central Bank Law No. 24 of 2016, the Exchange Law No. 44 of 2015 and the Electronic Transactions Law No.15 for 2015. These legislative developments were issued to keep pace with the latest developments and global best practices and experiences with regard to the role of central banks in achieving monetary and financial stability and developing electronic payment and clearing systems.

Chapter three describes Jordanian **Financial Sector Developments and Risks**. The chapter stated that in spite of the political and economic risks in the region, the banking system in Jordan was generally capable of maintaining the resilience and the soundness of its financial positions that witness continual improvements. The chapter also highlighted the major financial developments for the nonbank financial institutions like insurance companies, microfinance companies, financial leasing companies, exchange companies and the Social Security Corporation (SSC). For the SSC, the highlights also included its investments that are diversified to financial and nonfinancial assets.

Chapter Four describes Jordanian **Non-Financial Sector Developments and Risks**, including both household and corporates. The chapter of this JFSR2015 confirms the result outlines in JFSR2014 that the household debt-to-income ratio and household debt-to-wealth ratio both have been witnessing a continuous rise during the last six years, signaling a rise in the lending (credit) risks in this sector as a result of the rise in household indebtedness at higher rates than the growth of their income and net wealth. This in turn entails on the banks to be cautious of the risks emerging from lending to this sector and consider the evolution of these risks when deciding to expand the granting of credit to it. Regarding the nonfinancial corporate sector, the service and manufacturing companies maintained the stability of their financial positions despite the tight political and economic conditions in the region and its impact on Jordan. Regarding the real estate sector, it witnessed a remarkable decline in its size of business and profits, which increases the credit risk for the lenders to this sector. However, the decline in the size of its indebtedness to banks reduces the risk of exposure to this debt.

Chapter Five includes a detailed analysis of the **Exposure of Banking System to Real Estate Market Risks & the Real Estate Price Index**. The real estate credit facilities and the facilities collateralized by real estate exceeded 35.6% of total credit facilities granted by banks. Despite being high, the estimated value of the mortgaged real estate exceeds the size of the credit extended by a comfortable margin as the value of the real estate collaterals formed 151.0% of real estate credit facilities, which helps enable the banks confront the risks that might emerge from granting such credit. Regarding the real estate price index (REPI), the analysis revealed that the rise in the real estate prices does not significantly exceed the general inflation rates. Besides, the increase in real estate prices witnessed a slowdown in 2015 in line with the price deflation. Therefore, the rise in the real estate prices is considered normal at the present time. However, considering the high household indebtedness relative to income and wealth, the banks need to take these risks into account when considering the expansion of the credit extended to household in particular and for real estate purposes in general.

Finally, Chapter Six on **Stress Testing** shows the stress testing results that are used to assess the ability of banks to withstand Shocks. The results reveal that the banking system in Jordan is generally capable of withstanding shocks and high risks due to the banks' high levels of capital that are considered the highest in the MENA region.

Finally, Chapter Seven includes **Special Topics**. It includes two special topics: **The Impact of the Application of Basel III Standards on the Banking System in Jordan** and **The Effect of Oil Prices Decline on Financial Stability in Jordan**. The first topic concludes that the banks in Jordan are not expected to face any problems or difficulties in implementing Basel III capital requirements due to their sufficiently high CARs that are the highest in the region, besides the possession of high-quality Tier1 capital, of which most are CET1. For the second topic, the decline in oil prices is not expected to have a negative impact on financial stability in Jordan. On the contrary, based on the results of the econometric analysis above, it is expected that the decline in oil prices will have a positive, but modest, impact on financial stability in Jordan. This is attributed to the fact that the decline in oil prices raises the personal disposable income, and hence, enhances their ability to pay their debt to banks and financial institutions. This magnitude of the impact, however, differs by the length of the decline period, the effect of decline and the ultimate effect on workers' remittances and economic growth in Jordan.

The CBJ will keep on developing its Financial Stability Report and taking into consideration the developments of risks at local, regional and global level to enhance the safety and soundness of the banking sector in Jordan. The **JFSR2015** is published online on the CBJ's website http://www.cbj.gov.jo.

Dr. Ziad Fariz

Table of Contents

List of Figures

List of Tables

EXECUTIVE SUMMARY

During 2015, the global financial system witnessed an increase in the risks that threaten its stability, accompanied by the loss of confidence and the surge in turbulences in the global financial market. The global recovery continues, but fragilely and at an increasingly slower pace due to the decrease in the demand for investment and the deceleration in the economic growth in the advanced economies, besides noneconomic factors, mainly political and geographic developments. The world economy witnessed a growth in GDP of 3.1% in 2015, compared to 3.4% in 2014. The slowdown in global economic growth is mainly due to the narrowing of the growth rates spread of the emerging markets and developing economies and the advanced economies.

Despite the several political and economic problems that the Middle East region is facing that impacted the Jordanian economy as a small open oil-importing emerging economy, the Jordanian economy continued its satisfactory performance through the appropriate monetary and fiscal policies actions and measures that helped maintain economic and monetary stability relatively through maintaining positive economic growth rates and high levels of foreign reserves despite the continuous decline in price levels that is attributed mainly to the decline in oil prices. The real GDP attained a moderate growth in 2015 of 2.4%, which is far lower than the projected number of 3.8%. The year 2015 realized unfavorable trends in some economic indicators compared to 2014 due to the exacerbation of the regional circumstances and the closure of borders with Iraq and Syria. Of which the main developments are the increase in the budget and current account deficit, the decrease in total merchandize exports and the increase in debt. The improved economic conditions in USA relative to the rest of the world enhanced the strength of the US Dollar, which could consequently affect the competitiveness of the Jordanian economy adversely. This entails on the economic policymakers to keep adopting a prudent monetary policy and undertake structural reforms to improve the competitiveness of the Jordanian economy.

Regarding the banking and financial sector in Jordan, it is generally stable. Jordan enjoys a sound and solid banking system that is capable of withstanding the shocks and high risks due the high and satisfactory levels of capital that are the highest in the Middle East and North Africa (MENA) region, in addition to the comfortable levels of liquidity and profitability. The licensed banks are the bulk of the financial sector in Jordan whose assets totaled JD48.0 billion at the end of 2015. Of which the assets of licensed banks formed 94.1%. Compared to the other countries in the region, the relative size of the banking system in Jordan to the size of the economy is considered large. The licensed banks' assets reached JD 45.2billion at the end of 2015, forming 169.7% of GDP. Regarding the banks' reaction to the demand for credit, an improvement was achieved as the percentage of rejected credit applications declined from 15.8% in 2014 to about 15.0% in 2015. These compare to 26.8% in 2012. Overall, these results are expected due to the tight economic situation in Jordan in 2012 and the later relative improve in the succeeding years.

Following are some indicators that signify the resilient and sound financial system and its ability to withstand shocks and high risks:

The banking system in Jordan has high capital adequacy ratio that is the highest in the MENA region (after the United Arab Emirates). Capital adequacy ratio (CAR) of the banking sector in Jordan ranged between 18.0% and 21.0% during the years 2007-2015. It is generally higher by a comfortable margin, than the limit set by the CBJ of 12.0% and the limit specified by Basel Committee of 8.0%. The CAR increased to 19.1% at the end of 2015 from 18.4% at the end of 2014.

Concerning the ratio of non-performing loans to total loans, it continued its downward trend at the end of 2015 to touch 4.9% compared to 7.7%, 6.8% and 5.6% at the end of 2012, 2013 and 2014 respectively. The coverage ratio for the non-performing loans reached about 75.0% at the end of 2015. In this regard, Jordan ranked in the middle among some selected countries in the region.

Jordanian banking system enjoys a safe liquidity position as highly liquid assets formed about 52.0% of total assets at the end of 2015, which is the same percentage relatively at the end of 2014, which reflecting a relative stability in the level of banks' liquidity.

The rate of return on assets (ROA) of the banking system in Jordan reached 1.3% in 2015 compared to 1.4% in 2014. Regarding the return on equity (ROE) approximated 10.3% at the end of 2015 compared to 11.0% at the end of 2014. This decline is attributed mainly to the increase of tax rate on banks' income from 30.0% in 2014 to 35.0% in 2015.

The decreasing concentration level and the increasing competitiveness in the banking sector, the assets of the largest five banks out of 25 banks approximated 53.9% of total assets of the licensed banks at the end of 2015, compared to about 60.0% ten years ago. The reason for the improvement in these competitiveness indicators is the improvements and developments in banks' products to increase their competitive capabilities, besides the licensing of three new banks during 2009.

Stress testing results that are used to measure the ability of banks to withstand the shocks and high risks that they might encounter showed that the banking system in Jordan is generally capable to withstand shocks and high risks. A hypothetical scenario that assumes mainly the exacerbation of surrounding situation in the region and the continuous decline in oil prices was put. Consequently, these developments will adversely impact the financial situation in the Gulf region, and will, in turn impact Jordan as a decline in the remittances of Jordanians working in the Gulf, a decline in grants and aid to Jordan from the Gulf countries, and a decline of capital inflow from tourism and direct investment. In turn, this will lead to economic slowdown and decrease in economic growth rates, increase in unemployment rates and the contraction of the financial market. Stress testing results showed that the capital adequacy ratio for the years 2016, 2017 and 2018 are expected to be 17.0%, 14.1% and 12.1% respectively. This means that, assuming the occurrence of the worst case scenario, the capital adequacy ratios will be higher than the minimum applied in Jordan of 12.0% and the minimum 8.0% of BCBS.

Regarding the non-financial sector developments and risks, the household debt-to-income ratio and household debt-to-wealth ratio both have been witnessing a continuous rise during the last six years as they approximated 69.0% and 60.0% at the end of 2015 respectively, compared to 54.0% and 38.0% respectively at the end of 2010, signaling a rise in the lending (credit) risks in this sector as a result of the rise in household indebtedness at higher rates than the growth of their income and net wealth. This in turn entails on the banks to be cautious of the risks emerging from lending to this sector and consider the evolution of these risks when deciding to expand the granting of credit to it.

On another strand, the nonfinancial corporate sector, particularly service and manufacturing companies, maintained the stability of their financial positions as indicated by increasing their assets and profits despite the tight political and economic conditions in the region and its impact on Jordan, whereas the real estate sector witnessed a remarkable decline in its size of business and profits, which increases the credit risk for the lenders to this sector. However, the decline in the size of its indebtedness to banks reduces the risk of exposure to this debt.

Regarding the real estate sector in Jordan and the exposure of banking system to real estate market risks, the real estate credit facilities and the facilities collateralized by real estate exceeded 35.6% of total credit facilities granted by banks. Total credit facilities granted to the real estate sector for commercial and residential purposes reached JD4.53 billion at the end of 2015, accounting for 22.4% of the total facilities granted by banks, compared to JD3.94 billion at the end of 2014, at a growth rate of 15.0%. Despite being high, the estimated value of the mortgaged real estate exceeds the size of the credit extended by a comfortable margin as the value of the real estate collaterals formed 151.0% of real estate credit facilities, which helps enable the banks confront the risks that might emerge from granting such credit. Regarding the real estate price index (REPI), the analysis revealed that the rise in the real estate prices does not significantly exceed the general inflation rates. Besides, the increase in real estate prices witnessed a slowdown in 2015 in line with the price deflation. On another strand, the CBJ continued monitoring the developments in the ratio of loan to the value of the mortgaged real estate due to its importance in evaluating the degree of exposure of banks to the real estate market. The LTV ratio maximum limit in the licensed banks in Jordan averaged 85.0%. In this regard Jordan ranks fifth among 13 selected countries, the actual average approximated 66.0% at the end of 2015. This implies that despite the high limit of financing that the banks are allowed to provide relative to the value of the mortgaged real estate, the banks in fact finance less than the maximum limit. The decrease in the LTV enhances the ability of banks to recover their funds in case of borrowers' default. However, at the same time, and taking into account the high rate of indebtedness of household to their income, banks need to be cautious and study the evolution of these risks when expanding the credit extended to household and real estate sector in general.

Regarding infra and legislative structure of the financial system, the CBJ efforts have focused on two main dimensions, namely: enhancing financial inclusion in a deliberate and prudent manner and enhancing the legislative scheme of the financial system. Regarding promoting financial inclusion, the CBJ started, in cooperation with other relevant parties in the public and private sectors, to prepare a national strategy for financial inclusion that aims at promoting the access of all segments of community to the financial services provided by the "formal" financial sector, so that these services are delivered fairly, transparently and accountably. The strategy will include an analysis of the current situation and the identification of all barriers and obstacles that prevent achieving financial inclusion. The strategy will also include targets that are measureable and acheivable within a clearly-set timeline. It will also set a clear mechanism for measuring the success in the implementation and the achievements of the desired outcomes. In this regard, the CBJ started some initiatives that help promote financial inclusion. One of these efforts is collaboration among the CBJ, the Ministry of Education and INJAZ in a project that aims at spreading financial literacy in Jordan. The offering of the seventh grade curriculum has already started in the academic year 2015/2016. The eighth and eleventh grade course are planned to start in the academic year 2016/2017. Moreover, the CBJ is considering establishing a department or an independent unit tasked mainly with the financial consumer protection and includes protecting bank's customers as well as the customers of the other financial institutions that are supervised by the CBJ, after the important step in this regard represented by the inclusion of microfinance institutions in its supervisory umbrella and started the necessary steps to include the insurance sector in the umbrella, in addition to expanding its supervisory umbrella to include all nonbank financial institutions that are not subject to any supervisory entity. Furthermore, the CBJ initiated a process of developing and restructuring payment, clearance and settlement systems in Jordan in collaboration with the banks working in Jordan and the other relevant partners. Examples include mobile payment and the electronic bill viewing and payment using (eFAWATEERcom) system. In addition, on 15-12-2015, the CBJ approved the licensing of first credit information company. The company plans include building a comprehensive credit information database about the customers of banks and other financial institutions that extend credit. This is expected to reflect positively on improving the chances for the clients, particularly SMEs, to access potential financing and hence promoting financial inclusion in Jordan.

On another strand, this report concluded that banks in Jordan are not expected to face any problems or difficulties in implementing Basel III capital requirements due to their sufficiently high CARs that are the highest in the region, besides the possession of high-quality Tier1 capital, of which most are CET1

Finally, the decline in oil prices is not expected to have negative effect on the financial stability. On the contrary, econometric analysis showed that it will have that a positive, though modest, impact on financial stability in Jordan This is attributed to the fact that the decline in oil prices raises the personal disposable income, and hence, enhances their ability to pay their debt to banks and financial institutions. This magnitude of the impact, however, differs by the length of the decline period, the effect of decline and the ultimate effect on workers' remittances and economic growth in Jordan.

CHAPTER ONE

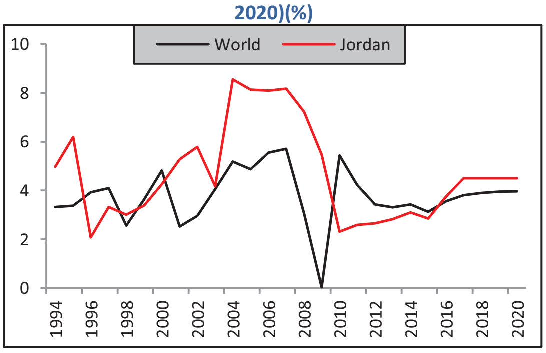
DOMESTIC AND INTERNATIONAL ECONOMIC AND FINANCIAL DEVELOPMENTS AND OUTLOOK

1.1 INTRODUCTION

During 2015, the global financial system witnessed an increase in the risks that threaten its stability, accompanied by the loss of confidence and the surge in turbulences in the global financial market. The global recovery continues, but fragilely and at an increasingly slower pace due to the decrease in the demand for investment and the deceleration in the economic growth in the advanced economies, besides noneconomic factors, mainly political and geographic developments. All these development reflected a more pessimistic outlook for the global economic developments. The IMF's World Economic Outlook for April 2016 asserted that the highest economic risk is in the return of the financial turmoil, impairing confidence and demand and causing negative feedback loops.

Regarding the Jordanian economy, it faced and is still facing, challenges and risks, the most prominent one being the unstable political situation in the neighboring countries. Despite this, the real GDP attained a moderate growth in 2015 of 2.4%, which is far lower than the project number of 3.8%. The IMF projections expect this rate to improve and reach 2.8% and 3.3% at the end of 2016 and 2017 respectively (Figure 1-1).

Figure 1-1. GDP Growth for Jordan and the World (1994-2020)(%)



Source: IMF WEO, April 2016.

According to projections of IMF in its WEO, for April 2016, the global growth of real GDP was forecast to reach 3.5% at the end of 2015. However, the actual figure was 3.1%. Moreover, the IMF cut down its expectations for 2016 from 3.4% to 3.2%, and for 2017 from 3.7% to 3.5%. However, these rates are estimated to improve for Jordan in the next five years to range from 2.5% and 4.0%, which will keep the environment in which the financial sector operates relatively stable.

1.2 GLOBAL ECONOMIC AND FINANCIAL DEVELOPMENTS

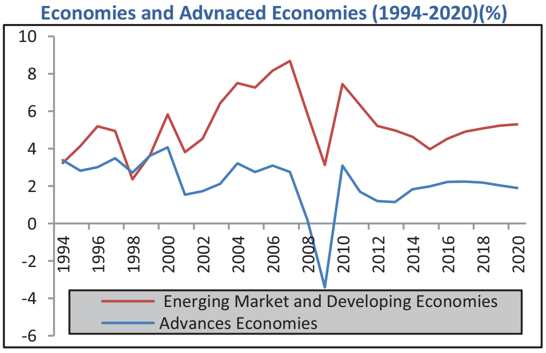
1.2.1 GLOBAL ECONOMIC DEVELOPMENTS

The world economy witnessed a growth in GDP of 3.1% in 2015, compared to 3.4% in 2014. Based on the IMF's most recent projections, the rate is projected to reach 3.2% and 3.5% in 2016 and 2017 respectively. The global economic activity is expected to improve relative to 2015 – specifically in 2017 and after, fueled by the improvement in emerging markets and developing economies due to the decay in the pressures on them. Despite that, the potentials for weaker growth scenario will be higher in the absence of comprehensive and prudent economic policies.

The inflows of capital into the emerging market and developing economies are still relatively low after five years of continuous decline. This raises concerns due to the vital role that the capital inflows play in enhancing domestic investment and growth. This slowdown, however, is not the first trend of this type that the region faced; it was in fact preceded by long periods of decline in the world capital inflows during the eighties and the nineties of the last century. It was mainly due to the spillover of the debt crises.

The IMF sees that the slowdown in global economic growth is mainly due to the narrowing of the growth rates spread of the emerging markets and developing economies and the advanced economies (Figure 1-2).

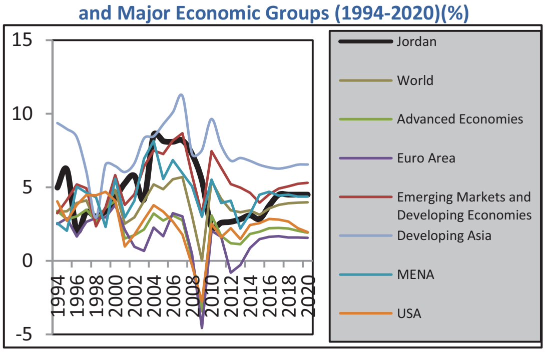
Figure 1-2. GDP Growth for Emerging Market and Developing Economies and Advnaced Economies (1994-2020)(%)



Source: IMF WEO, April 2016.

There are several factors that impact growth expectations in countries and main economic groups. They include the slowdown and rebalancing in China; a further decline in commodity prices, especially for oil, with sizable consequences on sectors and countries; a related slowdown in investment and trade; and declining capital flows to emerging market and developing economies. There are some noneconomic factors, such as geopolitical tensions and political discord that contribute to increased expectations of risk (Figure 1-3 and Figure 1-4).

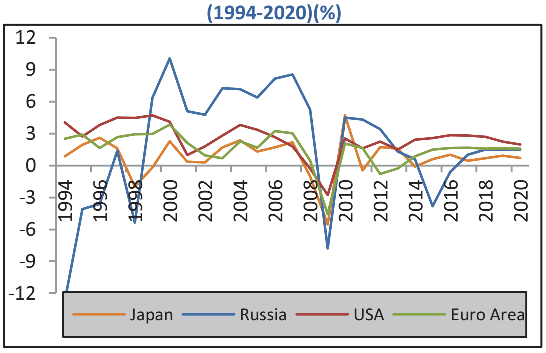
Figure 1-3. Trends and Outlook of Real GDP Growth in Jordan and Major Economic Groups (1994-2020)(%)



Source: IMF WEO, April 2016.

The fiscal stance might be one of the main risk drivers. It realized sharp slowdown in the previous period – as indicated by the IMF in its recent reports.

Figure 1-4. Trends and Outlook of Real GDP Growth for the Most Impacted Countries by Exchange Rates and Oil Price Movements (1994-2020)(%)



Source: IMF WEO, April 2016.

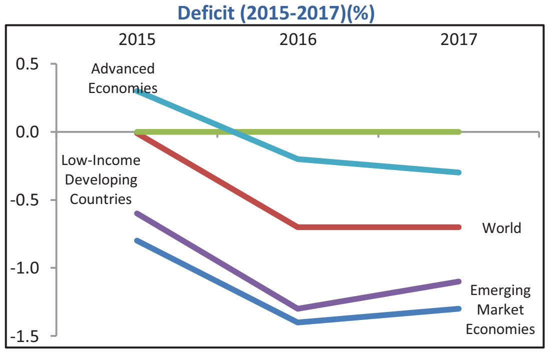
1.2.1.1 Fiscal Developments

The fiscal risks exacerbated as the IMF revealed in its Fiscal Monitor and Global Financial Stability reports released in April 2016, in which the public debt forecasts were adjusted for most of the world countries by increasing the ratio of public debt to GDP. The decline in the prices of raw materials, especially oil prices, exposed the public finance in the oil exporting countries to inflating risks, of which the increase in the borrowing interest rates of these countries is the most prominent. This will consequently lead to general fragility that might hit most economic variables like employment, wages, tax policies, government subsidies for corporates and individuals and other economic variables.

In the same context, the public finance in the advanced economies is not at a better stance. It is highly likely that the risks of the permanent and continuous prospects of weak growth and low inflation will increase the challenges that might make it more difficult to cut the debt ratios in these economies (Figure 1-5).

To exit from this fragile situation, policy makers in the relevant countries must adopt supportive policies that are growth enhancing and maintain sustainable debt in the long term, besides mitigating vulnerabilities in their economies. The IMF stressed in its Fiscal Monitor of April of 2016 on the importance of promoting and adopting prudent fiscal policies that are supportive for growth and innovation. The governments in many countries should exert a greater effort to support research and development. In emerging markets and developing economies, investment spending must generally be increased, particularly on the education sector and the development of infrastructure and institutions.

Figure 1-5. Fiscal Budegt Stance – Expectations of Increased Deficit (2015-2017)(%)



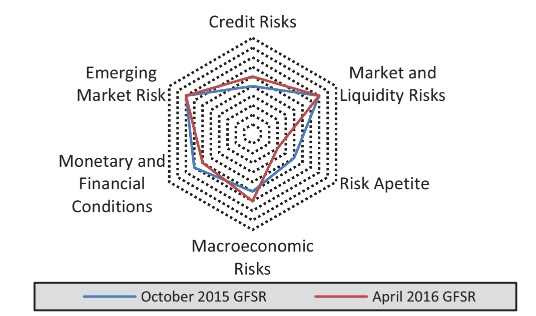
Source: IMF Fiscal Monitor, April 2016.

1.3 Global Financial System Stability

1.3.1 Global Financial Stability

The year 2015 witnessed several favorable and unfavorable international macroeconomic and financial developments. These developments resulted in an increase in the risks that threaten the stability of the global financial system. The negative impact of recent shocks was concentrated and started to materialize in the sectors and economies which suffered from weaknesses that originated in previous periods. Besides, the continuous financial risks and structural changes in the credit markets started to move the center of the risks that threaten the financial stability from the advanced economies to emerging markets, from regular banks to shadow banks, and from solvency risk to market liquidity risk. Compared to October 2015, the global financial stability map for April 2016 shows an increase in credit risk and macroeconomic risks, a decrease in monetary and financial conditions and risk appetite, and constancy in market and liquidity risks and emerging markets risk (Figure 1-6).

Figure 1-6. Global Financial Stability Map Per IMF's Global Financial Stability Reports for October 2015 and April 2016



Source: IMF WEO, April 2016.

1.3.2 DOMESTIC FINANCIAL STABILITY

In Jordan, as appears from the analysis of the financial sector developments later in this **JFSR2015**, the banking and financial system is generally stable. Jordan enjoys a sound and solid banking system that is capable of withstanding the shocks and high risks due the high and satisfactory levels of capital that are the highest in the Middle East and North Africa (MENA) region, in addition to the comfortable levels of liquidity and profitability.

1.4 DOMESTIC ECONOMIC AND FINANCIAL DEVELOPMENTS AND OUTLOOK

1.4.1 DOMESTIC ECONOMIC DEVELOPMENTS AND OUTLOOK

The Middle East region is facing several political and economic problems that impacted the Jordanian economy as a small open oil-importing emerging economy. It has faced since several years a series of shocks that resulted from the repercussions of the political turbulences in the region, especially in Syria and Iraq and the accompanied consequences at all levels.

Despite these challenges, the Jordanian economy continued its satisfactory performance through the appropriate monetary and fiscal policies actions and measures that helped maintain economic and monetary stability relatively through maintaining positive economic growth rates and high levels of foreign reserves despite the continuous decline in price levels that is attributed mainly to the decline in oil prices. The year 2015 realized unfavorable trends in some economic indicators compared to 2014 due to the exacerbation of the regional circumstances and the closure of borders with Iraq and Syria. The main developments are:

1- A decrease in the growth rate of real GDP to 2.5% in 2015 from 3.1% in 2014.
2- An increase in the budget deficit to 3.4% of GDP in 2015 from 2.3% in 2014.
3- An increase in the current account deficit to 9.0% of GDP in 2015 from 7.3% in 2014.
4- A decrease in total merchandize exports (domestic exports plus re-exports) to 14.5% of GDP in 2015 from 20.3% in 2014.
5- A price deflation by 0.9% in 2015 from 2014. This deflation is attributed mainly to the decline in oil and commodity prices and the services related to them.

Table 1-1. Main Indicators for The Domestic Economy And Their Outlook for the Period 2005-2020

Year	GDP*	Inflation (Period average) *	Unemployment Rate (% of Labor Force)	Population (Million) **	Gross Debt ***	Current Account ***
2005	8.1	3.5	14.8	5.5	82.0	-18.0
2006	8.1	6.3	14.0	5.6	76.3	-11.5
2007	8.2	4.7	13.1	5.7	70.8	-16.8
2008	7.2	14.0	12.7	5.9	65.4	-9.4
2009	5.5	-0.7	12.9	6.0	67.8	-5.2
2010	2.3	4.8	12.5	6.1	71.4	-7.1
2011	2.6	4.2	12.9	6.2	82.7	-10.3
2012	2.7	4.5	12.2	6.4	87.0	-15.2
2013	2.8	4.8	12.6	6.5	80.1	-10.3
2014	3.1	2.9	11.8	6.7	80.8	-7.3
2015	2.4	-0.9	11.6	9.5	85.8	-9.0
2016	3.2	0.2	11.3	9.8	90.4	-6.4
2017	3.7	2.1	11.1	9.9	87.4	-5.6
2018	4.0	2.5	10.8	10.2	83.6	-5.9
2019	4.0	2.5	10.6	10.5	79.3	-5.7
2020	4.0	2.5	10.3	10.6	75.4	-5.8

Source: IMF World Economic Outlook Database, April 2016. * Y-o-Y growth rates in percent. ** Population count numbers for the period (2012-2014) are based on the projections of the Department of Statistics. *** Percent of GDP.

Nevertheless, the merchandize imports decreased to 52.3% of GDP in 2015 from 63.5% in 2014 due to the decline in the oil prices. Furthermore, the level of foreign reserves at CBJ increased, though slightly, by 0.5% in 2015 relative to 2014 and reached $14.0 billion at the end of 2015.

Table 1-1 shows the main indicators for the domestic economy and their outlook for the period (2005-2019), given that the estimations for the years 2016 through 2020 were extracted from the World Economic Outlook Database prepared by the IMF.

1.5 STANDBY ARRANGEMENTS

The IMF concluded its reviews for the Jordanian economy in the context of the stand-by arrangements (SBA) whose agreement was signed by the government for the period (2012-2015). The seventh and the last review of the stand-by arrangements took note of the negative impact of the regional developments on the Jordanian economy after the recovery of the economy from the severe shocks that it faced since 2012 impacted by the repercussions of the global financial crisis.

Of the favorable outcomes of the SBA was the improvement in most economic indicators, especially during the period (2013-2014), represented by the decline in budget deficit, National Electricity Company losses, and inflation rate, besides attaining a reasonable improvement in economic activity despite the challenges and risks. It is worth mentioning that Jordan reached staff-level agreement with IMF on a three-year extended fund facility (EFF) on June 20, 2016.

1.6 Challenges to Stability

1.6.1 The Exacerbation of Political Turbulence in the Region

The conflicts in Syria and Iraq caused a huge influx of refugees, especially from Syria, to Jordan. This consequently put more pressure on the limited resources, led to the closing of borders with Iraq and Syria, and caused turbulences in trade paths and investment decisions of foreign investors, besides the rise in the public debt. However, the IMF's economic program of standby arrangements helped Jordan cope with these shocks. The gradual fiscal consolidation by the government supported by the decline in the oil prices accompanied by prudent (accommodative) monetary policy also helped maintain monetary and financial stability in the Jordanian economy in general.

Inevitably, the challenges imposed by the unstable situation in the region are the most serious risks that adversely affect economic and financial stability in Jordan. The closing of borders with Syria and Iraq adversely impacted Jordan's external trade with these two countries substantially. This adds to transit trades that pass through these two countries, especially Syria, as it is the sole land path for the external trade with Lebanon, Turkey and the European Union.

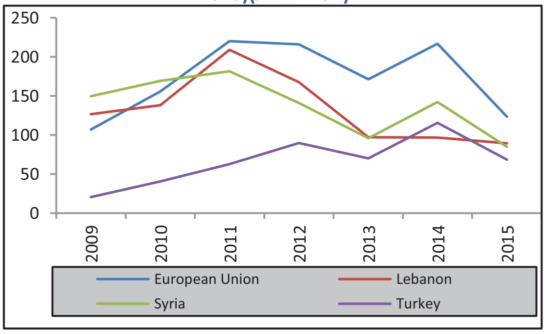
This closure of borders led to notable fluctuations, but downward trending, in the Jordanian exports to these countries from the start of the conflict, these exports reached its minimum in 2013. Even though they improved in 2014, Jordanian exports declined again in 2015 because of the worsening of political turmoil in the neighboring countries and the blurry political stability policies to deal with the conflicts. Exports to Turkey were the most adversely impacted ones (Figure 1-7).

The estimated number of Syrians (regardless of whether they are registered as refugees or not) who live in Jordan approximates 1.3 million. This consequently puts huge pressures on the Jordanian economy in various sectors, especially education, health, unemployment and wage levels.

1.6.2 The Increasing Strength of the Dollar

The improved economic conditions in USA relative to the rest of the world enhanced the strength of the US Dollar, which could consequently affect the competitiveness of the Jordanian economy adversely. This entails on the economic policymakers to keep adopting a prudent monetary policy and undertake structural reforms to improve the competitiveness of the Jordanian economy.

Figure 1-7. Jordan Exports to the Neigbouring Countries (2009-2015)(JD Million)



Source: Department of Statistics.

1.7 Positive Indicators

1.7.1 Transparency and Anticorruption

Transparency and anticorruption indicators are prepared by Transparency International. This organization has been publishing corruption indicators since 1995 through the preparation of an annual report that includes a ranking of the world countries in adopting transparency and fighting corruption.

Among about 140 countries in the world, Jordan occupies a good and a relatively stable rank of 45 in 2015 and a score of 53 (Table 1-2).

Table 1-2. Jordan Rank among World Countries in Anti-corruption (2015)

Rank	Scores			
2015	2012	2013	2014	2015
45	48	45	49	53

Source: http://www.transparency.org/research/cpi/overview.

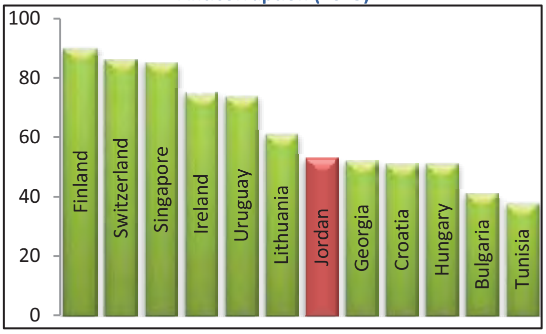
Compared with some countries, Jordan is located almost in the middle of the list and occupies the seventh rank among these countries, which is led by Finland. It is succeeded by Georgia, Croatia, Hungary, Bulgaria and Tunisia. In sum, this is a good indicator on the stability of anticorruption and transparency policy relatively thus enhancing the financial stability in Jordan (Table 1-3 and Figure 1-8).

Table 1-3. The Rank of Jordan and Selected World Countries in Anti-corruption (2015)

Country	Score	Rank
Finland	90	2
Switzerland	86	7
Singapore	85	8
Ireland	75	18
Uruguay	74	21
Lithuania	61	32
Jordan	53	45
Georgia	52	48
Croatia	51	50
Hungry	51	50
Bulgaria	41	69
Tunisia	38	76

Source: http://www.transparency.org/research/cpi/overview.

Figure 1-8. The Rank of Jordan and Selected World Countries in Anticorruption (2015)



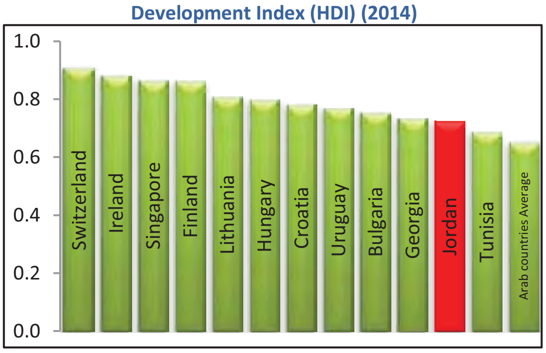
Source: http://www.transparency.org/research/cpi/overview

1.7.2 Human Development

The human development index is released by the United Nations Development Programme (UNDP). It includes many sub-indicators related to human resource development. The Human Development Index (HDI) is a summary measure of the average achievement in the three key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living.

The HDI is measured by the geometric mean of normalized indices for each of the three dimensions. Jordan hold a relatively low rank compared with some other countries involved in the comparison process in this context (Figure 1-9).

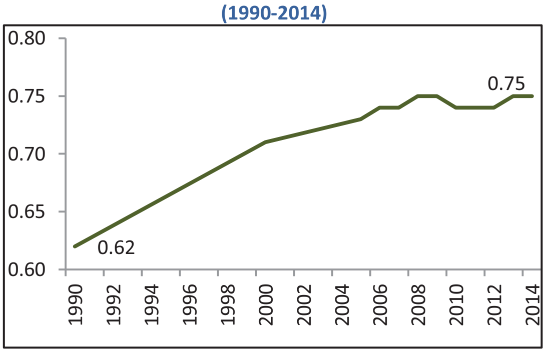
Figure 1-9. The Rank of Jordan and Selected Countries in Human Development Index (HDI) (2014)



Source: http://hdr.undp.org/en/composite/trends

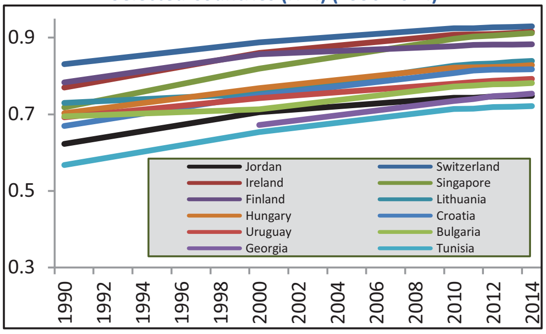
Despite this, it supersedes the average of the Arab countries and that for Tunisia. It follows a relatively stable upward trend as indicated by the historical data (Figure 1-10). Besides, Jordan does not differ from the pattern of similar countries (Figure 1-11).

Figure 1-10. Human Develelopment Index for Jordan (HDI) (1990-2014)



Source: http://hdr.undp.org/en/composite/trends

Figure 1-11. Human Development Index for Jordan and Some Selected Countries (HDI) (1990-2014)



Source: http://hdr.undp.org/en/composite/trends

1.7.3 Competitiveness

Competitiveness indices are prepared by the World Economic Forum (WEF). The degree of competitiveness is measured for 140 world economies through a set of factors and sub-indicators that result in one number that reveals the competitive stance for a given country. These indicators and sub-indices are shown in Table 1-4.

Table 1-4. International Competitiveness Index for Jordan and Selected Countries and Its Pillars (2015)*

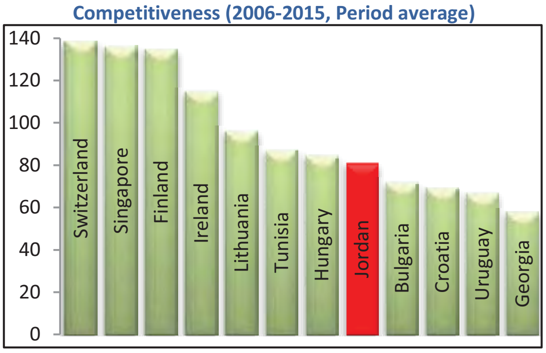
	Index and Sub - Index	Score	Rank
	Sub index A: Basic requirements	4.5	75
1	1st pillar: Institutions	4.4	36
2	2nd pillar: Infrastructure	4.0	70
3	3rd pillar: Macroeconomic environment	3.4	130
4	4th pillar: Health and primary education	6.0	54
	Sub index B: Efficiency enhancers	4.1	67
5	5th pillar: Higher education and training	4.7	50
6	6th pillar: Goods market efficiency	4.6	39
7	7th pillar: Labor market efficiency	4.0	93
8	8th pillar: Financial market development	3.8	71
9	9th pillar: Technological readiness	3.7	76
10	10th pillar: Market size	3.7	76
	Sub index C: Innovation and sophistication factors	4.0	40
11	11th pillar: Business sophistication	4.3	40
12	12th pillar: Innovation	3.7	40
	Index	4.2	64

http://reports.weforum.org/global-competitiveness-report-2015-2016/economies/#economy=JOR.

* Rank is 1-7. The higher the score, the better. The rank is among 140 countries in 2016.

Put shortly, Jordan has a good ranking to some extent among these countries, where it ranked 62 among 140 countries in the world. Jordan's rank is close to that of Hungary. It supersedes Georgia, Uruguay, Croatia and Bulgaria (Figure 1-12).

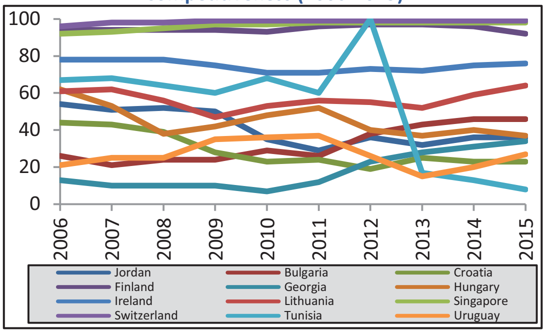
Figure 1-12. The Rank of Jordan and Selected Countries in Competitiveness (2006-2015, Period average)



Source: http://reports.weforum.org/global-competitiveness-report-2015-2016/economies/#economy=JOR

Although the competitive situation actually fell slightly during the past five years, it began to witness a slight improvement since 2014, which in turn reflects the determination of the Jordanian government to reflect a positive image of the competitiveness of the Jordanian economy despite the very complex developments that hit the region in general and Jordan in particular (Figure 1-13).

Figure 1-13. The Rank of Jordan and Selected Countries in Competitiveness (2006-2015)



Source: http://reports.weforum.org/global-competitiveness-report-2015-2016/economies/#economy=JOR

1.8 Conclusion

Despite the negative developments that affected the region and the world during 2015, which touched the economic, political and social conditions in a number of countries around the world, particularly the Middle East countries, and which was reflected on increasing the challenges that Jordan is facing, the government policies and the CBJ policies both have helped reduce the effects of these challenges, and, hence, helped maintain economic, monetary and financial stability in Jordan.

Chapter Two

Infra and Legislative structure of the Financial System

2.1 Introduction

The proper infra and legislative structure are of the main elements and factors in achieving a stable financial system. During the previous period, the CBJ continued to develop the financial system's infrastructure and the relevant financial regulations. These CBJ efforts have focused on two main dimensions, namely: enhancing financial inclusion in a deliberate and prudent manner and enhancing the legislative scheme of the financial system.

2.2 Promoting Financial Inclusion

2.2.1 The Financial Inclusion Concept

Financial inclusion is a "vision that reaffirms the basic tenet that all adults have the right to access loans, savings, payments and insurance services from formal financial institutions easily and at an affordable cost, besides maintaining the sustainability of the business of the financial service providers. The target is providing formal financial services for the excluded and deprived group instead of the unofficial alternatives." These unofficial alternatives usually include unfair terms and conditions on the users, which in turn exacerbate the financial problems of the group deprived from the official financial services.

2.2.2 The Importance of Financial Inclusion

After the global financial crisis, the interest of economic, monetary and fiscal policies makers was focused on financial inclusion and access to financial services by various segments of the society due to the impact that it has on financial, social and political stability and economic development, besides financial consumer protection.

The promotion of financial inclusion is not confined only to the spread of financial services to a larger group of people; it also includes offering quality and diversified financial services at reasonable costs. This eventually helps attain sustainable comprehensive development. On the macro level, the benefits obtained as a result of promoting financial inclusion are:

- Enhancing economic development and increasing employment rates
- Enhancing the stability of the financial system
- Reducing poverty levels through cutting down the costs of financial transactions, and supporting their capacity to cope with financial shocks and the fluctuations in their income and, hence, attaining social stability.
- Increasing transparency to fight money laundering and the financing of terrorism.
- Increasing the financial access for the enterprises, especially SMEs.

As pointed in Joint Arab Economic Report released by the Arab Monetary Fund in 2015, the experiences of the developing countries that succeeded recently in increasing economic growth rates substantially pointed to the ability of these countries in attracting domestic savings and increasing saving rates through activating the role of the banking sector in offering saving and investment channels that are attractive for the domestic savings, and offering financing tools that appropriates the needs of households and companies.

2.2.3 Financial Inclusion in Jordan

The most recent studies about financial inclusion – detailed later in this chapter – revealed that about 60.0% of adult population in Jordan with ages ranging from 18 years to 80 years has bank accounts. This percent is close to international figures, but far less than its counterpart in the advanced countries, where in some of them the number touches 90.0%. The study also revealed that 22.0% of the surveyed who do not have bank account do not trust banks. It also revealed that 9.0% do not have bank accounts due to their religious beliefs.

Regarding access to finance, the numbers are still modest. The study revealed that the percentage of individuals who obtained borrowing from banks and microfinance companies approximated 17.0% only, whereas the share of SMEs reached about 7.3% of bank credit facilities, which is indeed a modest portion when compared to the average in the advanced economies that ranges from 20.0% to 25.0%. Under progress is a comprehensive market study to evaluate the financial inclusion in Jordan thoroughly.

2.2.4 The Need for Establishing a National Strategy for Financial Inclusion

To promote financial inclusion and achieve its desired outcomes, the CBJ held several consultations with some international agencies that have expertise in this area, such as the European Union and the German Corporation for International Cooperation (GIZ). These consultations stressed the need for developing and adopting a national strategy for financial inclusion. The CBJ's vision for this strategy is that it expresses a real partnership between the public and private sectors. It even goes beyond that to include civil organizations, and represents a comprehensive and a consolidated framework for all national strategies related to microfinance, financial literacy, payments and all initiatives that deal with SMEs. The end of 2015 witnessed the formation of a national committee headed by the CBJ's governor to supervise the preparation and implementation of the national strategy for financial inclusion. The strategy will include an analysis of the current situation and the identification of all barriers and obstacles that prevent achieving financial inclusion. The committee will also set targets that are measureable and attainable within a clearly-set timeline. It will also set a clear mechanism for measuring the success in the implementation and the achievements of the desired outcomes.

2.2.5 Main Pillars of Financial Inclusion

The CBJ took several steps in improving and activating a proper environment for financial inclusion. In this regard, the CBJ sees that the deliberate and prudent expansion of financial inclusion and the provision of the needed infrastructure helps support sustainable and comprehensive economic growth and, hence, enhances financial, economic and social stability in Jordan. In order to attain this goal, the CBJ's policy for financial inclusion is based on the following pillars:

1- Improving the access to finance, especially for the SMEs.
2- Spreading financial literacy.
3- Enhancing financial consumer protection.
4- Providing the infrastructure needed for enhancing financial inclusion.
5- Developing microfinance sector and its products.

2.2.5.1 Improving The Access To Finance, Especially For The MSMEs

SMEs are one of the main pillars of the economy in most world countries, and one of the most important job creators. SMEs account for about 95.0% of companies in the vast majority of countries in the world. They provide between 40.0% and 60.0% of jobs. A recent study released by the International Finance Corporation (IFC) revealed that the "official" SMEs contribute to 33.0% of the GDP of developing economies. They also contribute up to 45.0% of jobs. These figures go up significantly when including the "unofficial" SMEs. In high-income countries, SMEs contribute to 64.0% of GDP approximately, and provide 62.0% of jobs.

The CBJ continued to support and encourage MSMEs. During the last three years, and in collaboration with the Ministry of Planning and International Cooperation and some international and regional financing institutions, the CBJ has been attracting funding for the MSMEs sector that roughed $320.0 million at competitive interest rates and for suitable maturities. The funds transferred to Jordan amounted $156.0 million. The amount used to finance MSMEs reached about $111.0 million granted to about 11 thousand MSMEs, of which about 64.0% are located outside the Capital Amman. The financing created more than 2,700 jobs. In the same direction, the EBRD granted senior unsecured facility of $120.0 million. The CBJ facilitated and provided the necessary support to banks to optimally utilize the loan amount. Additionally, the EBRD signed agreements with two banks to obtain two senior unsecured loans totaling $40.0 million.

As mentioned in the previous JFSRs, the CBJ has already established financing programs targeting manufacturing, tourism, renewable energy, and agriculture and information technology and encompassing companies of all sizes, including SMEs at an interest rate of 1.75% and a balance of about JD1.0 billion. A total of 342 projects benefited from these programs and obtained JD250.0 million as of 03-08-2016. The distribution of loans across sectors approximated JD130.2, JD27.4, JD73.9 and JD18.9 to manufacturing, tourism, renewable energy and agriculture respectively. The information technology sector, however, did not benefit from the funding to date. In this regard, the CBJ improved the lending terms and conditions in this program in 2015 to comply with the lending programs of Islamic banks by signing a limited investment agreement with the Islamic banks interested in the program.

Regarding providing the collaterals to the financing of SMEs, the Jordan Loan Guarantee Corporation (JLGC) was restructured, its procedures were improved and its scope was expanded so that the JLGC can provide the required guarantees for the financing of SMEs. As a result, the number and the value of guaranteed projects doubled. In addition, the JLGC launched a fund to support the SMEs, especially the newly established ones, through providing the required guarantees to access financing through the JLGC. It is worth mentioning that under progress is a proposal for establishing a special fund for investing in the capital of newly established companies. The project is proposed by the CBJ in collaboration with the Ministry of Planning and the International Bank for Reconstruction and Development (IBRD).

2.2.6 DEVELOPING MICROFINANCE SECTOR

A study conducted by the IBRD entitled "Impact of Government Regulation on Microfinance" stressed that the organizational reform of the microfinance companies helps strengthen the integrity of the financial system, and facilitates the expansion of microfinancing and its integration with the formal financial sector. In this regard, the CBJ made a strategic decision to expand its supervisory umbrella to include the microfinance sector. In this regard, the cabinet approved on 14-12-2014 the Bylaw No (5) for 2015 which became effective on 06-01-2015 to constitute a legal reference for the licensing, control and supervision of the microfinance companies by the CBJ. In May 2016, the CBJ issued instructions for the licensing and presence of microfinance companies. It (the CBJ) intends to issue the detailed instructions needed for starting monitoring and supervising this sector.

2.2.7 SPREADING FINANCIAL LITERACY

Financial Literacy is considered as one of the most important factors that help expand the financial inclusion and enhance the protection of the financial consumer. Several studies have indicated that strengthening the level of financial literacy to individuals is a key factor to increasing the level of savings, and thus promoting economic growth through the provision of liquidity needed for investment. In turn, this enhances the ability of the countries to withstand financial and economic crises. In Jordan, the CBJ pays the subject of financial literacy high attention because of its importance in strengthening the financial, economic and social stability in Jordan. This is especially important because studies have indicated that Jordan has a modest ranking in the level of financial literacy among world countries. The survey carried out by experts from George Washington University and the World Bank entitled "Financial Literacy around the World" aimed to measure the level of financial literacy in the various countries of the world. It included basic questions covering four major aspects: risk assessment (investments), inflation, simple interest calculation and compound interest calculation. Any respondent who answered at least three out of four questions is considered financially literate. Based on this definition, the results of statistical analysis revealed that 33.0% of adults in the world are financially literate. The study showed also most people who had trouble understanding basic financial concepts are originated from emerging economies. Moreover, the study found that the level of financial literacy in the world ranges between 13.0% and 71.0%. In this regard, Jordan occupied the rank 116 among the world countries surveyed.

In this regard, the CBJ initiated a project to spread financial literacy in Jordan aiming at enabling the financial consumers to:

- Comprehend the fundamental principles and concepts in the financial and banking context.
- Manage their savings and personal possessions and optimally invest them.
- Increase the chances of benefiting from financial sources, services and facilities provided by banks and financial institutions.

This, in turn, reflects on sustaining financial inclusion and enhancing financial, economic and social stability in Jordan.

The project therefore targets several major sectors in Jordan through several programs. The main part of the project has already started and includes financial education in schools in collaboration among the CBJ, the Ministry of Education and INJAZ (a Jordanian non-profit entity). The offering of seventh grade curriculum started in the academic year 2015/16. The eighth and eleventh grade course are planned to start in the academic year 2016/2017.

Besides the financial education program at schools, the project is targeting several other programs that are expected to be launched in the near term. They include:

1- Financial education in the higher education institutions.
2- Spreading financial literacy via mass media.
3- Financial literacy to develop businesses.
4- Financial education at workplace.
5- Financial education for woman and rural areas.
6- Electronic financial education

2.2.7.1 FINANCIAL CONSUMER PROTECTION

Several studies published by the international agencies stressed on the importance of financial consumer protection and its positive impact on the financial inclusion. The global financial crisis revealed the importance of the protection of financial consumer in financial stability. The leaders of the G20 summit, which was held in Toronto in 2010, identified the protection of financial clients through financial education as one of nine principles of financial inclusion based on creativity and innovation.

After issuing Treating Clients with Transparency and Fairness Instructions No. 56/2012 dated 31-12-2012, the CBJ established a division specialized in financial consumer protection in 2014. In the same direction, the CBJ is considering establishing a department or an independent unit tasked mainly with the financial consumer protection and includes protecting bank's consumers as well as the customers of the other financial institutions that are supervised by the CBJ after the inclusion of microfinance institutions in the supervisory umbrella of the CBJ and setting up the inclusion of the insurance sector in the supervisory umbrella of the CBJ.

2.2.7.2 Providing the Required Infrastructure for the Financial Inclusion

2.2.7.2.1 The Issuance of Individual Savings Bonds

The CBJ, on the behalf of the government, issued the first release of the savings bonds targeting the individuals named "individual savings bonds (ISBs)" during the period 25-05-2016—25-06-2016 aiming at providing saving tools for individuals that in turn enable them to utilize and manage their savings safely at a constant return for medium and long terms. This issuance of the ISBs will enhance the financial inclusion in Jordan. This is done especially by the terms and conditions for participating in the underwriting, more specifically the condition for the underwriting individual to have a bank account. Furthermore, the savings bonds are considered a tool for attracting national savings and an investment tool for the owners of small portfolio and a means to increase the remittances of Jordanians working outside Jordan. The interest rate of the ISB is 4.25%, which is higher than the average interest rate on deposits with banks. Financial experts predicted that the ISBs interest rate will lead the interest rates in the market to rise. They also predicted that the ISBs will attract the remittances of expatriates especially since their interest rate is higher than the rate of return on deposits in the countries where they work, especially for those looking for feasible investments that are more stable and less risky. The underwriting amount approximated JD28.0 million.[1]

2.2.7.2.2 Developing payment, clearance and settlement systems

The CBJ initiated a process of developing and restructuring payment, clearance and settlement systems in Jordan in collaboration with the banks working in Jordan and the other relevant partners. The process aims at maintaining the strength and efficiency of national payment system through intra-system operations and mitigating systemic and credit risks, besides facilitating the circulation of money in the economy to enhance economic efficiency. The CBJ led this process supported by the commercial banks that are represented in the national payment council.

In this regard, the CBJ undertook the following:

1- Implementing the Spanning Tree Protocol (STP) feature and Purpose Code on 02-02-2015. In this regard standardized codes were used to identify outgoing and incoming remittances. These codes are uniquely identified on the country level in a way that benefits all banks operating in Jordan to help find a statistical database on country level. The implementation of the STP aimed at enhancing the efficiency of banking services provided to the clients and improving its performance, increasing the velocity of money in the domestic economy, speeding up and shortening the time period for the execution procedures of remittances and reducing manual operations for executing the remittances.

2- The CBJ's announcement on the implementation of the ISO 20022 (MX Messages) in the new Real-Time Gross Settlement system (RTGS) on 15-03-2015. This CBJ's decision is mandatory to all banks operating in Jordan as they are required to amend their internal systems to comply with the new standard for the MX messages. With this, Jordan will be the first country in the region and the second in the world as recognized by the relevant international institutions.

3- The declaration of the CBJ for the completion of the new RTGS. The new design of the system takes into account all recognized international standards from financial and technical point of view that are recommended by major international institutions such as the International Bank for Reconstruction and Development (IBRD) and Bank for International Settlements (BIS). The new system uses SWIFT network as the primary communication means between the members and the system and the secure network as an alternative means of communication. The old system, however, used SWIFT network as the sole means of communication between the members and the

[1] More information about the subscription and payment procedures and paying for the ISB are available in the link http://www.cbj.gov.jo/uploads/indivisual_ponds_user_manual.pdf

system. It is worth noting in this regard that the financial messaging via SWIFT was upgraded to comply with ISO 20022 instead of ISO 15022. Moreover, the new RTGS system depends primarily on the messages of MX type as a substitute for MT messages. This new system allows for receiving future payments where the sender sets future value dated transactions. In general, the gains acquired from the new system includes improving the speed of executing the payment orders and circulation of money and the finality settlement, improving liquidity risk and settlement management, improving money management efficiency at banks, stimulating the interbank market and boosting confidence in the Jordanian financial system both domestically and internationally.

4- The CBJ established a link between JoMoPay system and eFAWATEERcom system. The linkage aims at enabling users who do not have bank accounts to inquire about their bills and other payments electronically using their electronic portfolio set by the payment services agents who are subscribed to the JoMoPay to operate beside the other available financial operations like fund transfer, balance inquiry, depositing and cash withdrawal. The linkage will also help save costs for the payment services providers through accessing multiple and varied payment services through one connection point without needing to reinitiate the linkage among the different retail payments systems. The linkage is planned to be finished and activated in the second half of 2016.

5- The CBJ decided a unified methodology to all processes and for all clients in the JoMoPay payment system (cash in, cash out, payments and money transfer) through specifying a unique number and a consolidated list that includes all payments by mobile phone and providing them to all clients using text messaging technology USSD – a technology that is highly secured and well-protected. Consequently, the CBJ makes this service accessible through three main pillars:

- Improving the JoMoPay system in a way that facilitates the access of the clients to the financial services that are executed using USSD text messaging
- Coordinating with the telecommunication companies operating in Jordan (Zain, Orange, Umniah) to specify a uniform number and establish a consolidated list that includes all the operations pertinent to payments via mobile phone and are made available to all clients.
- Making financial services accessible to the clients of payment services providers without needing to communicate directly with their telecommunication service providers; this in turn saves these providers a lot of operating expenses resulting from the repeated networking operations.

6- The CBJ linked all ATMs in Jordan with JoMoPay. This linkage helps enable clients withdraw cash using their electronic portfolios or bank accounts using ATMs spread throughout Jordan.

7- The CBJ, at the request of several government institutions, created an integrated mechanism that enables organizations to provide electronic services, including electronic payment, on the same website of the institution through completing the linking of government institutions websites with the electronic bill payment and viewing service in order to enable clients to complete their transactions with the government electronically, including electronic payment, through the official website of the institution without the clients having to do that onsite.

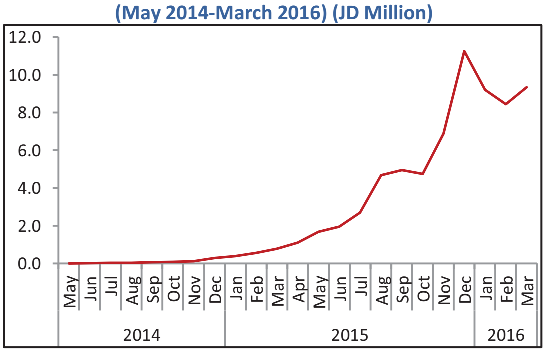
8- The CBJ continued using the national switch system to pay by mobile phone during 2015. The number of providers who offer the mobile payment service reached five in 2015. It includes three banks (Bank of Jordan, Jordan Commercial Bank, and Housing Bank for Trade & Finance) and two financial institutions (Middle East Payments Services (MEPS) and Alhulool (Financial Solutions)). The number of transactions executed through the system reached 835 transaction totaling JD25,277.

9- The CBJ continued to provide electronic services to the ministries and public institutions through providing the e-banking services. The system provided to 88 of his clients the access to balance inquiry, print account statements, credit or debit notices in 2015. Several services will be launched gradually, including a service that enables clients to carry out fund transfers among accounts.

10- The CBJ continued to provide the electronic bill viewing and payment using eFAWATEERcom system that is operated by a Jordanian company and links all the banks operating in Jordan except Citi Bank and Rafidain bank to provide the service through various banking channels. Besides, Jordan Post Company and the Emerging Markets Payments Group (EMP) were also linked in order to provide services to the users who do not have bank accounts so that they can inquire and pay bills which will help sustain financial inclusion in Jordan. On another strand, the number of billers participating in the system reached 38 biller distributed across various sectors like telecommunications, utilities, government, education, insurance, e-commerce, professional associations, financial and voluntary entities sectors. The number of transactions executed through the system reached 478,286 transaction totaling JD41,628,223.0 during 2015 (Figure 2-1).

11- The CBJ started to develop and restructure the systems that are used to implement the monetary policy with the banks operating in Jordan. On 07-02-2016 the DEPOX system was launched. This system is considered a central comprehensive system for managing auctions for both government securities and certificates of deposits. The system includes also a platform for interbank trading through the execution of borrowing, repos and sale and purchase of securities operations. The launching of this system complies with the policies of the CBJ to move from the manual to the electronic working environments in a way that assure confidentiality and maximum transparency for all the operations of the system. The system allows the banks to execute deposit windows and repos overnight or for longer terms with the CBJ to guarantee the utilization of excess liquidity at the end of business day efficiently and effectively. Besides using the system to provide the daily liquidity required for the flow of transfers among members, so that the financial outcome of the operations is applied to the relevant accounts in the RTGS system automatically and instantly. The new system is also designed to deal with all types of Islamic financial tools, which in turn helps provide several alternatives for the Islamic banks to invest their excess liquidity in compliance with Sharia. On another hand, the system will help enhance the efficiency of the economic cycle through enabling users to invest in ISB via the various payment channels that are made available by the infrastructure of payment, clearance and settlement systems in Jordan.

Figure 2-1. Transaction Executed through eFawateercom System (May 2014-March 2016) (JD Million)



Source: CBJ.

2.2.7.3 Credit Information Agency

The CBJ established the legislative and legal framework necessary for the work of companies that deal with the exchange of credit information. The temporary *Credit Information Law* No (15) for the year 2010 and *Credit Information Companies Bylaw* No (36) for the year 2011 were issued. According to these legal references, the CBJ is responsible for the licensing of such companies, as well as monitoring and supervising the organization of their business. On 15-12-2015, the first credit information agency was licensed. The company plans include building a comprehensive credit information database about the clients of banks and other financial institutions that extend credit. This is expected to help these entities rationalize the credit decision making so that a right and a fair decision is made based on a precise evaluation the abilities of the clients to repay their loans. It will also help these entities price their financial products (loans) based on clients' risks. In turn, this will enhance the effectiveness of risk management at banks and other financial institutions and improve the chances for the clients (particularly SMEs) to access potential financing. The establishment of this company is expected to reflect positively on sustaining financial inclusion and, hence, on financial stability in Jordan.

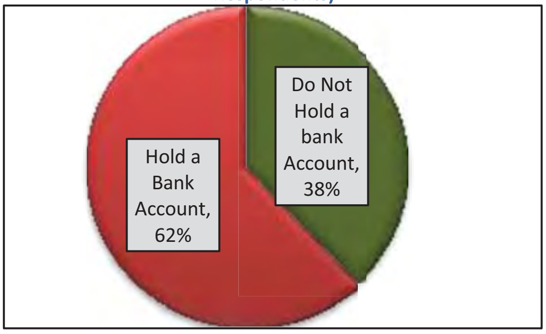
2.2.8 Measuring Financial Inclusion in Jordan

Approved by the CBJ, INJAZ requested PFK, a specialized company in surveying, to conduct a survey measuring financial inclusion and financial literacy in Jordan. The survey was distributed to a random sample of 1,140 respondents across Jordan in the age category of 18-80 years. The survey results revealed that financial inclusion in Jordan is better than what is indicated in the previous studies, it is worth mentioning that the CBJ added additional questions to measure financial inclusion. The main results of the study are:

1- The percentage of respondents who has bank accounts approximated 62.0%. This is a logical and a satisfactory percentage that is close to world's average when compared to the previous studies' (about 25.0%[2]). However, this percentage is well behind the advanced countries whose figures ranges between 80.0% and 90.0% (Figure 2-2).

[2] The clear difference between the current study and the previous studies is attributed to the age range used. The minimum age in the previous studies was 15 years. The age start of 18 years is more appropriate for Jordan.

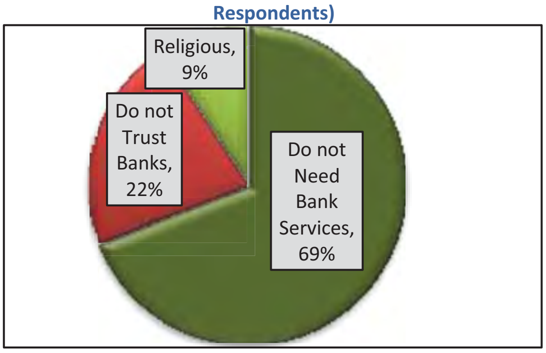
Figure 2-2. Adults Who Have Bank Accounts (Percent of Respondents)



Source: INJAZ Survey, 2015..

2- About 69.0% of respondents who do not have bank accounts indicated that they do not have bank accounts because they do need the financial services provided by the banks. Whereas 22.0% indicated that they do not trust banks and 9.0% justified not having a bank account for religious reasons (Figure 2-3).

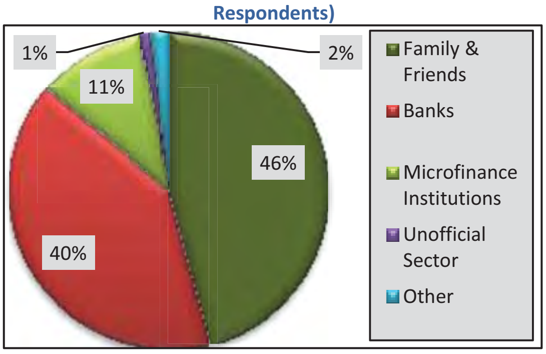
Figure 2-3. Reasons for not Having Bank Accounts (Percent of Respondents)



Source: INJAZ Survey, 2015.

3- The study revealed that about half of borrowers borrowed from family, friends or other unofficial sources. Whereas the other half borrowed from banks and microfinance companies. However, the general share of official borrowers in the age range indicated previously is 17.0% (Figure 2-4).

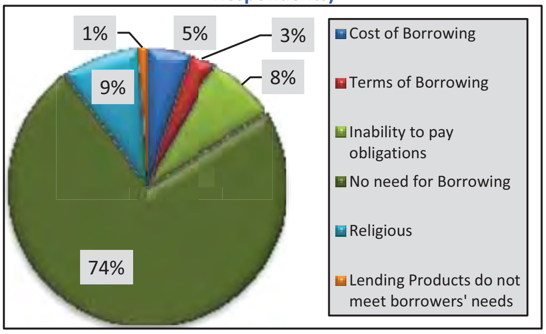
Figure 2-4. Sources of Funding for Adults During 2015 (Percent of Respondents)



Source: INJAZ Survey, 2015.

4- About 75.0% of the no borrowing respondents stated that they did not borrow because they are not in need for borrowing money. Whereas 9.0% attributed that to loan terms, conditions and cost. The remaining percent (about 16.0%), referred the non-borrowing to their religious beliefs or their inability to meet the loan obligations. These results indicate that the response of banks and the other financing institutions to loan applications by individuals is relatively satisfactory and the vast majority of the non-borrowers did not borrow because they were not in need for loan (Figure 2-5).

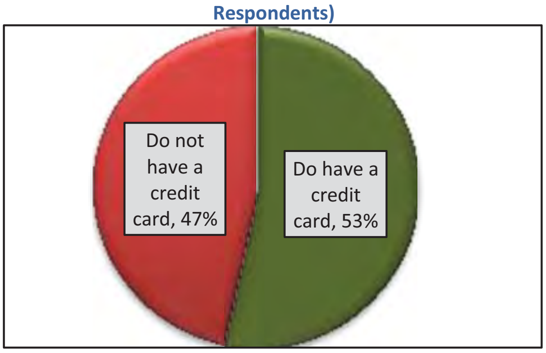
Figure 2-5. Reasons for the Non-Borrowing (Percent of Respondents)



Source: INJAZ Survey, 2015.

5- The percent of those who have credit cards (also treated as credit facilities) approximated 53.0% (Figure 2-6).

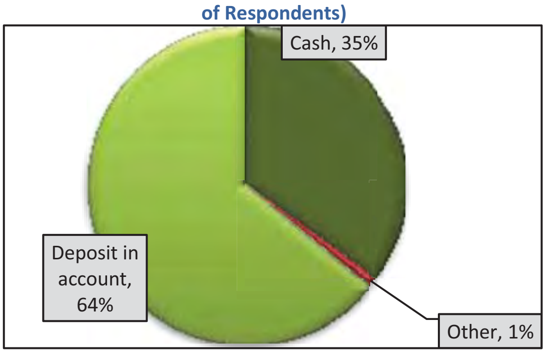
Figure 2-6. Customers Who Have Credit Cards (Percent of Respondents)



Source: INJAZ Survey, 2015.

6- About 64.0% of those who receive regular salaries get their salaries deposited in bank account, while the remaining percent (36.0%) receive it in cash (Figure 2-7).

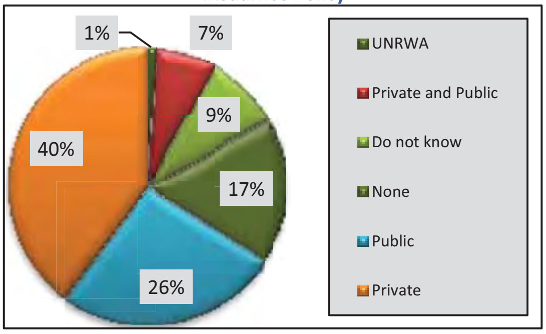
Figure 2-7. The Way Customers Receive Their Salaries (Percent of Respondents)



Source: INJAZ Survey, 2015.

7- The percent of respondents who have health insurance (public, private or UNRWA) approximated 74.0% (Figure 2-8).

Figure 2-8. Percent of Respondents Who Have Valid Health Insuarnce Policy



Source: INJAZ Survey, 2015.

The results of the study show that the financial inclusion in Jordan is at a better stance that what is indicated in the previous studies, especially regarding individuals. These results are logical in a small country like Jordan in which the majority of its population resides in the major cities where banks and financial institutions locate heavily. Consequently, to enhance financial inclusion, the main recommendations are:

1- Enhancing the access to finance for the SMEs as their share from financing is very modest (7.3%) despite the efforts exerted in this regard. This might be attributed to short period of time that is not enough to judge on the results of the measures besides the need for more potential measures.
2- Promoting financial literacy especially with regard to the management of the household budget, and building and rooting the values and culture of leadership and establishing small projects instead of looking for jobs.
3- Enhancing the financial consumer protection and making consumers aware of the risks of excessive borrowing in order to promote responsible financing.
4- Continuing to develop electronic payment systems.

It is worth mentioning in this regard that the CBJ inserted a hyperlink in its website's homepage named "CBJ's plan and policies to promote financial inclusion in Jordan." The topic aims at spreading awareness and providing information to the general public about the programs available in this regard.[3]

On another hand, a recent study published by the Association of Banks in Jordan in June 2016 revealed that the number of depositors in banks in Jordan amounted to about two million depositors, of which about one third are women. Whereas the number of borrowers from banks reached 565 thousand borrowers nearly, of which 19.2% are women.

2.3 Legislative Structure of the Financial System

Undoubtedly, that the presence of an appropriate legislative framework for the financial system enhances the financial stability as experiences has demonstrated that inadequate supervisory and regulatory rules for the financial system contributed significantly to the deepening of several recent systemic banking crises. In this regard, the CBJ continuously validates the work and performance of the banking and financial institutions that are subject to its supervision in order to ensure the compliance of their financial positions with the laws, regulations, instructions and banking practices to achieve the requirements of the banking safety and monetary and financial stability. In line the strategy of CBJ targeting effective banking supervision that complies with international experiences and best practices, and in complementing its efforts that it exerted in establishing sound banking and financial regulations, the CBJ continued in the 2015 the comprehensive and regular review of the legislations governing the practices of the banking and financial institutions that are under its supervision umbrella.

2.3.1 Laws and Bylaws

2.3.1.1 The CBJ Law

A Royal Decree was issued approving the Central Bank Law Amendment No (24) of 2016 that was then published in the Official Gazette on 16-06-2016.

The amended law included several amendments; of which the most important is the expansion of the CBJ's objectives by stating explicitly that one of the objectives of CBJ is maintaining financial stability besides the primary goal of monetary stability. The amended law came to entrench legally the CBJ's role in contributing to the achievement of financial stability in Jordan as one of its primary goals, in addition to strengthening the governance of the CBJ's management board and expanding its supervisory authority and strengthening the independence of CBJ and its decisions.

Of the main tasks that were assigned to the CBJ in the amended law was the explicit and absolute authorization of the CBJ to establish the corporate governance rules in all of the banks and financial institutions that are under its surveillance and supervision.

Regarding the electronic payment systems, the amended law granted the CBJ the authority to regulate, monitor and supervise the national payment system and develop it in a way that guarantees providing a secure and efficient

[3] For more information, please visit the link http://www.cbj.gov.jo/arabic/pages.php?menu_id=385&local_type=0&local_id=0&local_details=0&local_details1=0&localsite_branchname=CBJ

payment, clearance and settlement systems in Jordan, besides anchoring the most important applied international principles in payment systems, such as treating the fund transfers or the resulting settlements from clearance of operations in the payment systems as final and irrevocable and cannot be undone or cancelled after their termination for any reason without prejudice to the rights of the parties involved.

The amended law reaffirmed the role of the CBJ as a depository center for the government securities and enhanced its role in granting advances that target financing business sectors and economic activities such as manufacturing, agricultural, microfinance, renewable energy and other business sectors and economic activities, with the possibility of expanding the monetary policy parties in accordance with the terms and conditions that the CBJ's management board deems appropriate to include any financial institution that the CBJ realizes that its activities do impact any of its objectives and tasks.

The amended law also detailed the role of CBJ in providing exceptional liquidity as a lender of last resort to the banks that might need liquidity in case of emerging situations that threaten monetary or financial stability in Jordan, besides expanding CBJ's authorities to set the required reserve ratio more flexibly in order to improve this tool in a way that facilitates the implementation of the CBJ tasks.

In line with the output of action plan aiming at strengthening national integrity system; the law was amended by a number of provisions that aim at strengthening the independence of the CBJ in all aspects including, but not limited to:

1. Eliminating all the legal provisions that allow the CBJ to grant facilities to the government.
2. Amending the mechanism of appointing and accepting the resignation so that the decision to appoint and accept the resignation of the governor/ chairman of the management board and the other board members, including the two deputy governors, is made by the cabinet and approved by a Royal Decree with the abolition of the requirement of the presence of the representatives of banks and other specialized lending institutions in the membership of the management board. This will help strengthen the independence of the CBJ's administration.
3. Increasing the number of members of the CBJ's management board to become nine instead of eight in order to enable the CBJ to form various committees that are needed to carry out its tasks, including Audit Committee and Risk Management Committee.

2.3.1.2 EXCHANGE LAW

The new Exchange Law No (44) for the year 2015 was authorized by the parliament to replace the old law No (26) for the year 1992. It was published in the Official Gazette on 18-10-2015. The new law was consensual between CBJ and exchange companies in a way that helps the best interest of the companies and their clients .

The issuance of the law comes in light of the significant developments and evident growth in the sector in the last two decades that made it (the sector) one of the most important vital sectors in Jordan and in response to the economic developments.

The new law forms the legislative framework that regulates the activity of the exchange sector in Jordan through the determination of the conditions and requirements of licensing, merging, liquidating, regulating and dealing with records that must be maintained, in addition to activating the role of the chartered accountant in auditing its businesses so that the scope of its functions and tasks are expanded in a way that commensurate with best practices. The law also contributed to the creation of the legal regulation of informing the companies of any decisions or instructions issued by the CBJ and the expansion of the role of the CBJ through the imposition of instructions for the exchange companies regarding the safe ratios and limits required to maintain the soundness of their finances and the size of the foreigners employed. Following the law approval, the legal basis for the formation of is set for forming a specialized committee that deals with the complaints sent to the CBJ on the services offered by the exchange companies.

The exchange sector is expected to witness economic and financial developments related to the expansion of types of companies that can be licensed to practice the exchange business. This in turn will result in a restructuring of the sector in compliance with legal and legislative requirements, besides removing the restrictions that bar the inflow of investments and capital inside and outside Jordan, allowing the licensing of branches of foreign exchange companies in Jordan and setting controls to make the work of the exchange companies go in line with economic changes and developments in the exchange sector. The new law includes the terms and conditions of licensing exchange companies, the capital requirements and an expansion of the role of CBJ through the imposition of instructions that set safe ratios and limits to maintain the soundness of their finances. It also allows for the exchange companies to borrow under certain conditions and on the approval of the CBJ.

The new law also defines the conditions related to the partners and the Board of Directors in terms of recruitment and businesses that are allowed, as well as firing the members of the Board of Directors. This law allows for undertaking measures and imposing tougher penalties on violations of exchange companies.

2.3.1.3 Electronic Transactions Law

The Electronic Transactions Law No (15) for 2015 was published in the Official Gazette on 17-05-2016. The law was prepared jointly by the Telecommunications Regulatory Commission (CRC) and the Ministry of Communications and Information Technology (MCIT). By this law, it is permissible for ministries, public official institutions, public institutions and municipalities to perform their transactions using electronic means subject to availability of electronic transactions requirements that are listed in the law and regulations issued thereunder. Under this law, every payment and electronic transfer company has to obtain a license to do so from the CBJ, where the payment and electronic funds transfer companies are subject to the control and the supervision of the CBJ in practicing its business. The MCIT is also responsible for the electronic documentation of the root certificate. The CRC is responsible for licensing and regulating the electronic documentation agencies in accordance with bylaws and instructions issued under the provisions of this law. The law imposed penalties against those who establish and publish fraudulent electronic documentation certificates or for any other illegal purpose.

The law assigned the MCIT as the institution responsible for electronic documentation of ministries, public official institutions, public institutions and municipalities.

The law also set requirements to be met in the electronic record in case any legislation conditioned giving original copies of notices or documents. It also specified all aspects related to the information sheet, like the cases in which the information letter is considered issued by the originator and how to determine the time and place of the sheet.

The law also specified the terms under which the electronic signature be considered authenticated and secured. In addition, the law stated the conditions under which the electronic document is transferable and the right of the holder of the electronic document.

Moreover, the law determined the role of the CBJ – through a bylaw to be issued for this purpose - in the work of the electronic payment systems and their technical and technological requirements, the requirements for issuing; dealing with; and resolving disputes that arise between the parties involved in electronic money transfer transaction, besides conditions, procedures and technical requirements for electronic checks and the specifications of the electronic system that must be applied to process, view and clear checks electronically.

Finally, the law imposed penalties against those who establish and publish fraudulent electronic documentation certificates or for any other illegal purpose.

2.3.2 Instructions

2.3.2.1 Corporate Governance of Islamic Banks

The corporate governance issue witnessed significant developments especially after the global financial crisis, as a number of specialized agencies and organizations such as the Organization for Economic Co-operation and Development (OECD) and Basel Committee on Banking Supervision (BCBS) and Financial Stability Board (FSB) announced a set of principles that help enhance corporate governance in banking institutions. In effect, the supervisory entities in the world countries as well as the international organizations focus on the importance of application of these principles. In light of these developments, the CBJ issued **Corporate Governance Instructions No. 58/2014 dated 30-09-2014** in a way that complies with best known international standards and practices. Consequently, the CBJ issued the **Corporate Governance of Islamic Banks Instructions No. 61/2015 dated 12-05-2015** that takes into consideration the relevant principles set by the specialized agencies and organizations mentioned previously, added to the publications of the Islamic Financial Services Board (IFSB) and the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI). Of the main principles of corporate governance is the segregation of responsibilities of the Chairman of Board of Directors and the General Director (Chief Executive Officer). Besides, none of the members of Board of Directors (including the Chairman) can hold an executive member position and he must not have any kinship to any of the senior members of the executive management of the bank or any of the members of the executive management of the affiliates up to the second degree. Moreover, there must be certain organizational and administrative structures under which responsibilities and authorities are clearly set and well determined to ensure effective supervisory frameworks.

The instructions entail treating all interest groups with transparency, justice and disclosure that enables these groups to evaluate the position of the bank, including its financial performance. Besides, the relationship between the management and interest groups must be constrained by accountability rules. The instructions also includes the appropriateness principles like educational and professional qualifications, efficiency, integrity, honesty and good reputation for the members of the Board of Directors and the senior executive directorates in banks in a way that ensures maintaining the soundness and resilience of the financial and managerial positions of banks and enhancing financial stability in Jordan.

2.3.2.2 DRAFT INSTRUCTIONS OF THE EXTERNAL AUDIT OF BANKS

The CBJ issued in 2016 the draft instructions for the external audit of the banks operating in Jordan. The draft included such issues as the requirements for external audit policy, standards for selecting the auditing firm and the auditing team (team lead and members), mechanism for nominating and recruiting auditing firm, minimum requirements for attaining independency and objectivity of auditing firm and team, duties and responsibilities of the Audit Committee of the Board of Directors of bank, the follow up of the work of the auditing firm during the auditing process, the reports that must be furnished to the Audit Committee by the auditing firm and the duties of the auditing firm towards the CBJ.[4]

2.3.3 SUPERVISORY MEMOS

The CBJ issued several supervisory memos in 2015, of which the most important are:

Memorandum No. 23/2/2/6714 dated 01-06-2015 including a methodology to deal with the Domestically Systemically Important banks (D-SIBs) as the global financial crisis revealed that the problems that some banks face do adversely affect financial and economic stability to a large extent in the relevant country and the world sometimes. And in the light of the large size of D-SIBs and their large market share of the financial services provided by the banking sector and their significant interlinkages with banks, other financial institutions and the economy as a whole, and to strengthen financial and economic stability in Jordan and implement the recommendations of the Financial Stability Board (FSB) and Basel Committee on Banking Supervision (BCBS) that there should be a framework for identifying and dealing with D-SIBs, the methodology was developed to identify these banks and calculate additional capital requirements. This methodology will be applied as of the date of application of the Basel III instructions (regulatory capital requirements).

Memorandum No. 10/2/4/11673 dated 21-09-2015 to banks operating in Jordan and its annex "the forms filling instructions and the means for reporting all operations that are suspected to be related to money laundering or terrorist financing." These instructions apply to all authorities that are subject to the provisions of Anti-Money Laundering Law that came into force on 01-10-2015.

Memorandum No. 10/01/1271 dated 25-01-2016 submitted to the banks operating in Jordan requesting the banks to adopt certified financial statements by an auditor when making credit decisions and emphasizing that banks obtain authentication Jordanian Society of Chartered Accountants on the accuracy of the signature of the chartered accountant on the clients' data.

Memorandum No. 10/2/4/2421 dated 16-02-2016 emphasizing to banks operating in Jordan not to grant check books the customers who are enlisted on the list of bounced checks.

Memorandum No. 10/2/4/6027 dated 04-25-2016 addressed to banks operating in Jordan emphasizing on the need for the SMS messaging service to be mandatory for all retail customers and not optional. The service must be linked to the nature of the transaction and not limited to just withdrawals. Moreover, they must be at no additional costs to clients. By the memorandum, the CBJ targets attaining integrity of the financial transactions carried out by banks through electronic means and security systems and their information.

Memorandum No. 1/1/5/13120 dated 18-10-2015 requesting the banks and payment companies operating in Jordan to take extra care from fraud on payment cards and emphasizing the need to take all precautionary measures and preventive actions to prevent the misuse or penetration of the cards.

Memorandum No. 10/2/4/7293 dated 24-05-2016 emphasizing to the banks operating in Jordan to stop granting facilities to their clients under various names (e.g., personal loan to refinance real estate, home improvement loan or equity release) for more than eight years, as these actions are inconsistent with Article (9/b) of the instructions of dealing with customers fairly and transparently No. (56/2012) dated 31-10-2012 related to not granting personal loans repayment for periods of more than eight years.

Moreover, the CBJ issued a press release on 30-04-2015 warning agents from dealing with some companies that claim their capacity to extend loans or mediate with commercial banks to extend loans without fees, as they are not licensed. The CBJ stressed on the licensed bank not to deal with such companies since they are not licensed to offer such service. Besides, it is not under the legal supervision of the CBJ. Besides, the decision to grant loans is an absolute authority of the licensed bank as it decides the possibility of granting the loan in light with its credit policy. Needless to say, the safe and valid path for obtaining loans is through directly applying to banks only.

[4] For further details on these instructions, the reader can refer to the website of the CBJ on the link http://www.cbj.gov.jo/uploads/External_Auditing_Instructions_Project_2_2016.pdf

CHAPTER THREE

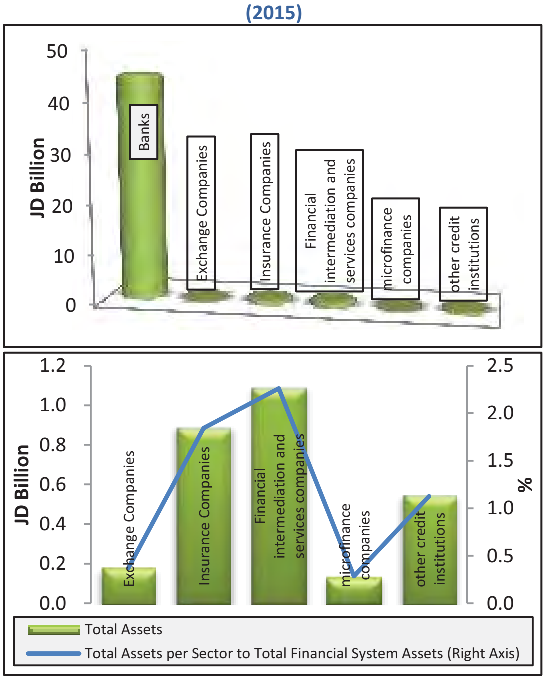
FINANCIAL SECTOR DEVELOPMENTS AND RISKS

3.1 INTRODUCTION

The financial system in Jordan encompasses banks, insurance companies, financial intermediation and services companies, exchange companies, microfinance companies, specialized credit institutions and other credit institutions.

The CBJ undertakes the responsibility of monitoring and supervising the banking sector and foreign exchange sector, besides the microfinance companies which became part of the CBJ's supervisory umbrella on 01-06-2015.

Figure 3-1. Total Assets of the Financial System in Jordan (2015)



Source: CBJ.

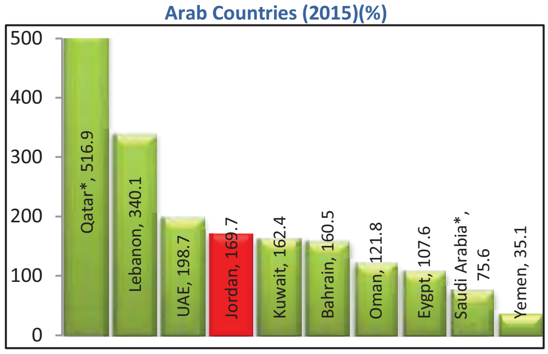
Whereas the Ministry of Industry, Trade and Supply and Amman Stock Exchange are responsible for monitoring and supervising insurance companies[5] and financial intermediation companies respectively. Regarding the other credit institutions, there is no agency responsible for supervising and monitoring their works. However, the Ministry of Industry, Trade and Supply is responsible for registering these institutions.

The licensed banks are the bulk of the financial sector in Jordan whose assets totaled JD48.0 billion at the end of 2015. Of which the assets of licensed banks formed 94.1% (Figure 3-1).

3.2 THE MOST IMPORTANT DEVELOPMENTS IN THE BANKING SYSTEM (ASSETS AND LIABILITIES) AT JORDAN BRANCHES LEVEL

Compared to the other countries in the region, the relative size of the banking system in Jordan to the size of the economy is considered large. The licensed banks' assets reached JD 45.2billion at the end of 2015, forming 169.7% of GDP compared to 174.6% at the end of 2014 – the fourth highest ratio amongst selected Arab countries after Qatar, Lebanon and United Arab Emirate (Figure 3-2).

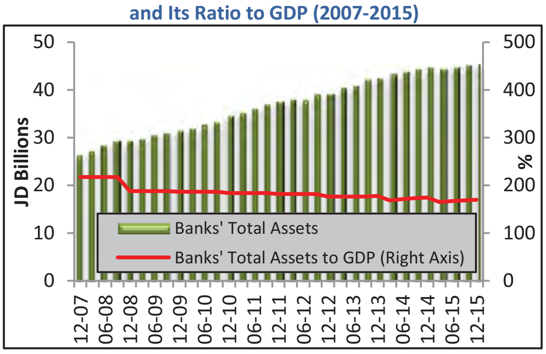
Figure 3-2. Banks' Total Assets to GDP for Jordan and Selected Arab Countries (2015)(%)



Source: Relevant central banks. * Data for 2014.

Despite this high ratio in Jordan, it followed a declining trend during the last nine years. It reached 217.2% at the end of 2007 and decreased to 169.7% at the end of 2015. The reason for this trend is attributed to the growth of GDP at higher rates than the growth of banks' assets (Figure 3-3).

Figure 3-3. Evolution of Operating Banks' Assets in Jordan and Its Ratio to GDP (2007-2015)



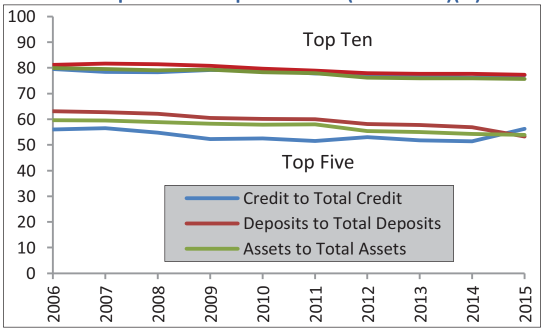
Source: CBJ.

Regarding the market share for banks (concentration), the assets of the largest five banks out of 25 banks approximated 53.9% of total assets of the licensed banks at the end of 2015. Whereas the assets of the largest ten banks out of 25 banks approximated 75.7% of total assets of the licensed

[5] The cabinet made a decision on 24-02-2016 so that the CBJ undertakes the responsibility of supervising the insurance sector. This is planned to take effect within two years.

banks at the end of 2015. It is worth mentioning that the market share for the largest five and ten banks is witnessing a continuous decline, as they reached 59.6% and 79.9% respectively in 2006. Therefore, the concentration ratios of the licensed banks are following a downward trend (Figure 3-4). Despite this, the concentration in the banking sector in Jordan is relatively high.

Figure 3-4. Concentration Ratio for Banking Sector in Jordan for Top Five and Top Ten Banks (2006-2014)(%)



Source: CBJ.

Regarding competitiveness and based on Herfindahl Index (HI), there was an improvement in the competitive stance of the banking sector in Jordan. The value of HI reached 11.9% at the end of 2007 and declined to 9.2% at the end of 2015, lower than its level at the end of 2014 of 9.5%. These numbers suggest that the competitiveness of the banking sector in Jordan is continually improving. The reason for the improvement in this competitiveness indicator is the licensing of three new banks during 2009, besides the improvements and developments in banks' products to increase their competitive capabilities. It is worth mentioning that the decline in the concentration ratios and the increase in the competitiveness in the banking sector in Jordan have positive impact on the financial stability in Jordan (Figure 3-5).

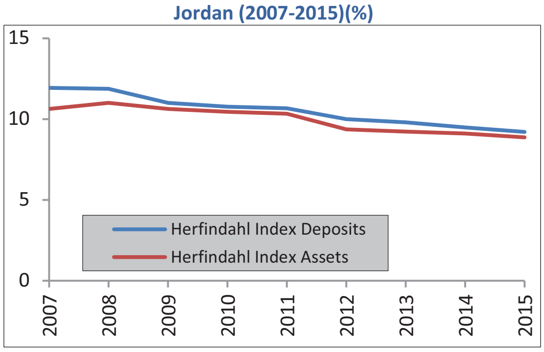
3.2.1 Ownership Structure in Banks

The capital share of foreigners in the total capital of licensed banks approximated 49.0% at the end of 2015. This high share of foreigners in ownership is one of the highest shares in the MENA region due to the absence of any kind of restrictions on these ownerships. It is worth mentioning that this share declined in 2010 and 2011. However, it returned to rise in 2012, reflecting the increased investors' confidence in the banking system in particular, and the Jordanian economy in general. Given that most of these properties are stable strategic contributions (Figure 3-6).

3.2.2 Use of Funds (Assets)

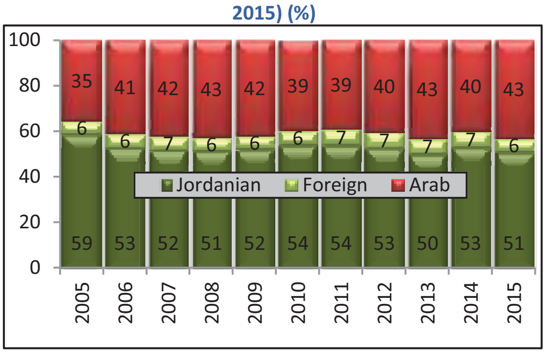
By reviewing the structure of the assets of banks operating in Jordan (uses of funds), it is noted that the credit facilities portfolio is still the largest component of the banks' assets which reached JD21.1 billion at the end of 2015, composing about 46.8% of banks' total assets, compared to 43.2% at the end of 2014 (Figure 3-7).

Figure 3-5. Herfindahl Index for Banks Assets and Deposits in Jordan (2007-2015)(%)



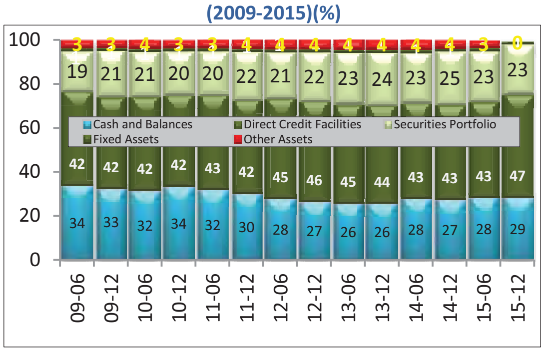
Source: CBJ.

Figure 3-6. Ownership Structure in the Banking Sector (2005-2015) (%)



Source: CBJ.

Figure 3-7. Assets Structure for Banking Sector - Uses of Funds (2009-2015)(%)

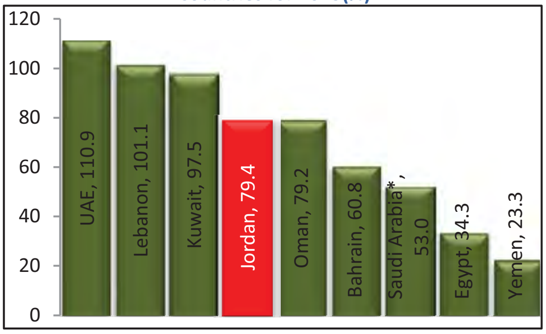


Source: CBJ.

The direct credit facilities grew by 9.6% at the end of 2015 to reach about JD21.1 billion. The same figure for 2014 was 1.8%. It is worth mentioning that the ratio of credit facilities to GDP approximated 79.4% at the end of 2015 compared to 75.3% at the end of 2014. In this regard, Jordan occupies the fourth rank among selected countries in the MENA region (Figure 3-8).

It is worth mentioning that the growth rate of household credit facilities (individuals and real estate) approximated 10.8% at the end of 2015, while the corporate facilities decreased by 10.9%. This means that there is a tendency in the banking sector to increase lending to households at the expense of corporate sector (Figure 3-9).

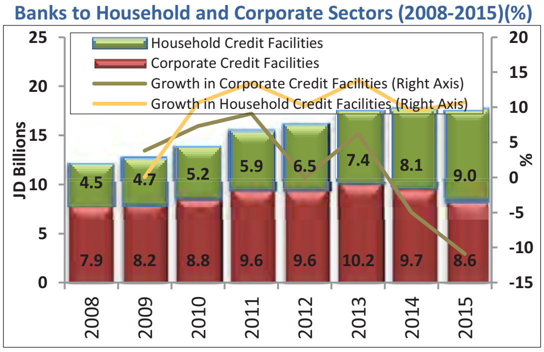
Figure 3-8. Credit Facilities to GDP for Jordan and Selected Arab Countries for 2015(%)



Source: CBJ.* Data for 2014.

It is worth mentioning that the growth rate of household credit facilities (individuals and real estate) approximated 10.8% at the end of 2015, while the corporate facilities decreased by 10.9%. This means that there is a tendency in the banking sector to increase lending to households at the expense of corporate sector (Figure 3-9).

Figure 3-9. Evolution and Distribution of Credit Facilities of Banks to Household and Corporate Sectors (2008-2015)(%)

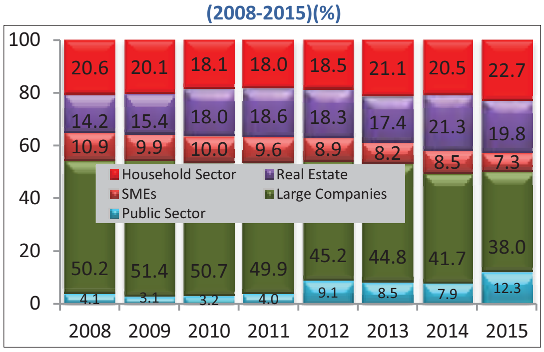


Source: CBJ.

Despite the positive possible impacts of the expansion of credit granted to household on the banking sector and the economy as a whole through diversifying credit portfolio and, hence, mitigating the possible risks that the banking sector might face. Also enhancing the households' consumption and spending and thus improving their living standards and boosting economic activity. The contribution of household sector in simulating economic growth is usually less than that of the corporate sector. The developments of household indebtedness in Jordan are discussed later in detail in a separate chapter.

With regard to the distribution of direct credit facilities, as mentioned earlier, credit facilities extended to the large companies still account for the largest percentage of the total credit facilities, but followed a downward trend since 2010 where it was 50.7% and decreased to reach 33.5% at the end of 2015. Whereas the facilities extended to the government and the public sector increased from 4.1 % in 2008 to 12.9% in 2015. Concerning the credit facilities extended to the SMEs, they reached 7.3% at the end of 2015 compared to 8.5% at the end of 2014. The MENA region's average ranges between 20.0%-25.0%. Chapter Two detailed the CBJ's measures to enhance the access to finance by the SMEs (Figure 3-10).

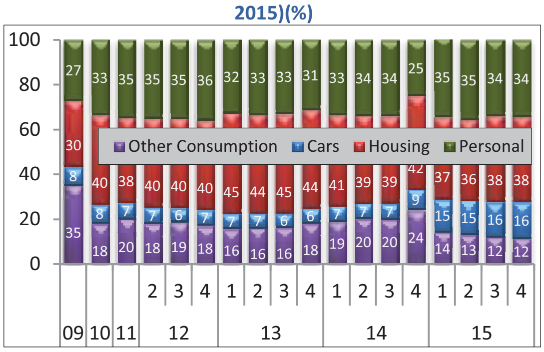
Figure 3-10. Distribution of Banks Credit Facilities by Sector (2008-2015)(%)



Source: CBJ.

With regard to credit extended to household sector, the largest share of the credit was in the form of household mortgage loans, which formed 37.9% of household debt at the end of 2015 compared to 41.9% at the end of 2014. The second largest share was for the personal advances that formed 34.0% of total household debt at the end of 2015, compared to 24.7% at the end of 2014. Auto loans accounted for 16.5% at the end of 2015, compared to 9.0% at the end of 2014 (Figure 3-11). It is worth noting that the variations in the household credit facilities components' shares is due mainly to regulatory changes, as banks reclassified these components to improve the accuracy of data classification especially after the launching of the Banking Supervision Database in 2015.

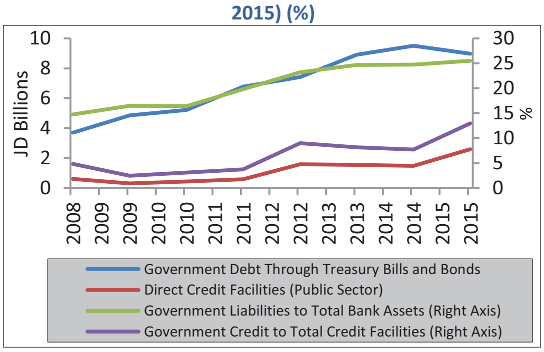
Figure 3-11. Distribution of Household Credit Facilities (2009-2015)(%)



Source: CBJ.

Concerning banks' exposure to government debt, through investing in government bonds or lending some public institutions with government guarantee, it is realized that there is a rise in the government indebtedness to banks through bonds and direct credit facilities, that reached about JD11.6 billion at the end of 2015 accounting for 25.5% of the total banks' assets, compared to JD11.0 billion at the end of 2014, representing about 24.7% of the banks' total assets. It is worth mentioning that the amount of government indebtedness to banks at the end of 2015 consisted of JD9.0 billion in the form of government bonds and JD2.6 billion in the form of facilities granted mostly to NEPCO and guaranteed by the government. The banks' exposure to government or government guaranteed debt as a percentage of bank assets rose from 14.8% at the end of 2008 to 25.5% at the end of 2015 (Figure 3-12).

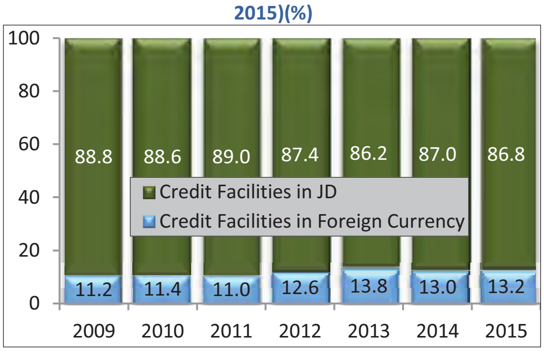
Figure 3-12. Exposure of Banks to Government Debt (2008-2015) (%)



Source: CBJ.

Regarding the classification of the facilities by currency, the facilities denominated in JDs are the major component of the credit facilities. They composed about 86.8% of total credit facilities at the end of 2014, recording a slight decrease from its counterpart in 2014 87.0% (Figure 3-13).

Figure 3-13. Distribution of Credit Facilities by Currency (2009-2015)(%)



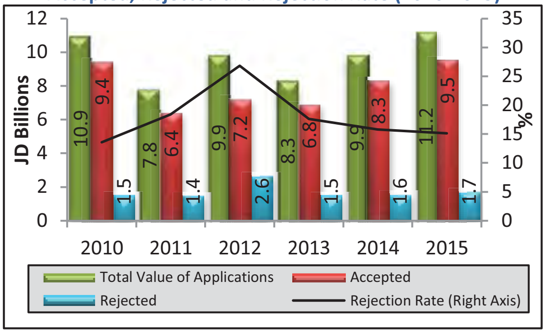
Source: CBJ.

3.2.2.1 Demand for Credit and Banks' Reaction

To measure the demand for credit, the CBJ updated the survey that it conducted in 2014 through analyzing the banks' data at the end of 31-12-2015.

The study revealed that the number of applications submitted to banks by households and companies for new facilities (applications by new customer in addition to the requests for increasing outstanding facilities) during 2015, about 359.4 thousand applications totaling JD11.2 billion. Of these, about 12.9% of the applications submitted were rejected. These totaled JD1.7 billion and accounted for 15.1% of the value of all submitted applications compared to 15.8% in 2014. Figure 3-14 reveals that this share has been declining since 2012.

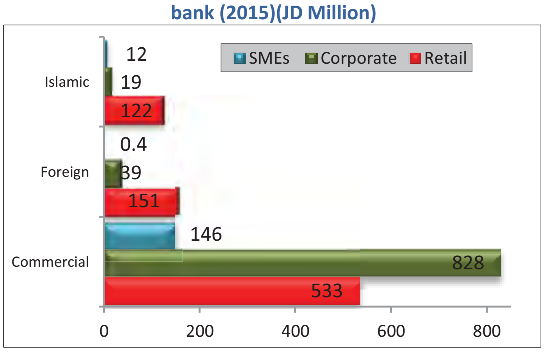
Figure 3-14. Total Value of Credit Applications to Banks – Accepted, Rejected and Rejection Rate (2010-2015)



Source: CBJ.

There was some improvement in the response of banks for demand for credit during the years 2013, 2014 and 2015 reflecting the improvement in the economic situation relative to the period (2010-2012) (Figure 3-15).

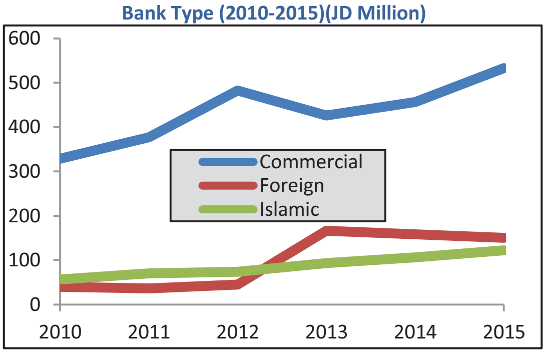
Figure 3-15. Rejected Applications per type of applicant and bank (2015)(JD Million)



Source: CBJ.

Regarding credit facilities to households, the applications for obtaining new credit facilities (applications by new customer in addition to the requests for increasing outstanding facilities) during 2015 reached about 346.0 thousand requests with a total value of JD4,368 million. Of them, 13.1% were rejected amounting JD805.0 million composing 18.4% of total value (same as percentage for 2014).

Figure 3-16. Value of Retail Credit Applications Rejected per Bank Type (2010-2015)(JD Million)



Source: CBJ.

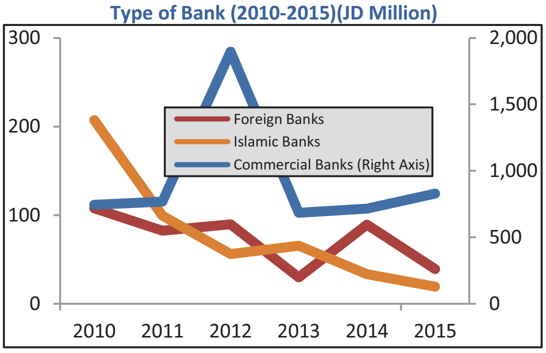
The highest rejection ratio was for applications submitted to foreign banks that approximated 33.2%, compared to 19.8%, and 10.0% for the applications submitted to commercial banks and Islamic banks respectively (Figure 3-16 and Figure 3-17).

Figure 3-17. Number of Accepted/Rejected Retail Applications Submitted to Banks (2010-2015) (000s)

Source: CBJ.

Regarding credit facilities extended to companies (large, medium and small ones) in 2015, the applications for new credit facilities (applications by new customers in addition to the requests for increasing outstanding facilities) reached about 13.3 thousand applications; with a total value of JD6,833 million. About 7.6% of them were rejected, totaling JD886.2 million composing 13.0% of total value compared to 14.1% in 2014. The highest rejection ratio was for application to foreign banks that approximated 19.0%, compared to 14.3% and 2.3% for applications to commercial banks and Islamic banks respectively (Figure 3-18 and Figure 3-19).

Figure 3-18. Value of Rejected Corporate Credit Applications by Type of Bank (2010-2015)(JD Million)



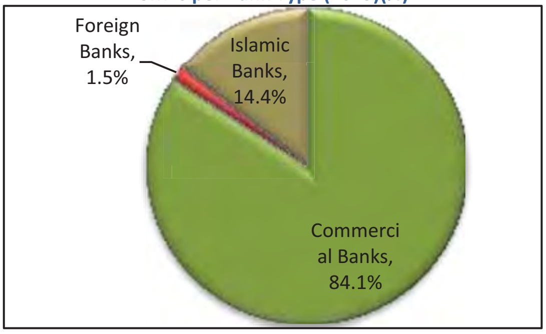
Source: CBJ.

Figure 3-19. Number of Accepted/Rejected Corporate Applications Submitted to Banks (2010-2015) (000s)

Source: CBJ.

Regarding credit facilities to SMEs, the number of applications formed 76.0% of total number of applications by companies. The applications for obtaining new credit facilities (applications by new customer in addition to the requests for increasing outstanding facilities) during 2015 reached about 10.2 thousand applications, with a total value of JD1,390 million. Of them, 17.8% were rejected compared to 13.9%. The highest value of credit applications by the SMEs was to commercial banks, forming about 84.1% of total value. The credit application to Islamic banks formed about 14.4% of total value, whereas those submitted to foreign banks were relatively small and composed 1.5% (Figure 3-20).

Figure 3-20. Distribution of Applications Value Applied by SMEs per Bank Type (2015)(%)



Source: CBJ.

The rejected applications of the SMEs formed 79.7% of total number of rejected applications submitted by companies. Moreover, the largest percentage of the rejected credit applications by the type of banks was by the Islamic banks that rejected 60.8% of total value of credit applications by the SMEs.

The survey analysis results are as follows:

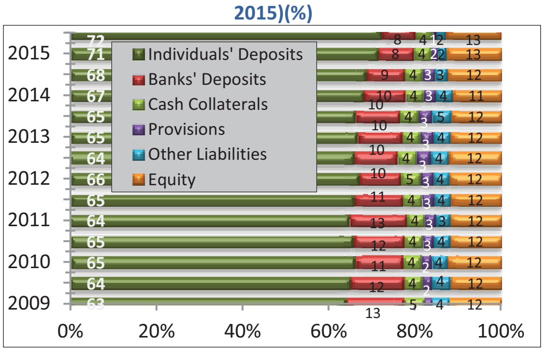
1. The credit applications by the existing customers formed the highest application percentage in 2015.
2. The household credit facilities maintained the highest percentage of the total credit facilities extended and of the new applications for credit during 2015.
3. The banks slightly eased their terms and conditions for approving credit applications for housing and SMEs. However, the credit approval standards for large projects and consumption credit have not changed.
4. The most important suggestions by banks regarding the measures needed to increase the supply of funds to SMEs:

- Offering new loan products and established funding programs targeting SMEs.
- Lowering cost of fund to SMEs.
- Sharing the risk with a third party like the Jordan Loan Guarantee Corporation (JLGC).
- Providing financial statements that are audited by a chartered auditor by companies.
- Providing consultancy and financial advice to SMEs by trained and specialized bank professionals.

3.2.3 SOURCES OF FUNDS (LIABILITIES)

Analyzing the sources of funds in the banking sector reveals that deposits represent the major source of funding, forming about 72.1% of total sources of funds as at the end of 2015 compared to 68.1% at the end of 2014, or a growth rate of 7.7% in 2015. Given that this proportion was relatively stable during the past few years, which reveals the stability of the funding sources for the banks working in Jordan, in general (Figure 3-21).

Figure 3-21. Liabilities Structure of Banking Sector (2009-2015)(%)



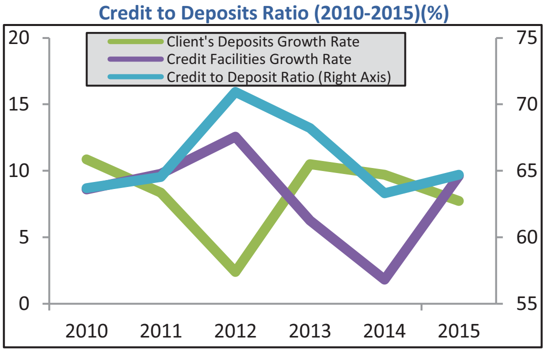
Source: CBJ.

Regarding the second source of funds, shareholders' equity, it increased from JD5.6 billion at the end of 2014 to JD5.8 billion at the end in 2015. The shareholders' equity at licensed banks grew by 3.6% in 2015 relative to 2014. These results reflect on sustaining the solvency of the banking system.

The third source of funds in terms of importance is banks' deposits, which have taken an upward trend since June 2012 to reach 10.2% of the total sources of funds for banks at the end of 2013. It then declined at the end of 2014 and 2015 to reach 8.9% and 7.8% of banks' sources of funds respectively.

Regarding the evolution of deposits in the banking system, the clients' deposits increased by 7.7% at the end of 2015 to reach about JD32.6 billion, which is lower than the growth in credit facilities which approximated 9.6%. Consequently, the ratio of credit facilities to deposits increased slightly from 63.3% at the end of 2014 to 64.7% at the end of 2015 (Figure 3-22).

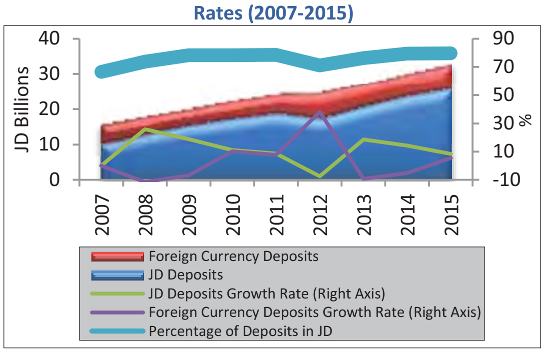
Figure 3-22. Deposits and Credit Facilities Growth Rate and Credit to Deposits Ratio (2010-2015)(%)



Source: CBJ.

Regarding the structure of deposits in terms of currency, the JD-denominated deposits occupied the largest share of deposits. Analyzing the changes in the share of JD-denominated deposits in total deposits reveals that this share witnessed an evident increase from 66.0% in March 2007 to touch 78.4% at the end of 2011. However, it returned to the declining trend and reached its record minimum of 71.0% at the end of 2012 due the tough economic conditions that Jordan faced in 2012. However, in 2013, 2014 and 2015, following the improved economic situation and conditions as shown by most economic and monetary indicators, the share of JD-denominated deposits returned to the upward trend to reach its peak in the last ten years of 79.7% of total deposits at the end 2015, which reflects positively on enhancing the confidence in the Jordanian Dinar as a saving currency and enhances financial and monetary stability in Jordan (Figure 3-23).

Figure 3-23. JD and Foreign Currency Deposits and their Growth Rates (2007-2015)



Source: CBJ.

3.2.4 Banking System Risks - Financial Soundness Indicators

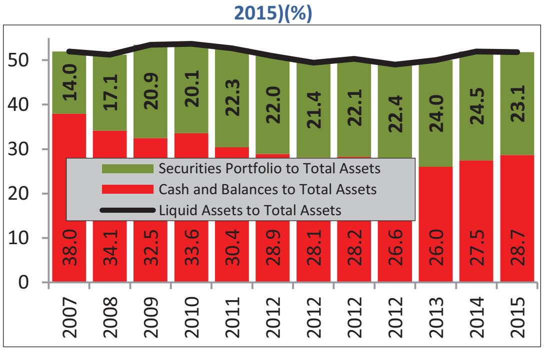
In spite of the Arab Spring conditions and the associated risks and significant challenges, the banking system in Jordan was generally capable of maintaining the resilience and the soundness of its financial and administrative positions. Next is a brief discussion of the main developments in the financial ratios and indicators for banks.

3.2.4.1 Liquidity

Jordanian banking system enjoys a safe liquidity position. The liquidity ratios at the end of 2015 indicated that the liquidity position of the banking system is safe and sound. In this regard, the share of cash and cash balances to total assets reached 28.7% at the end of 2015 compared to 27.5%, at the end of 2014, while the share of securities portfolio (highly liquid) to total assets roughed 23.1% at the end of 2015 compared to 24.5% at the end of 2014 Consequently, the highly liquid assets composed about 51.8% of total assets at the end of 2015 compared to 52.0% at the end of 2014, reflecting a relative stability in the level of banks' liquidity (Figure 3-24).

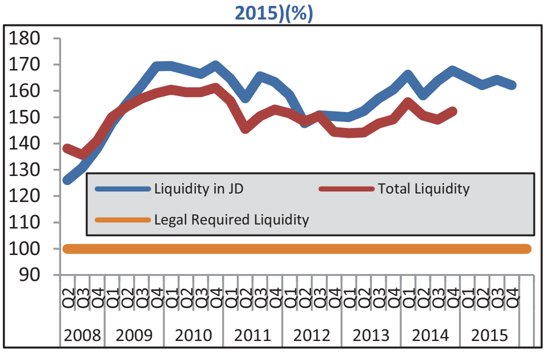
Regarding legal liquidity ratio enforced by the CBJ on banks (a minimum of 100.0%), the ratio decreased from 152.2% in 2014 to 151.3% in 2015 as a result of the improvement in credit extended by banks in 2015 relative to 2014 (Figure 3-25).

Figure 3-24. Components of Liquid Assets to Total Assets (2007-2015)(%)



Source: CBJ.

Figure 3-25. Legal Required Liquidity and Liquidity in JD (2008-2015)(%)



Source: CBJ.

3.2.4.2 ASSET QUALITY

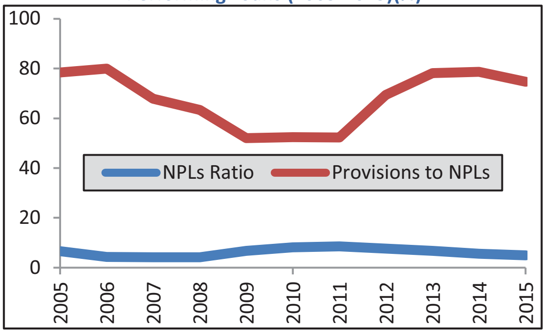
Concerning the ratio of non-performing loans to total loans, it continued its downward trend at the end of 2015 to touch 4.9% compared to 7.7%, 6.8% and 5.6% at the end of 2012, 2013 and 2014 respectively. This decline came as a result of the increase in credit facilities (denominator) and the decline in the size of NPLs (numerator). This decline in NPLs is attributed to the decision of banks to write off part of their NPLs besides the improvement in the economic conditions in Jordan that reflected positively on the ability of banks' clients to repay their debt. This reflects an improvement in the quality of banks' assets and in turn enhances financial stability in Jordan.

Regarding the coverage ratio for the non-performing loans, it continued its upward trend that started in 2011 to reach 78.7% at the end of 2014. However, the ratio declined to 74.7% at the end of 2015. In this regard, Jordan ranked in the middle among some selected countries in the region (Figure 3-26).

The comparison of the NPLs ratio in Jordan with some Arab countries reveals that Jordan ranked fourth amongst ten Arab countries. The ratio was lower in Jordan than Algeria, Egypt and the UAE, and higher than Bahrain, Lebanon, Kuwait, Oman, Qatar and Saudi Arabia (Figure 3-28).

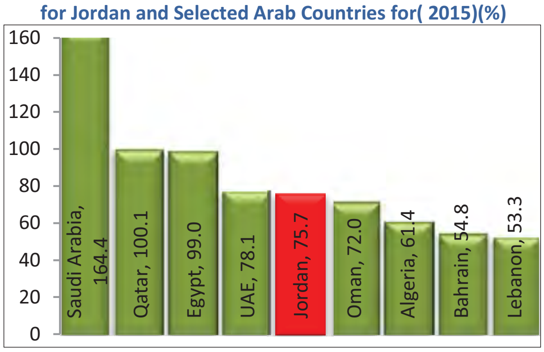
The balance of NPLs at the banking system reached JD1,356.2 million at the end of 2015, registering a decline from its counterpart amount at the end of 2014 by JD49.2 million. The balance of NPLs was JD1,405.4 million (Figure 3-27).

Figure 3-26. Non-Performing Loans Ratio and Provisions to Non-Performing Loans (2005-2015)(%)



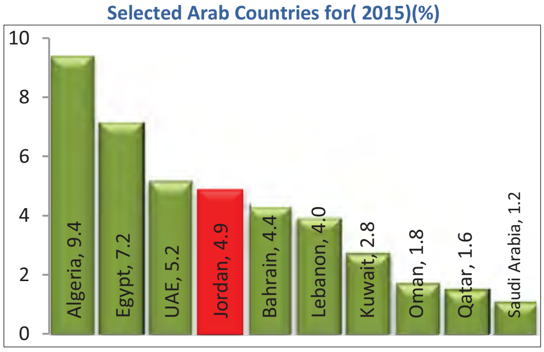
Source: CBJ.

Figure 3-27. Provisions Coverage Ratio for Non-performing Loans for Jordan and Selected Arab Countries for(2015)(%)



Source: CBJ. Other countries, IMF.

Figure 3-28. Non-Performing Loans to Total Loans for Jordan and Selected Arab Countries for(2015)(%)

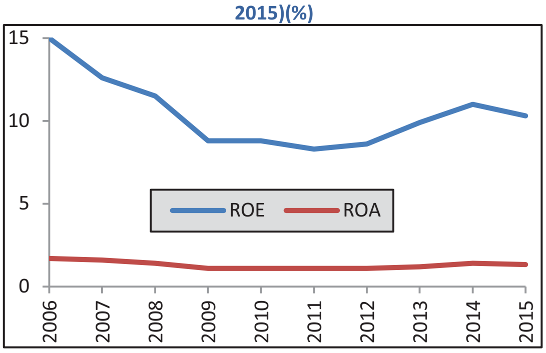


Source: CBJ. Other countries IMF.

3.2.4.3 PROFITABILITY

The rate of return on assets (ROA) at the banking system in Jordan witnessed a decrease during the years (2006-2010); it reached 1.7% at the end of 2006 and declined to 1.1% at the end of 2009 as a result of the repercussions of the global financial crisis on banks' profits. This rate kept its level until the end of 2012, to resume the increase at the end of 2013 and 2014 to reach 1.2% and 1.4% as a result of the sizeable growth in banks' profits. It then declined slightly in 2015 to reach 1.3%. This decline is attributed mainly to the increase of tax rate on banks' income from 30.0% in 2014 to 35.0% in 2015 (Figure 3-29).

Figure 3-29. Return on Assets and Return on Equity (2006-2015)(%)

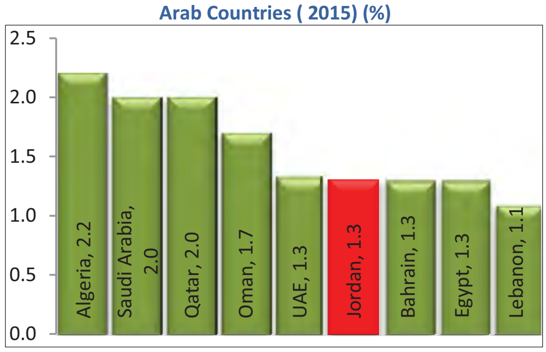


Source: CBJ.

Comparing Jordan with some Arab countries in this ratio reveals that Jordan's rank has relatively worsened in 2015, as it ranked sixth among nine countries whose data are available compared to the fifth rank in 2014. Lebanon was the lowest country-among the selected countries, with a rate of return on assets of 1.0%, whereas Algeria had the highest rate of return on assets of 2.2% (Figure 3-30).

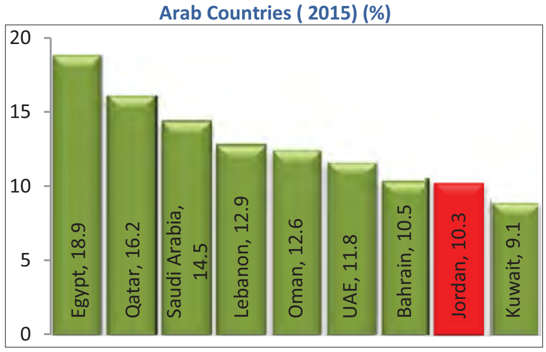
Regarding the return on equity (ROE), it followed a trend that is similar to the trend of the rate of ROA. It declined during the period (2006-2011) from 15.0% at the end of 2006 to 8.3% at the end of 2011, and then resumed the increase at the end of 2012, 2013 and 2014 to reach 8.6%, 9.9% and 11.0% respectively. However, it declined to 10.3% at the end of 2015 (Figure 3-31).

Figure 3-30. Average Return on Assets for Jordan and Selected Arab Countries (2015) (%)



Source: CBJ. Other countries IMF.

Figure 3-31. Average Return on Equity for Jordan and Selected Arab Countries (2015) (%)



Source: CBJ. Other countries IMF.

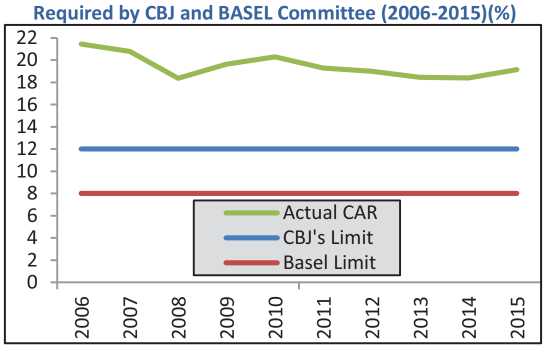
Compared to the year 2014, the ROE is still low relative to several Arab countries, as Jordan along with Bahrain occupied the second lowest rank in terms of the ROE after Kuwait, whose ratio was 9.1%, whereas Egypt had the highest rate of 18.9%. The low rate in Jordan compared to most of Arab countries is attributed to characteristics of the banks' in Jordan in general who are conservative and risk averse, besides their high levels of capital and the relatively high rates of income tax.

3.2.4.4 Capital Adequacy

The banking system in Jordan has high capital adequacy ratio that is the highest in the MENA region (after the United Arab Emirates). Capital adequacy ratio (CAR) in the banking sector in Jordan ranged between 18.0% and 21.0% during the years 2007-2015. It is generally higher by a comfortable margin, than the limit set by the CBJ of 12.0% and the limit specified by Basel Committee of 8.0%. The CAR increased to 19.1% at the end of 2015 from 18.4% at the end of 2014.

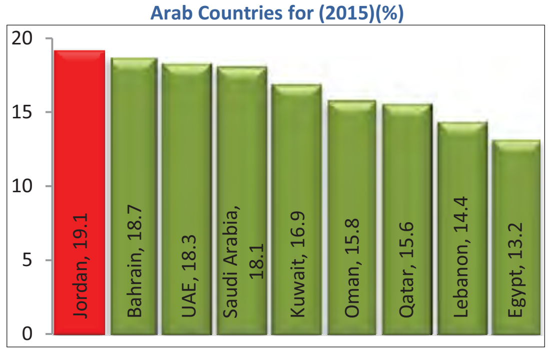
It is worth mentioning that capital adequacy ratio and the share of the tier one core capital are very close, which means that most of the banks' capital in Jordan is composed of tier one core capital that is the highest quality component of capital and the most capable of absorbing losses (Figure 3-32 and Figure 3-33).

Figure 3-32. Actual Capital Adequacy Ratio Compared with the Required by CBJ and BASEL Committee (2006-2015)(%)



Source: CBJ.

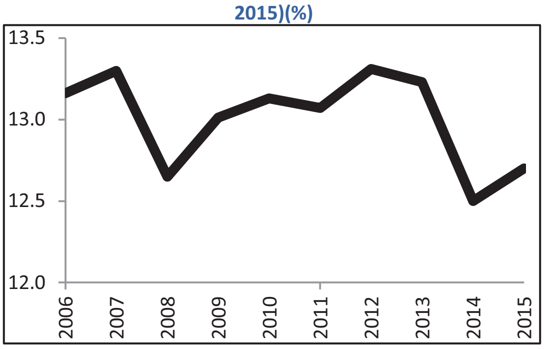
Figure 3-33. Capital Adequacy Ratio for Jordan and Selected Arab Countries for (2015)(%)



Source: CBJ. Other countries IMF.

Regarding the leverage ratio (ratio of equity to total assets), it has taken an upward trend since 2009 until the end of 2012, reaching 13.3%. Thereafter, it witnessed a slight decline at the end of 2013 and 2014 and reached 13.2% and 12.5% respectively. In 2015, however, it increased slightly to 12.7%. Despite these fluctuations, the leverage ratio is relatively high compared to the minimum limit of 6.0% that is set by the CBJ. This high ratio is attributed to banks' decisions to increase their capital and keep high portion of their profits, which is a positive indicator on the solid capital base of the licensed banks (Figure 3-34).

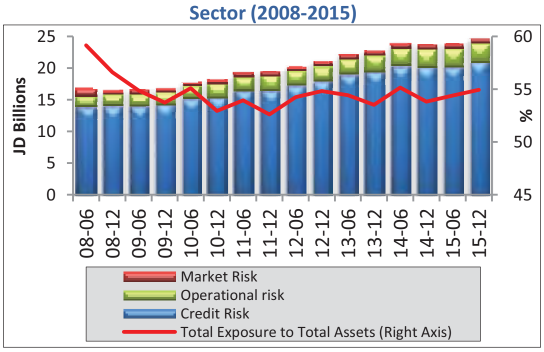
Figure 3-34. The Ratio of Banks' Equity to Total Assets (2006-2015)(%)



Source: CBJ.

As for the main risks faced by banks, the credit risk is in the forefront of these risks and constituted 84.2% of total risks at the end of 2015, followed by operational risk, which constituted 12.5% of total risk, and market risk, which constituted 3.3% of the total risk. These figures are close to their counterpart in 2014 signaling the relative stability of risk structure in banks without any substantial changes (Figure 3-35).

Figure 3-35. Components of Total Exposures in the Banking Sector (2008-2015)



Source: CBJ.

3.2.4.5 Operational Efficiency

Cost-income ratio (CIR) is the most important ratio that measures operational efficiency of the banks. A study conducted by McKinsey & Company showed that the banks whose CIR exceeds 55.0% suffer from operational efficiency weaknesses in terms of their ability to generate income while controlling expenses. Based on this study, a CIR number that is below 55.0% is a positive indicator of the operational efficiency of the banks.

The CIR for the banking system in Jordan approached 50.6% at the end of 2015. Consequently, the ratio continued its downward trend that since 2012 – the CIR approximated 60.3%, 54.2% and 52.8% in 2012, 2013 and 2014 respectively. This movement in the trend in CIR is an apparent indication of the improvement in the level of operational efficiency of banks in Jordan.

The driving reason for the decline in the CIR is the decline in total expenses due to the evident decrease in the total provisions in 2015. In other words, the improvement in the quality of banks' assets, reflected by the decrease in the NPLs ratio and the associated cut in the size of the provisions withheld during 2015 all had a positive impact on operational efficiency of banks. The aforementioned figured was the case for the banking system as a whole. On the individual level, there were variations among banks in operational efficiency, where the CIR varied in that it exceeded 55.0% for eight banks, exceeded 60.0% for six banks, and was less than 55.0% in 17 banks. This means that 68.0% of banks in Jordan enjoy a good level of operational efficiency relatively.

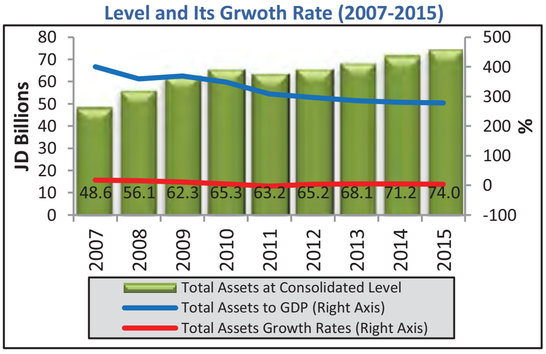
3.3 Banking System's Assets and Liabilities at Consolidated Level

3.3.1 Assets

The number of Jordanian banks that have affiliations outside Jordan is nine, with the majority being for Arab Bank, whose assets outside Jordan formed about 73.8% of total assets of the banking system on the consolidated level that approximated JD74.0 billion at the end of 2015, compared to JD71.2 billion at the end of 2014, attaining an increase of JD2.8 billion or 4.0% growth rate. The banking system's assets inside Jordan formed about 61.0% of total assets on the consolidated level.

Despite the increase in the banking system assets on the consolidated level from JD48.6 billion at the end of 2007 to JD74.0 billion at the end of 2014, the growth rate of these assets followed a clear downward trend as it declined from about 17.0% at the end of 2007 to 4.0% at the end of 2015 (Figure 3-36).

Figure 3-36. Evolution of Banks Total Assets at Consolidated Level and Its Grwoth Rate (2007-2015)



Source: CBJ.

This result is inevitably not unexpected as it is one of the repercussions of the political instability in the MENA region and the decline in the global economic activity, particularly in the Euro Zone, which both impacted Jordanian banks' branches located outside Jordan.

The ratio of the banking system assets on the consolidated level to GDP reached 278.0% at the end of 2015, compared to 280.0% at the end of 2014. However, it was much higher back at the end of 2007 and reached 400.0%. It is worth noticing that this ratio continuously followed a downward trend due the faster growth in the GDP compared to the growth of assets.

3.3.2 Credit Facilities

The balance of credit facilities on of the banking system on the consolidated level approximated JD34.6 billion at the end of 2015, or a growth of 8.0%, compared to JD32.0 billion at the end of 2014, or a growth of 2.8%. Regarding the ratio of credit facilities of the banking system on the consolidated level to GDP, it reached 129.9% at the end of 2015, compared to 125.9% at the end of 2014 (Figure 3-37).

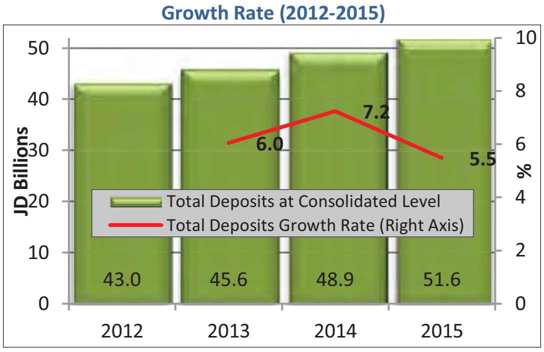
Figure 3-37. Evolution of Banks Credit Facilities at Consolidated Level and It's Ratio to GDP (2007-2015)

Source: CBJ.

3.3.3 Deposits

Clients' deposits in the banking system at the consolidated level reached JD51.6 billion at the end of 2015, attaining a Y-o-Y growth rate of 5.5%, compared to JD48.9 billion at the end of 2014, attaining a Y-o-Y growth rate of 7.2%. (Figure 3-38).

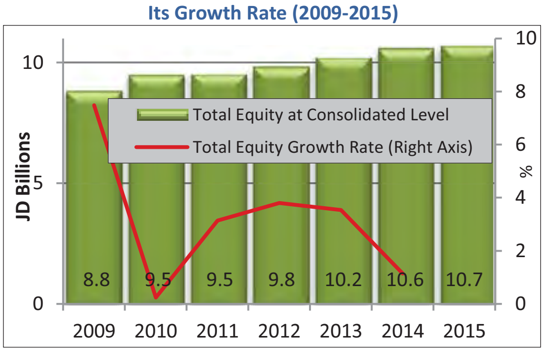
Figure 3-38. Evolution of Deposits at Consolidated Level and Its Growth Rate (2012-2015)



Source: CBJ.

3.3.4 Shareholders' Equity

Figure 3-39. Evolution of Banks' Equity at Consolidated Level and Its Growth Rate (2009-2015)



Source: CBJ.

The shareholders' equity at the banking system on the consolidated level reached JD10.7 billion at the end of 2015, compared to JD10.6 billion at the end of 2014. It is worth mentioning that the balance of shareholders' equity followed an upward trend since 2009. This enhances banks' solvency and capacity to confront risks and, hence, promotes the stability of the financial system ().

3.3.5 Net after-tax profit, return on assets and return on equity

3.3.5.1 Net after-tax profit

Net after-tax profit with the banking system at the consolidated level at the end of 2015 roughed JD811.5 million, compared with JD954.8 million at the end of 2014. This evident decline is attributed mainly to a notable rise in other provisions of one of the licensed banks (Figure 3-40).

Figure 3-40. Evolution of Banks Net Profit After Tax at Consolidated Level and Its Growth Rate (2007-2015)

Source: CBJ.

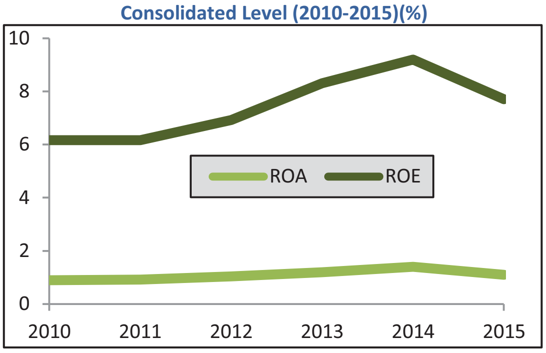
3.3.5.2 Return on Assets

The ROA in the banking system at the consolidated level was 1.1% at the end of 2015 compared to 1.4% at the end of 2014 (Figure 3-41).

3.3.5.3 Return on Equity

The ROE in the banking system at the consolidated level reached 7.7% at the end of 2015 compared to 9.2% at the end of 2014 (Figure 3-41).

Figure 3-41. Return on Assets and Return on Equity at Consolidated Level (2010-2015)(%)



Source: CBJ.

3.4 Developments in Non-Bank Financial Institutions' Sector

3.4.1 Insurance Sector

Insurance sector is one of the primary components of the financial system. It protects individuals and properties from risks, besides accumulating and investing national savings to support economic development. The contribution of insurance premiums to GDP reached 2.1% at the end of 2015.

The importance of this sector was stressed by the cabinet made a decision on 24-02-2016 that approved the following:

1. The CBJ undertakes the responsibility of supervising the insurance sector as one of its duties and in compliance with practices of several international supervisory institutions.
2. Transferring the supervision of the insurance sector to the CBJ within two years.
3. Updating the supervisory frameworks of the insurance business to comply with the market development with regard to the following:

- Improving the solvency of the insurance companies and setting clear and transparent standards to supervise the solvency of these companies.
- Setting regulatory requirements that ensure separating life insurance business from the other forms of insurance for the companies that offer both categories.
- Implementing the prudential regulatory requirements for the investment policies of these companies.
- Determining the supervisory authorities and responsibilities for the insurance companies that are part of a group of financial companies.
- Enhancing governance requirements for the insurance companies.

4. The formation of a committee headed by the Deputy Governor of the CBJ and the membership acting director of the insurance department at the Ministry of Industry, Trade and Supply, a representative of the Legislation and Opinion Bureau and a representative of the Ministry of Public Sector Development, for the purposes of implementing the aforementioned recommendations within a period not to exceed one year from the date of the Committee formation. The Committee must coordinate with the Jordan Insurance Federation in this regard.

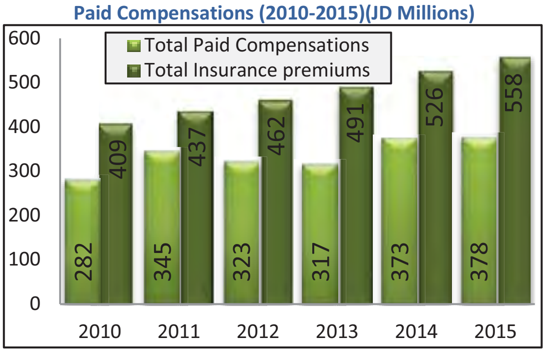
The number of insurance companies operating in Jordan is 25 companies, including one licensed life insurance company; one company that is licensed to practice general insurance business only, eight companies that provide general and health insurances, and 15 companies are licensed to practice general, health and life insurances, in addition to 931 agents offering insurance services support, including insurance agents, insurance brokers, loss settlement specialists, insurance business management companies, actuarists, insurance consultants, re-insurance brokers, the banks licensed to practice insurance business, write-off delegates and the re-insurance brokers situated outside Jordan.

Total assets of insurance companies in Jordan approximated JD887.0 million at the end of 2015, compared to JD843.0 million at the end of 2013; a growth rate of 5.2% (Figure 3-42).

Figure 3-42. Evolution of Insurance Companies Total Assets (2005-2015)(JD Millions)

Source: Annual Insurance Business Report 2014 and Preliminary Annual Financial Reports of Insurance Companies, 2015.

Figure 3-43. Evolution of Insurance Total Premiums and Total Paid Compensations (2010-2015)(JD Millions)



Source: Annual Insurance Business Report 2014 and Preliminary Annual Financial Reports of Insurance Companies, 2015.

Preliminary data shows that the total premium payments inside Jordan reached about JD558.0 million at the end of 2015, compared to JD526.0 million at the end of 2014, at a Y-o-Y growth of 6.1%. Moreover, the total compensation paid increased from JD373.0 million at the end of 2014 to JD378.0 million at the end of 2015; growing by 1.3% (Figure 3-43).

As for the outcome of the insurance companies business, the 2015 data shows that it attained a net before-tax profit of JD25.0 million compared to JD33.0 million at the end of 2014. Moreover, insurance companies achieved an increase in equity form JD331.0 million at the end of 2014 to JD341.0 million at the end of 2015 (Table 3-1).

Table 3-1. Insurance Sector Developments (2010-2015) (JD Million)

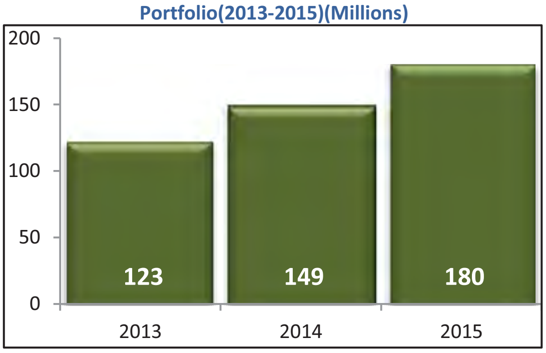
	2011	2012	2013	2014	2015
Total investments	455.0	471.0	500.0	524.0	541.0
Total Assets	724.0	739.0	798.0	843.0	887.0
Equity	315.0	311.0	316.0	331.0	341.0
Total premiums written in Jordan	437.0	462.0	491.0	526.0	558.0
Total compensation of premiums written in Jordan	345.0	323.0	317.0	373.0	378.0
Paid-In Capital	295.0	280.0	281.0	269.0	277.0
Net profit after tax	(0.2)	9.0	18.0	33.0	25.0

Source: Data for the period (2011-2014) is obtained from Jordan Insurance Report. 2015 Data are obtained from preliminary financials for the insurance companies.

3.4.2 MICROFINANCE SECTOR[6]

Microfinance sector started its business in Jordan since 1994 and grew rapidly in last few years. Microfinance loans achieved a constant growth rate during the period (2013-2015) of 21.0%. These high growth rates are a clear indication of the size of the demand for the products and services of the microfinance industry.

Figure 3-44. Evolution of Microfinance Companies' Lending Portfolio(2013-2015)(Millions)



Source: Tanmiya Report for the 4th Quarter, 2015.

The total loan portfolio of the microfinance companies approximated JD180.0 million at the end of 2015 compared to JD149.0 million at the end of 2014. The number of borrowers reached 357,777 borrowers at the end of 2015 compared to 325,744 borrowers at the end of 2014 at a growth rate of 9.8%. Moreover, the average value of loans increased from JD650.0 at the end of 2014 to JD753.0 at the end of 2015, at a growth rate of 15.8% (Figure 3-44).

Microfinance institutions target their services to the borrowers from outside the Capital Amman as a contribution to social and economic developments across Jordan.

3.4.2.1 THE ACTIVITIES OF MICROFINANCE SECTOR OUTSIDE THE CAPITAL

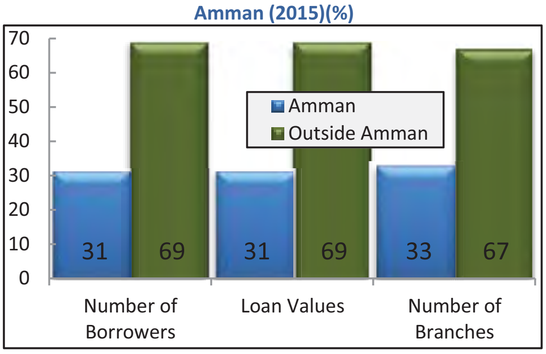
The microfinance sector's financing concentrated outside the capital. In this regard, 69.0% of borrowers, 69.0% of loans and 67.0% of microfinance companies are located outside the Capital Amman. The number of borrowers inside Amman grew by 6.0% during 2015, compared to 11.0% outside Amman (Figure 3-45).

In this regard, the Amman occupied the largest share of loans of 39.2%, followed by Irbid, Zarqa and Balqa with shares of 15.0%, 8.7% and 8.7% respectively – as per 2015 data (Figure 3-46).

3.4.3 FINANCIAL LEASING INSTITUTIONS

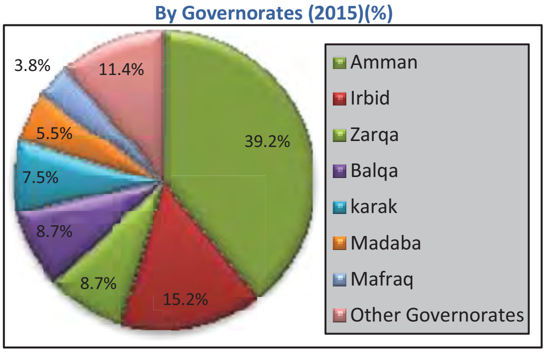
Total assets of leasing companies in Jordan approximated JD327.1 million at the end of 2015 compared to JD271.3 million at the end of 2014, representing a growth rate of 20.5%. Shareholders' equity increased from JD184.8 million at the end of 2014 to reach to JD205.5 million at the end of 2015. Concerning the business outcome of the leasing companies in Jordan, the ROE increased from 7.5% at the end of 2014 to 8.1% at the end of 2014. ROA also increased from 5.1% at the end of 2014 to 5.3% at the end of 2015 (Table 3-2).[7]

Figure 3-45. Activity of Microfinance Sector Inside and Outside Amman (2015)(%)



Source: Tanmiya Report for the 4th Quarter, 2015.

Figure 3-46. Distribution of Microfinance Companies Loans Value By Governorates (2015)(%)



Source: Tanmiya Report for the 4th Quarter, 2015 & CBJ's Calculations.

Table 3-2. Financial Leasing Institutions Developments (2013-2015) (JD Million)*

	2013	2014	2015
Revenues	24.4	26.5	30.0
Paid-In Capital	100.0	101.0	111.0
Assets	249.1	271.3	327.1
Shareholders' Equity	174.2	184.8	205.5
After-Tax Profit	12.7	13.4	15.7
ROE (%)	7.8	7.5	8.1
ROA (%)	5.3	5.1	5.3

* Unless otherwise indicated.

Source: (1) Preliminary annual budgets of financial leasing companies affiliated with banks. (2) CBJ Calculations.

It is worth mentioning that the number of financial leasing companies reached 34 companies in 2014, including eight subsidiaries of banks that accounted for the bulk of the financial leasing activity in Jordan.

[6] This part is based on the 2015 Tanmiya [Development] report for the 4th quarter.

[7] Data includes seven financial companies that are subsidiaries of banks that accounted for the bulk of the financial leasing activity in Jordan. The eighth company started its business in 2015. The financial leasing provided by the Islamic banks was not included in the data.

3.4.4 CURRENCY EXCHANGE SECTOR

The exchange sector witnessed a remarkable development in terms of coverage and size of business. The 2014 figures reveal that the number of exchange companies licensed in Jordan reached 141 companies operate through headquarters, in addition to 125 branches that are distributed across all governorates in Jordan - a total of 266 exchange entities as at the end of 2015 (Table 3-3).

Table 3-3. Foreign Exchange Companies and Their Branches (2015)(Count)

Governorate	Companies	Branches	Total
Capital	91	80	171
Zarqa	13	11	24
Irbid	9	10	19
Aqaba	7	8	15
Other Governorates	21	16	37
Total	141	125	266

In light of the developments that the exchange sector witnessed and evident growth of the sector in the last two decades that made the sector one of the most important and vital sectors in Jordan. And in response to the economic developments and changes, the Currency Exchange Law No. 44 for the year 2015 was issued on 18-10-2015 to replace the old law No. 26 of the year 1992.

The new law represents the legislative framework that regulates the currency exchange activity in Jordan through specifying the terms and conditions for licensing, merging, liquidating and regulating exchange companies, besides dealing with records that must be kept, in addition to activating the role of chartered accountant in auditing at the exchange companies' business in terms of expanding the scope of its functions in compliance with best practices. The law also contributed to the creation of the legal requirements for informing the companies of any decisions or instructions issued by the CBJ and the expansion of the role of the CBJ through the instructions on the ratios and safe limits for the safety of its finances and the size of employment of non-Jordanian labor. The law lays down the legal basis for the formation of an ad hoc committee to deal with complaints received by the CBJ and related to the services offered by these companies.

The new law represents the legislative framework that regulates the activity of the exchange sector in Jordan through determining the legal forms of exchange companies and their capital and supervisory tools (both onsite and offsite), as well as identifying the types of transactions that the exchange companies are allowed to perform, in addition to specifying the sanctions in the event of any violation of the Currency Exchange Law. A set of instructions and decisions were released under the Law to determine the requirements and the detailed procedures for organizing the currency exchange profession in Jordan (Table 3-4).

Table 3-4. Selected Indicators for the Currency Exchange Sector in 2015 (JD Million)

Indicator	JD Million
Business size*	179.7
Capital	81.9
Financial guarantees offered	25.8
Purchase of foreign currency**	7,814.0
Sales of foreign currency**	7,500.0
Return on capital (%)*	4.1
Return on assets (%)*	1.9

* For 2014. ** Preliminary.

The CBJ practices its supervision on the currency exchange sector both onsite and offsite. The offsite supervision mainly entails studying and analyzing the periodic statistical data and the audited financial statements of the exchange companies and proposing recommendations to policymakers. Whereas the onsite supervision conducted through the on-site inspection teams verifies the compliance of the companies operating in the exchange sector with all laws and instructions in force, in addition to the role of external auditors of the exchange companies and related parties as per provisions of the law.

3.4.5 SOCIAL SECURITY CORPORATION[8]

The social security corporation (SSC) has a major contribution in the society as the social security umbrella includes about 68.8% of employees in Jordan and 43,439 active firms, of which 61.3% are located inside the Capital Amman. It is worth mentioning that 98.8% of active firms subscribed to the SSC are private sector firms – as revealed in the SSC annual report 2014. Added to its vital role in the society, the SSC has an important contribution to the stability of the financial system in Jordan through its large investments that include investing in financial and non-financial assets and lending the government through treasury bonds. The SSC, by structure, has the following characteristics:

- It has a huge investment capacity and a long-term investment horizon, as it invests its capital to finance the retirement of individuals of various ages, which helps enable the SSC to undertake investments of different terms and maturities. It also helps diversify the risk portfolio for various maturities. This policy is especially vital during financial crises when market suffers from liquidity shortages. In this regard, the SSC's investment formed about 27.9% of GDP at the end of 2014.
- The SSC invests using self-financing, as its source of funds are SSC's subscribers' deductions not borrowings or deposits (like banks). Therefore, SSC is not exposed to high leverage or risks of mismatch in the maturities of sources and uses of funds. These two possible threats are actual factors that led to failures of international banks

[8] Even though the SSCs are not considered non-bank financial institutions, the stability reports in most countries do include them within this category for their vital role in enhancing financial stability through their diversified investment portfolio that is allocated between financial and non-financial assets.

during the global financial crisis. Therefore, the SCC cannot be a possible source of systemic risk in the financial system. For example, the subscriptions of employees and employers are retained for a long period and cannot be withdrawn, contrary to deposits in banks, implying that the funds are protected against unexpected withdrawals.

Given the importance of the role of the SSC in stimulating investment and in order to utilize its funds optimally, it established the Social Security Investment Fund (SSIF) in 2002 and began its work at the beginning of 2003 in order administer the task of investing the SSC's funds to obtain significant and regular returns while maintaining the value of its assets and securing the necessary liquidity to meet the obligations of the SSC. The SSIF's assets totaled JD7,445 million approximately at the end of 2015, compared to about JD6,724.2 million at the beginning of the same year, registering a growth of 10.7% and by JD720.7 million.

Table 3-5. Distribution of SSC Investment Portfolio

Portfolio	2014	2015
Money Market Instruments	1,277.50	1,727.90
Securities	2,280.00	2,438.60
Loan	138.40	109.70
Investment in Stocks	2,141.50	2,192.20
Foreign Investments	26.90	26.40
Real Estate	416.70	537.90
Tourism	282.00	284.10

Source: the Social Security Investment Fund.

The SSIF also achieved a net profit of JD266.8 million at the end of 2015, compared to JD319.7 million at the end of 2014; a decrease of JD52.9 million by 16.5%. The SSIF investment portfolios are composed of seven main portfolios (Table 3-5).

The SSIF's activities are spread over various economic activities, as the SSIF is the second- banks being the first- largest buyer of treasury bills and bonds, government bonds and government-guaranteed bonds that are allocated between money-market portfolio (matures in less than a year) and securities portfolio (matures in a year or more). Besides, the SSIF has a loan portfolio including direct loans and multi-bank loan. The real estate portfolio includes lands, commercial complexes and buildings. The tourism investments portfolio is administered by the National Company for Tourism Development (NCTD). The NCTD is a fully owned company by SSC that is responsible for managing hotels and tourist facilities that are owned by the SSC. Moreover, the SSC has a foreign investment portfolio as a way to diversity its investment portfolios and mitigate risks. Of course, the SSIF abides by preset regulations and constrains for investments. It includes foreign currency investments outside Jordan and investment funds.

It is worth noting that SSC is considered a strategic investor in the ownership of several banks in Jordan. The total capital invested in banks approximated JD254.2 million as of March 2016, forming 7.9% of the capital of Jordanian banks (Table 3-6).

Table 3-6. Distribution of SSC Ownership in Jordanian Banks (March 2015)

Bank	Value (JD Million)	Share (%)
Jordan Kuwait Bank	21.04	21.04
Jordan Commercial Bank	20.83	19.84
Arab Bank PLC.	102.47	15.99
Housing Bank for Trade & Finance	38.78	15.39
Jordan Ahli Bank PLC	17.50	10.00
Capital Bank of Jordan	16.83	9.27
Jordan Dubai Islamic Bank	5.97	5.97
Cairo Amman Bank	9.27	6.67
Bank al Etihad	5.83	5.29
Jordan Islamic Bank	7.32	4.88
Arab Jordan Investment Bank	6.12	4.08
Bank - ABC	2.26	2.05
Total	254.22	7.90

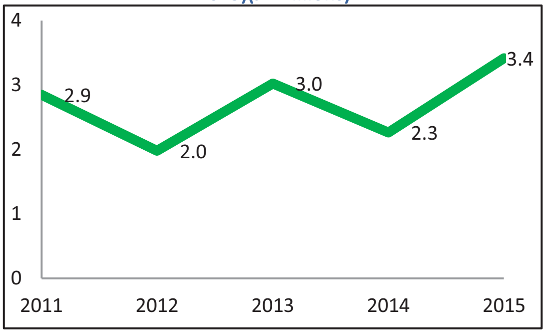
Source: Securities Depository Center.

3.4.6 Amman Stock Exchange (ASE)

ASE indices witnessed varying performance during 2015 compared to the previous year. During 2015, the trading volume increased by 51.0%, whereas share price index weighted by free float by 1.3%. On the other hand, the market value of shares listed on ASE decreased by 0.5% and reached JD18.0 billion, representing 70.7% of GDP. The net investment by non-Jordanians recorded a net inflow by JD10.6 million during 2015. Following is a summary review the most important performance indicators of the ASE during 2015:

1. The trading volume in ASE increased by JD1,153.7 million to reach JD3,417.1 million at the end of 2015. This increase is the outcome of the following factors:
   - Increase in the trading volume of the financial sector by JD837.0 million.
   - Increase in the trading volume of the services sector by JD350.0 million.
   - Decrease in the trading volume of the manufacturing sector by JD33.3 million.
2. The market value of shares listed on ASE decreased by JD97.9 million and reached JD18.0 billion, representing 70.7% of GDP.
3. The number of traded shares increased by 264.0 million shares to reach 2,858.8 million shares, compared to 2,321.8 million shares at the end of 2014. Moreover, the number of executed contracts decreased to about 899 thousand contracts at the end of 2015 compared to about 956 contracts at the end of 2014. Regarding, the distribution of traded shares by sector, the financial sector had the largest share that composed about 68.7% of traded shares in 2015, followed by the services and manufacturing sectors that composed 21.2% and 10.1% respectively (Table 3-7).

Figure 3-47. Trading Volume in Amman Stock Exchange (2011-2015)(JD Billions)



Source: CBJ. Monthly Report.

Table 3-7. Relative Importance of Trading Volume by Sector (2011-2015)(%)

Sector	2011	2012	2013	2014	2015
Financial	62.6	60.1	73.4	66.8	68.7
Manufacturing	19.4	19.5	13.1	16.7	10.1
Services	18.0	20.4	13.5	16.5	21.2

Table 3-8. Purchases and Sales of Stocks in ASE by Non-Jordanian Investors (2011-2015) (JD million)

	2011	2012	2013	2014	2015
Total bought	555.8	322.9	939.5	362.7	981.7
Arab	364.8	227.7	818.5	262.1	894.3
Foreigners	191.0	95.2	121.0	100.6	87.4
Total Sold	477.2	285.2	792.6	384.8	971.1
Arab	335.4	225.8	693.2	247.8	873.5
Foreigners	141.8	59.4	99.4	137.0	97.6
Net Investment	78.6	37.7	146.9	(22.2)	10.6
Arab	29.4	1.9	125.3	14.3	20.7
Foreigners	49.2	35.8	21.6	(36.5)	(10.1)

With respect to transactions of the non-Jordanian investors in the ASE, it recorded a net inflow of JD10.6 million during 2015, compared to an outflow of JD22.2 million during the previous year. The value of bought shares by the non-Jordanian investors, reached about JD981.7 million during 2015, while the value of sold shares by the non-Jordanian investors roughed JD971.1 million (Table 3-8).

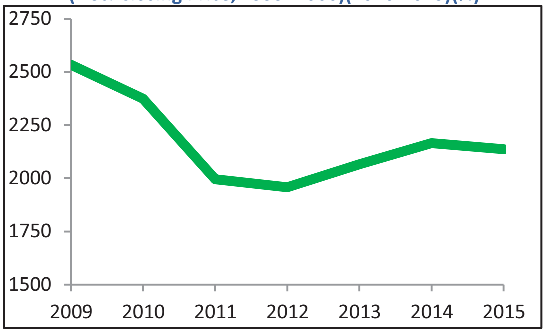
3.4.6.1 Free Float Share Price Index (FFSPI)

The FFSPI reached 2,136.3 points at the end of 2015, recording a decrease of 29.2 points from its level at the end of the previous year. This decline was due to the decline in the FFSPI of the financial, services and manufacturing sectors by 14.7 points (0.5%), 68.1 points (3.8%) and 3.2 points (0.2%) respectively in 2015 from their counterparts in 2014.

3.4.6.2 Weighted Share Price Index

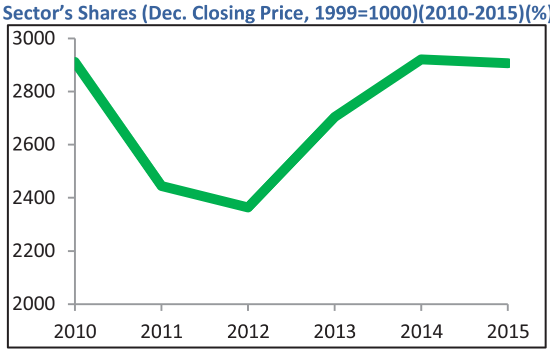
The WSPI declined in 2015 by 7.7 points from its level in 2014 to reach 4,229.9 points, compared to a decline by 99.1 points in 2014 from its level in 2013. This decline is attributed to the decline in the SPI of the services sector by 70.2 points, compared to a decline of 43.9 points in 2014.

Figure 3-48. Market Capitalization Weighted FFSPI of Shares (Dec. Closing Price, 1999=1000)(2010-2015)(%)



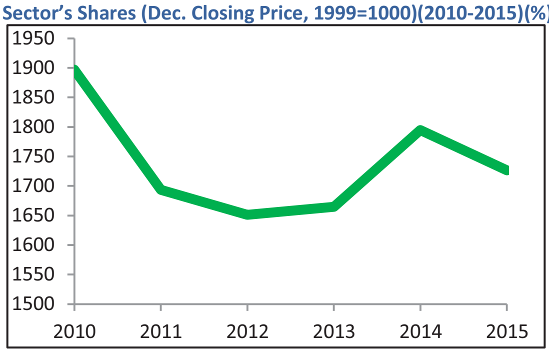
Source: CBJ. Monthly Report.

Figure 3-49. Market Capitalization Weighted FFSPI of Financial Sector's Shares (Dec. Closing Price, 1999=1000)(2010-2015)(%)



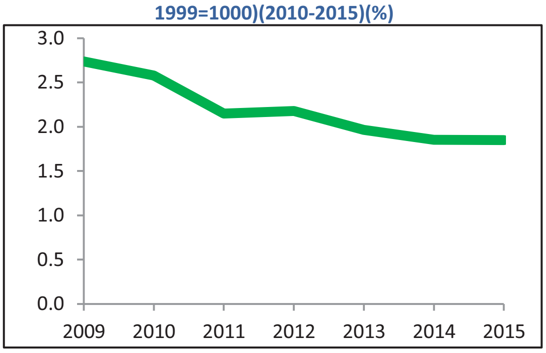
Source: CBJ. Monthly Report.

Figure 3-50. Market Capitalization Weighted FFSPI of Service Sector's Shares (Dec. Closing Price, 1999=1000)(2010-2015)(%)



Source: CBJ. Monthly Report.

Figure 3-51. Market Capitalization Weighted FFSPI of Manufacturing Sector's Shares (Dec. Closing Price, 1999=1000)(2010-2015)(%)



Source: CBJ. Monthly Report.

Chapter Four

Non-Financial Sector Developments and Risks

4.1 Household Sector

4.1.1 Exposure of Banks and Other Financial Institutions to Household Sector

In the course of the follow-up of the developments in the household debt, the ratio of household debt for the year 2015 was calculated using the same methodology that was outlined in the JFSRs for the previous years. Where the household indebtedness to the banking sector was the driving factor used in the calculation due to the dominance of this sector over other sectors in the financial system in terms of credit extended. In addition to the information that has been obtained for the microfinance sector, the public shareholding companies that extend loans and financial leasing companies.

4.1.2 Household Indebtedness to Banks and Non-Bank Financial Institutions

Table 4-1 shows the evolution of household debt with banks and non-bank financial institutions during the period (2012-2015). As shown in the table, the household debt rose from JD8.8 Billion at the end of 2014 to JD9.7 million at the end of 2015, at a growth rate of 10.5% compared to 15.7% at the end of 2014.

Table 4-1. Household Debt at Banks and Non-Banking Financial Institutions (2012-2015)

Household Debt		2012	2013	2014	2015
Banking Sector	JD Million	6,374.0	6,958.0	8,066.3	8,967.2
	Y-o-Y growth (%)	17.0	9.2	15.9	11.2
Non-Banking Financial Institutions	JD Million	593.2	644.7	730.5	781.1
	Y-o-Y growth (%)	9.8	8.7	13.3	6.9
Total	JD Million	6,967.2	7,602.7	8,796.8	9,748.3
	Y-o-Y growth (%)	16.4	9.1	15.7	10.8

Source: CBJ.

It can be noted from the previous table that household debt with banks (both consumption and housing debt) increased by about JD0.9 billion in 2015 at a rate of 11.2% relative to 2014, compared to about JD1.1 billion at the end of 2014 at a rate of 15.9% relative to 2013. The bulk of the increase was in the personal and housing loans.

As for the details of the household debt with non-bank financial institutions, it increased from JD730.5 million at the end of 2014 to JD781.1 million at the end of 2015, at a growth rate of 6.9% at the end of 2015 compared to 13.3% at the end of 2014. Table 4-2 shows the details of this debt.

Table 4-2. Household Debt at Non-Banking Financial Institutions (2012-2015) (JD Million)

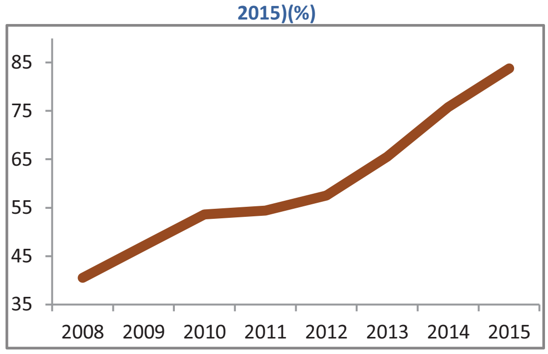
	2012	2013	2014	2015
Microfinance Institutions*	101.8	122.9	158.0	180.0
Companies Listed in ASE**	89.6	99.8	111.8	117.4
Financial Leasing Companies	401.8	421.9	460.7	483.7
Total	593.2	644.7	730.5	781.1

Sources: * Annual Report of the Microfinance Institutions Network (Tanmiya). ** Amman Stock Exchange.

4.1.3 The Ratio of Household Debt-to-Income

Table 4-3 details the developments in the household debt to income ratio over the period (2010-2015). As appears in the table, the ratio witnessed a continuous increase along this period, as it increased from 40.5% at the end of 2008 to 63.2% at the end of 2014. The driver for this increase was the higher growth of household debt (obligations) than the growth in household income. This path is, however, expected in light of the tough conditions that the MENA region is, and still, passing and its repercussions on Jordan (Figure 4-1).

Figure 4-1. The Ratio of Household Debt to Income (2008-2015)(%)



Source: CBJ.

Table 4-3. Household Debt-to-Income Ratio (2010-2015) (JD Millions)*

Year	Household Debt	Household Income	Ratio (%)
2010	5,364.50	10,007.80	53.60
2011	5,987.20	11,008.60	54.39
2012	6,967.30	12,109.50	57.54
2013	7,602.70	11,603.50	65.52
2014	8,796.80	12,763.90	68.92
2015	9,748.30	14,040.30	69.43

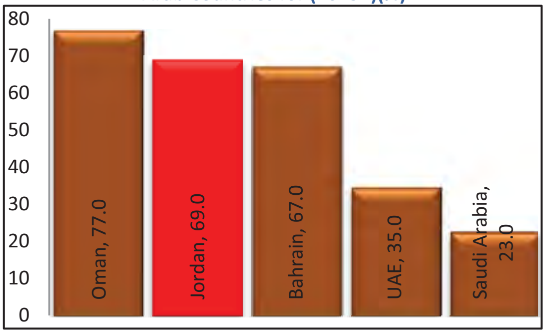
* Unless otherwise indicated. Source: For 2010 and 2013: Department of Statistics. Other years are simple growth estimates.

4.1.4 Household Debt for Selected Arab Countries

For household debt in some selected Arab countries, there is limited information in this regard. However, using available data, the HH debt-to-income ratio was calculated for some Arab countries.

As depicted in Figure 4-2 , the Household debt-to-income ratio in Jordan is one of the highest ratios among some selected Arab countries. It is higher than Bahrain, United Arab Emirates and Saudi Arabia and lower than the Sultanate of Oman.

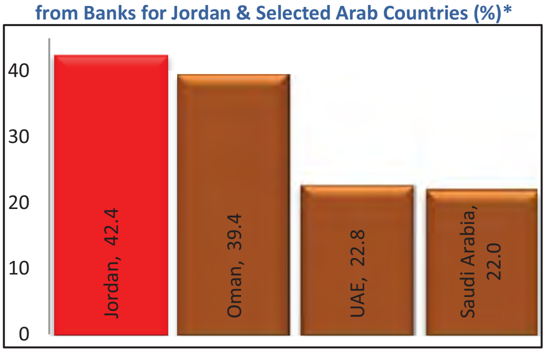
Figure 4-2: Household Debt-to-Income for Jordan and Selected Arab Countries for (2015*)(%)



Ratios are for 2014 except for Jordan.

Regarding the proportion of credit facilities granted to households to total credit facilities granted by the banks in Jordan, the ratio is about 42.4%. Compared with the ratios in a number of Arab countries, this ratio is the highest in Jordan (Figure 4-3).

Figure 4-3: Proportion of Household to Total Credit Facilities from Banks for Jordan & Selected Arab Countries (%)*



* For 2014, except for Jordan, it is more recent for 2015.

4.1.5 Household Sector Indebtedness in Jordan

Household budget on the assets side is made up mainly of deposits, real estate and financial assets. On the liabilities side, the key component of liabilities is household debt. To build the household budget in Jordan, it has been relied on the data available at the CBJ to obtain the data for household deposits in domestic and foreign currency and on the data published by the Securities Depository Center to get the data on the securities held by households. Whereas no information was obtained about the assets of the household real estate, therefore, the information that was available are about the household sector financial assets (deposits, shares and bonds).

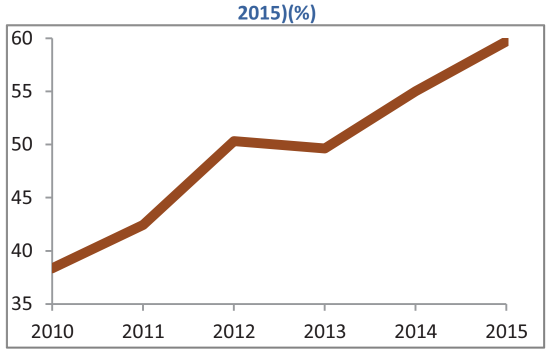
As shown in Table 4-4 and Figure 4-4, household debt-to-wealth followed an upward trend since 2010 - as was the case for the household debt-to-income. However, it declined slightly at the end of 2013 and resumed the upward trend in 2014 and 2015.

Table 4-4. Household Budget and Debt-to-Wealth (2010-2015) (JD Million)*

Year	Assets**	Debt	Net Wealth	Debt-to-Wealth (%)
2010	19,349.0	5,364.5	13,985.0	38.4
2011	20,092.0	5,987.2	14,105.0	42.4
2012	20,810.0	6,967.3	13,843.0	50.3
2013	22,923.0	7,602.7	15,321.0	49.6
2014	24,057.0	8,796.8	15,991.0	55.0
2015	26,041.0	9,719.2	16,321.8	59.5

* Unless otherwise indicated. ** Household assets include deposits, shares and bonds.
Source: CBJ.

Figure 4-4. The Ratio of Household Debt-to-Net Wealth (2010-2015)(%)



Source: CBJ.

4.1.6 Household Debt: Concluding Note

The evolution of the ratios of household debt relative to income and wealth over the last five years reveals that it has witnessed a continuous increase, implying a notable rise in risks of lending to this sector because of the growth in household indebtedness at rates that are higher than the growth in their income. There is no doubt that the tendency of banks to expand the lending to households has several positive outcomes. It might have as well, however, negative impacts on the stability of the financial sector. Therefore, banks must be cautious and aware of the risks that they are exposed to when extending credit to the household sector. Any policy decisions to expand this type of credit must take into consideration the evolution of the relevant risks. The CBJ will continue to monitor the developments in this ratio and take the necessary policy actions and measures accordingly if needed.

4.2 Corporate Sector

4.2.1 Introduction

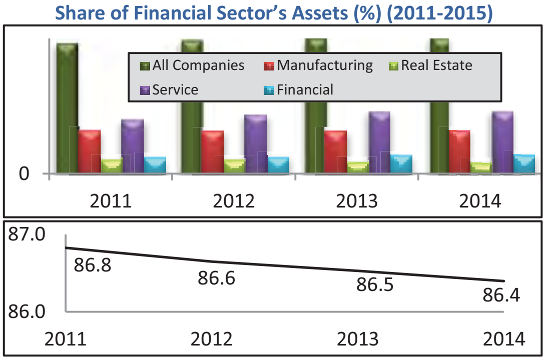
The corporate sector in Jordan consists of non-banking financial companies and non-financial companies.[9] The non-banking financial companies

[9] The analysis is based ONLY on the data about the non-financial companies listed on ASE due to unavailability of data the on non-financial companies that are NOT listed on ASE.

sector consists of the insurance companies, securities companies, microfinance companies, financial leasing companies and other companies that have diversified financial services. The non-financial companies sector is composed of the companies that are listed on ASE and consists of industry, services and real estate sectors. The Ministry of Industry, Trade and Supply is responsible for supervising these companies.

The size of the assets of the non-financial companies in 2014 amounted to JD10,884.4 million, forming 86.4% of the total assets of the corporate sector, compared to JD10,839.5 million at the end of 2013, representing 86.5 % of total corporate assets, while the size of assets of the non-bank financial companies amounted JD1,714.0 million, representing 13.6% of the total corporate sector's assets at the end of 2014, compared to JD1,687.7 million at the end of 2013, representing 13.5% of total assets of the corporate sector (Figure 4-5).

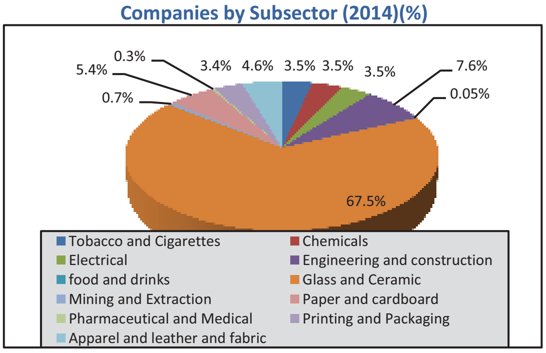
Figure 4-5. Assets of Companies Listed on ASE (JD Billion) and Share of Financial Sector's Assets (%) (2011-2015)



Source: CBJ. Monthly Report.

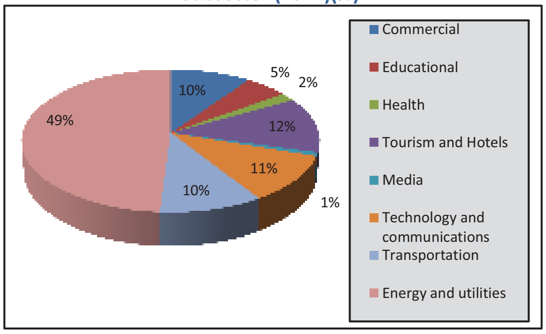
As for the sub-sectors of the non-financial companies, the assets of Mining and Extraction industries formed about 67.5% of the total assets of industrial companies, while service companies, the assets of the energy and utilities accounted for 49.0% of the total assets of the service companies (Figure 4-6).

Figure 4-6. Distribution of Assets of the Manufacturing Companies by Subsector (2014)(%)



Following is an analysis of the developments in the non-financial corporate sector (industrial, service and real estate) that consists of 152 companies per the website of the ASE. As for the financial companies sector, its developments and risks were detailed in Chapter Three (Figure 4-7).

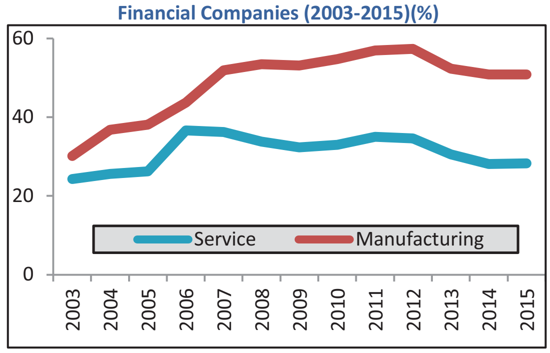
Figure 4-7. Distribution of Assets of the Service Companies by Subsector (2014)(%)



4.2.2 OWNERSHIP STRUCTURE OF THE NON-FINANCIAL COMPANIES

The capital share of foreigners in the total capital of the non-financial manufacturing and service companies approximated 50.8% and 28.3% respectively at the end of 2015, compared to 50.8% and 28.1% respectively at the end of 2014. This notable contribution of foreigners in the capital of these companies reflects the confidence of investors in the Jordanian economy in general. Given that these ownerships are stable contributions (Figure 4-8).

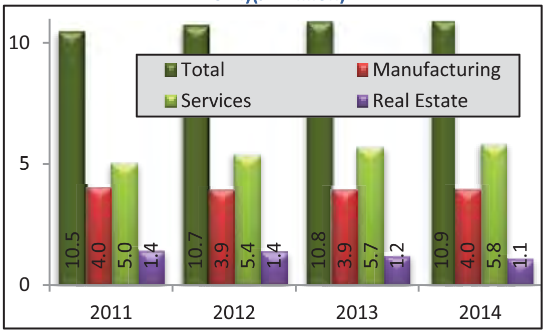
Figure 4-8. Foreigners' Ownership in the Capital of the Non-Financial Companies (2003-2015)(%)



4.2.3 ASSETS OF THE NON-FINANCIAL COMPANIES

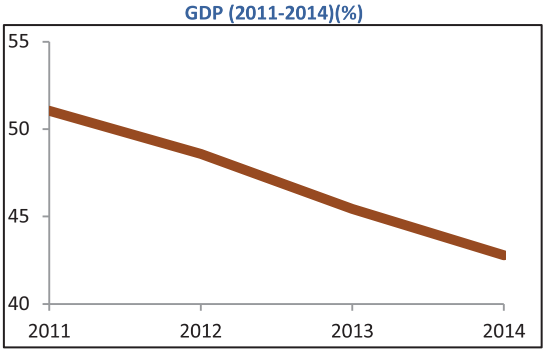
The assets of non-financial companies listed on the ASE amounted to JD10,884.4 million at the end of 2014, compared to JD10,839.5 million at the end of 2013, attaining a slight growth rate of 0.4%. The assets of service companies sector continued their upward trend as the size of the assets of these companies increased to JD5,844.6 million at the end of 2014, compared to JD5,720.0 million at the end of 2013 at a growth rate of 2.2%. On the other hand, the assets of the industrial companies sector amounted to JD3,963.8 million at the end of 2014, compared to JD3,935.2 million at the end of 2013, attaining a growth rate of 0.7%. As for the real estate sector, its assets amounted to JD1,076.0 million at the end of 2014, compared to JD1,184.3 million at the end of 2013 - a decline by 9.1% (Figure 4-9).

Figure 4-9. Assets of the Non-Financial Companies (2011-2014)(JD Billion)



As for the proportion of the non-financial corporate sector's assets to GDP, it has followed a downward trend during the period (2011-2014), which amounted to 42.8% at the end of 2014, compared to 51.1% at the end of 2011, as a result of the growth of the assets of the non-financial companies at a rate that is less than the growth rate of GDP (Figure 4-10).

Figure 4-10. Ratio of Assets of the Non-Financial Companies to GDP (2011-2014)(%)

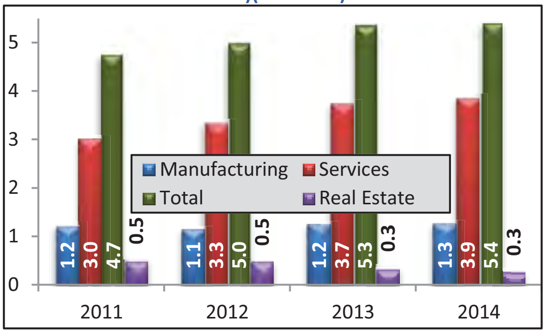


4.2.4 Liabilities of the Non-Financial Companies

With regard to liabilities of the non-financial companies, it reached JD5,393.9 million at the end of 2014, compared to JD5,325.6 million at the end of 2013, a growth rate of 1.3%. The liabilities of the service companies roughed JD3,868.3 million at the end of 2014 compared to JD3,746.5 million at the end of 2013, a growth of 3.3%. While the size of liabilities of the industrial companies reached about JD1,254.1 million at the end of 2014, compared to JD1,232.7 million at the end of 2013, or a growth rate of 1.7%. For the real estate companies sector, its liabilities reached JD271.5 million at the end of 2014 compared to JD346.4 million at the end of 2013, a decline of 21.6% (Figure 4-11).

Consequently, there were no substantial changes to the assets and liabilities of the non-financial companies listed on the ASE except for the real estate companies sector, which realized a decline in the size of its business, which is, however, an expected result of current economic and political situation that had an apparent impact on the sector, especially commercial real estate subsector.

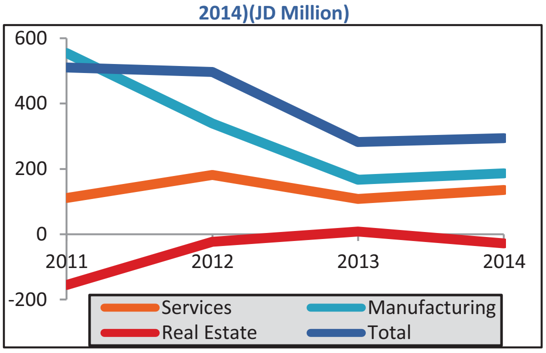
Figure 4-11. Liabilities of the Non-Financial Companies (2011-2014)(JD Billion)



4.2.5 Profitability of the Non-Financial Companies

Net profits of non-financial companies took a downward trend for the period (2011-2013) as a result of the tight economic situation that Jordan experienced, especially during 2012. However, with the improvement in economic conditions in Jordan, the net profit returned to rise at the end of 2014 to reach JD293.9 million at the end of 2014, compared to JD282.0 million at the end of 2013, growing by 4.2%. The net profit of the service companies increased from JD107.8 million at the end of 2013 to JD135.8 million at the end of 2014, an increase by 26.0%. The net profits of the industrial companies also rose from JD166.4 million at the end of 2013 to JD186.1 million at the end of 2014, attaining a growth rate of 11.8%. For real estate companies sector, it has suffered from losses at the end of 2014 that roughed JD28 million, compared to a net profit of about JD7.8 million at the end of 2013. These losses are attributed to the decline in the revenues of these companies from JD227.4 million at the end of 2013 to JD210.1 million at the end of 2014. Moreover, the operating expenses of these companies rose from JD75.9 million at the end of 2013 to JD79.4 million at the end of 201. The other expenses increased significantly from JD1.1 million to JD25.9 million (Figure 4-12).

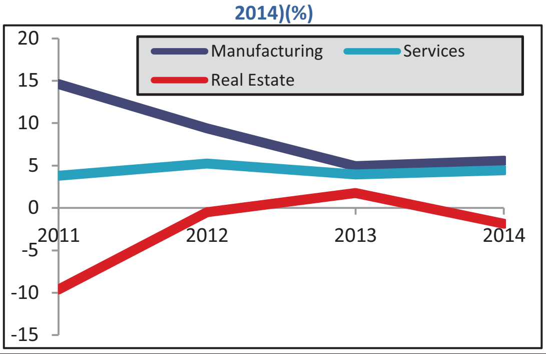
Figure 4-12. Net Profits for the Non-Financial Companies (2011-2014)(JD Million)



As for the ROA, it continued to rise for the industrial companies, and increased to 5.56% at the end of

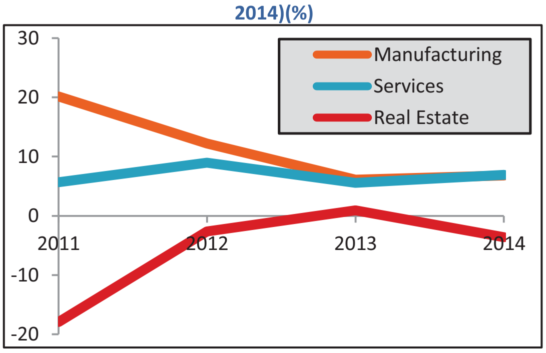
2014 from 4.93% at the end of 2013. For the service companies, it increased from 3.97% at the end of 2013 to 4.46% at the end of 2014. For the real estate companies, the ROA declined substantially from 1.75% at the end of 2013 to about -1.85% at the end of 2014 (Figure 4-13).

Figure 4-13. ROA for the Non-Financial Companies (2011-2014)(%)



For the ROE, it also continued upward trend for the industrial companies and increased to 6.79% at the end of 2014 compared to about 6.11% at the end of 2013. For the service companies, it increased to 6.94% at the end of 2014 from 5.56% at the end of 2013. The ROE for the real estate companies realized a negative value of -3.63% at the end of 2014 compared to 0.93% at the end of 2013 (Figure 4-14).

Figure 4-14. ROE for the Non-Financial Companies (2011-2014)(%)

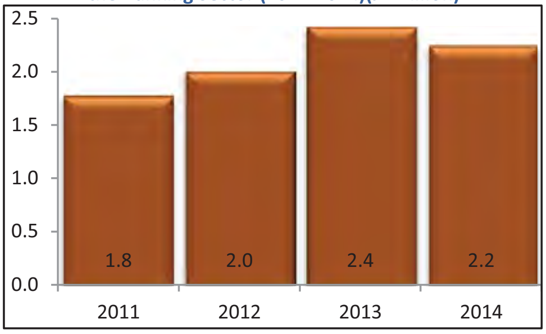


4.2.6 INDEBTEDNESS OF THE NON-FINANCIAL COMPANIES TO THE BANKING SECTOR

The size of credit facilities granted by the banks to the non-financial companies sector listed on the ASE roughed JD2,238.8 million at the end of 2014 compared to JD2,416.5 million at the end of 2013, a decline of 7.3%. This means that banks' exposure to the non-financial companies sector's debt has declined in 2014. The credit facilities granted to real estate companies that are listed on the ASE amounted to JD101.8 million in 2014 compared to JD182.8 million in 2013, a decline of 44.3%.

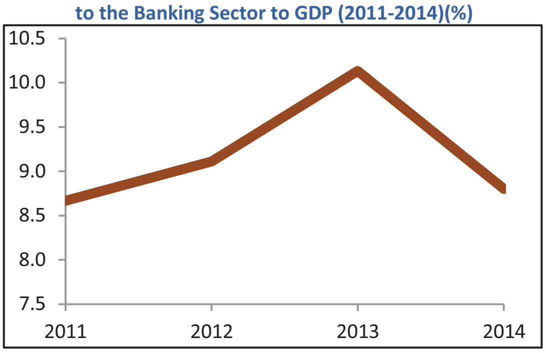
Since the real estate sector witnessed a decline in its profit and size of business in 2014 compared to 2013, the decline in the size of its indebtedness to banks reduces the risk of exposure to this debt (Figure 4-15).

Figure 4-15. Indebtedness of the Non-Financial Companies to the Banking Sector (2011-2014)(JD Billion)



As for the ratio of indebtedness of the non-financial companies with the banking sector to the GDP, it increased to 8.8% at the end of 2014 from 17.0% at the end of 2013 (Figure 4-16).

Figure 4-16. Ratio of Non-Financial Companies Indebtedness to the Banking Sector to GDP (2011-2014)(%)



4.2.7 CONCLUSION

By analyzing the financial conditions for the non-financial companies sector, it is concluded that both service and industrial companies sectors maintained the stability of their financial positions during the period (2011-2014) despite the political and economic turmoil in the region and its consequences on Jordan. The real estate companies sector witnessed an apparent decline in its business size and profitability, which may consequently increase the risk of granting credit facilities to this sector. At the same time, however, the size of its debt declined, which reduces the exposure of banks to this sector. The rise in credit risk of the real estate companies necessitates on the banks to take into account these risks when considering the expansion of lending to this sector.

CHAPTER FIVE

EXPOSURE OF BANKING SYSTEM TO REAL ESTATE MARKET RISKS & THE REAL ESTATE PRICE INDEX

5.1 INTRODUCTION

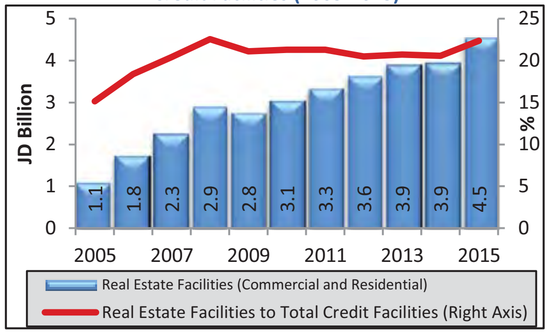
The focus on the real estate sector market risk and its financing increased after the global financial crisis that began by the real estate market bubble in the USA in 2007, as known, and the subsequent repercussions that adversely impacted most world economies, including Jordan.

The real estate market in Jordan observed successive jumps during the last two decades fueled mainly by the economic and political developments in Jordan and the region and the subsequent abnormal growth of population in Jordan caused by the influx of large numbers of refugees from Iraq and Syria.

This chapter sheds the light on the real estate sector in Jordan and the exposure of banks operating in Jordan to the risks of this sector. The chapter also analyzes the evolution of real estate prices in Jordan through exploring real estate price index that has been developed recently in cooperation between the CBJ and the Department of Land and Survey.

Total credit facilities granted to the real estate sector for commercial and residential purposes reached JD4.53 billion at the end of 2015, accounting for 22.4% of the total facilities granted by banks, compared to JD3.94 billion at the end of 2014, at a growth rate of 15.0% compared to 1.0% in 2014. It is worth mentioning in this context that the annual rate of growth during the years 2006-2015 amounted 15.5% (Figure 5-1). The main reason for the substantial rise in real estate facilities at the end of 2015 is the decision of one of the Islamic banks to reclassify Ijarah ending into ownership for real estate as real estate loans after the application of the Banking Supervisory Database. This means that the large increase in real estate credit facilities in 2015 is in part not actual and a result of the reclassification of data. The Ijarah ending into ownership in this bank approximated JD403.0 million. By excluding this item, the total credit facilities granted to the real estate sector for commercial and residential purposes approaches JD4.1 billion, at a growth rate of 4.7% in 2015, compared to 1.0% for the year 2014.

Figure 5-1. Real Estate Credit Facilities and Its Share of Total Credit Facilities (2005-2015)



The comparison of the average annual growth rates of real estate credit facilities and total credit facilities during the years 2007-2015 shows that the average annual growth rate of real estate credit facilities was higher than the average annual growth rates of total credit facilities, the relevant rates were 15.5% and 10.6% respectively (Figure 5-2).

Figure 5-2. Total Credit Facilities Growth Rate Compared to Real Estate Credit Facilities Growth (2007-2015)(%)

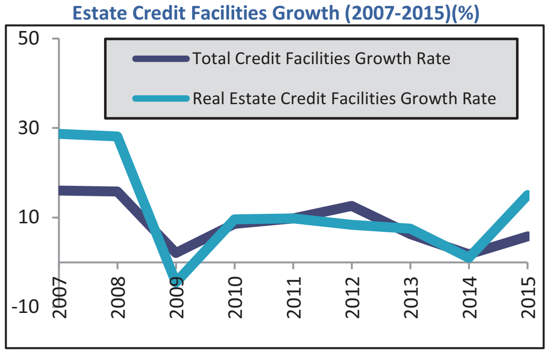
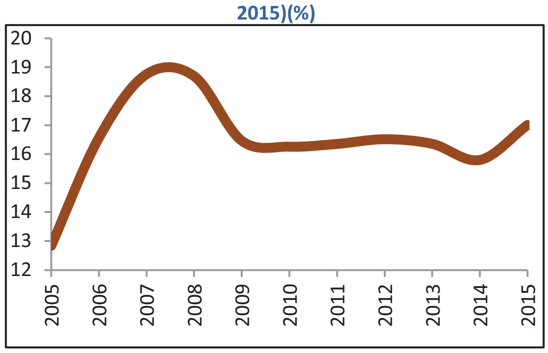


Figure 5-3. The Ratio Real Estate Credit Facilities to GDP (2005-2015)(%)

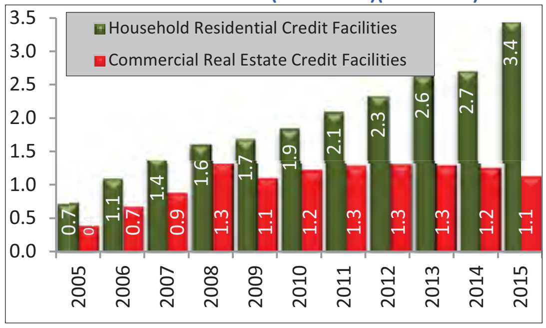


Regarding the ratio of credit facilities extended to the real estate sector to the GDP, Figure 5-3 depicts the evolution of the ratio of credit facilities granted to the real estate sector to GDP during the period (2005-2016). As can be noted from the figure, the ratio of credit facilities granted to the real estate sector to GDP witnessed a remarkable increase during the period (2005-2008). It reached 18.7% at the end of 2008. After that, it dropped to 15.8% at the end of 2014 impacted by the global financial crisis and the situation in the MENA region. However, it resumed its upward trend in 2015 to 17.0%.

5.2 Components of Real Estate Credit

Household housing credit formed 75.5% of total credit extended to real estate sector at the end of 2015, whereas corporate real estate credit formed 24.5% of total credit extended to real estate sector (Figure 5-4).

Figure 5-4. Household Residential and Commercial Real Estate Credit Facilities (2005-2015)(JD Billions)



5.2.1 Household Real Estate Credit

The total housing loans granted to individuals by banks reached JD3,420.0 million at the end of 2015, compared to 0 JD2,698.0 million at the end of 2014; at a growth rate of 26.8%. This high growth rate of household real estate credit is attributed to several factors - besides the previously mentioned reclassification of Ijarah ending into ownership for real estate as real estate loans by one of the Islamic banks. The most notable driver was the product development related to household residential loans, in addition to a set of government measures that have been approved by the cabinet in mid-2015 to stimulate the real estate sector, discussed later in this chapter. The annual report for 2015 issued by Jordan Housing Developers Association indicated that this decision stimulated the real estate sector and several other sectors, especially the construction sector, as it helped the agents possess adequate housing for their household. Moreover, this decision had a positive impact on the demand for residential apartments.

The size of this type of credit was JD744.0 million at the end of 2005; which means that they more than quadrupled during the last ten years. The bulk of this growth was during the period (2006-2008) (the period preceding the global financial crisis) which realized a substantial demand for real estate, especially from non-Jordanians, with an average growth in housing loans during this period of approximately30.0%. After this period, during the period (2009-2010), the growth pace slowed significantly due to the repercussions of the global financial crisis and the accompanying uncertainty and the reluctance of banks in the granting of mortgage loans. The real estate credit resumed its positive growth during the period (2011-2014) after the fading of the impacts of the global financial crisis and the improved market conditions that led to the rise in the demand for real estate. However, this growth did not touch pre-global financial crisis percentages; with an average growth of real estate credit during this period of 17.1% approximately (Figure 5-5 and Figure 5-6).

Figure 5-5. Household Residential Credit Facilities and It's Share of Total Real Estate Credit Facilities (2005-2015)

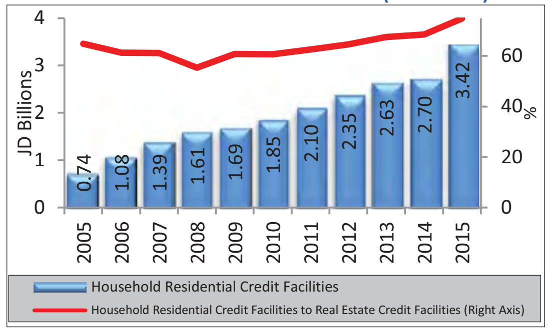
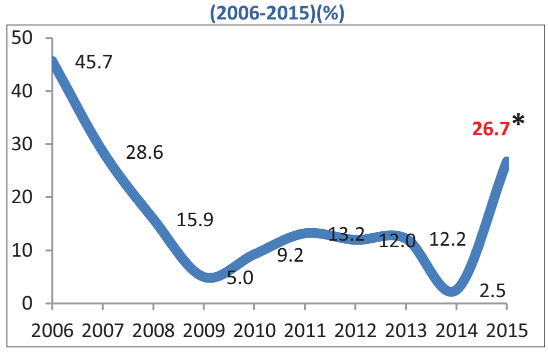


Figure 5-6. Household Residential Credit Facilities Growth Rate (2006-2015)(%)



* The rate for 2015 drops to 11.9% if the reclassification of Ijarah ending into ownership for real estate as real estate loans by one of the Islamic banks is removed.

It should be noted that in the event of neutralizing the impact of the reclassification of Ijarah ending into ownership mentioned previously, the increase in the residential loans for the year 2015 becomes JD322.0 million, or a growth of 11.9%, compared to 2.5% for 2014, which implies that the year 2015 witnessed a remarkable growth in residential loans relative to 2014. However, it is still lower than the growth during the period 2006-2008 and close to the rates that prevailed during the period (2011-2013).

As for the ratio of household housing loans to GDP, it approximated 12.8% at the end of 2015. Compared to selected countries in the world, Jordan was the fifth lowest country amongst them (Figure 5-7).

The main reason behind this low share is that about 69.0% of Jordanians own their living places. Besides; there are alternative sources of credit that the Jordanians utilize. Of these are employee housing loans and loans from institutions; funds and cooperative societies; such as Housing and Urban Development Corporation (Figure 5-8).

Figure 5-7. Residential Real Estate Credit Facilities to GDP for Jordan and Selected Countries for (2015) (%)

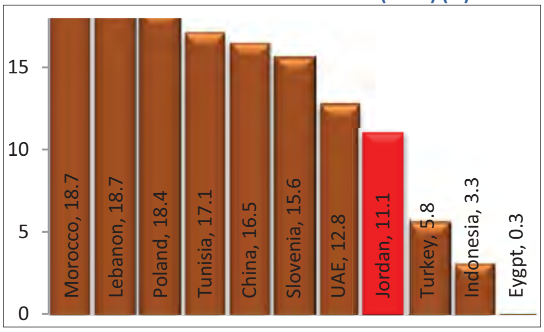
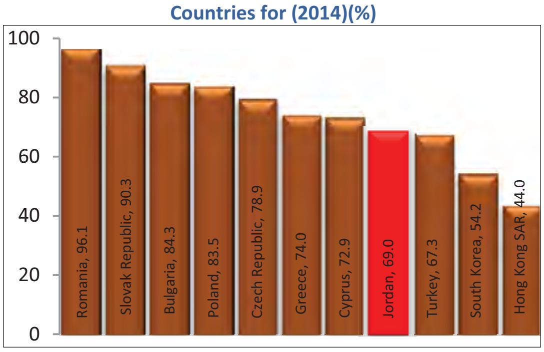


Figure 5-8. Home Ownership Rate in Jordan and Selected Countries for (2014)(%)



5.2.2 COMMERCIAL REAL ESTATE CREDIT

The total corporate real estate credit facilities granted by banks at the end of 2015 reached JD1,111.0 million, forming about 24.5% of the total credit facilities to real estate sector, which is 10.5% lower than the level attained at the end of 2014, which approximated JD1,241.0 million. The period preceding the global financial crisis (2005-2008) witnessed a significant growth in corporate real estate loans, as they rose during this period from about JD400.0 million to JD1,300.0 million, at an average annual growth rate of 49.0%. After that, these loans declined significantly during 2009 to reach about JD1,089.0 million at the end of the year as a result of the significant adverse impact of the global financial crisis on the commercial real estate market. The trend of loans returned to the positive path by attaining positive, but slight, movements during the period (2010-2012). However, they declined again in 2013 and 2014 (Figure 5-9 and Figure 5-10). The global financial crisis and its repercussions, besides the subsequent economic and political conditions in Jordan and the MENA region, had a clear and a substantial impact on the commercial real estate market compared with the residential property sector. This result is expected, however, as the adverse impacts of the economic and political hardship are stronger on the commercial real estate market than the residential property market, especially in light of the abnormal population growth, as with the case in Jordan.

Figure 5-9. Commercial Real Estate Credit Facilities Growth Rate (2006-2015)(%)

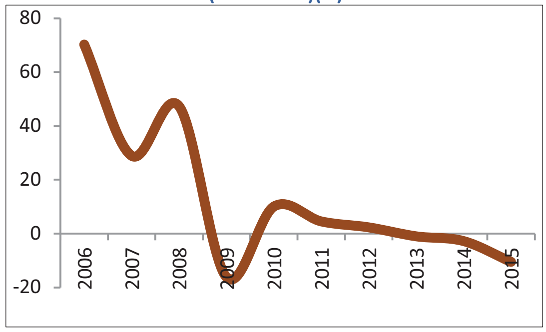
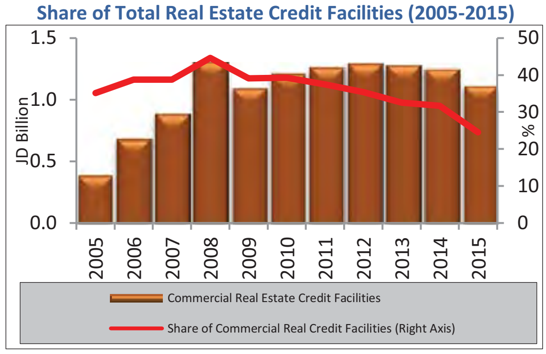


Figure 5-10. Commercial Real Estate Credit Facilities and It's Share of Total Real Estate Credit Facilities (2005-2015)

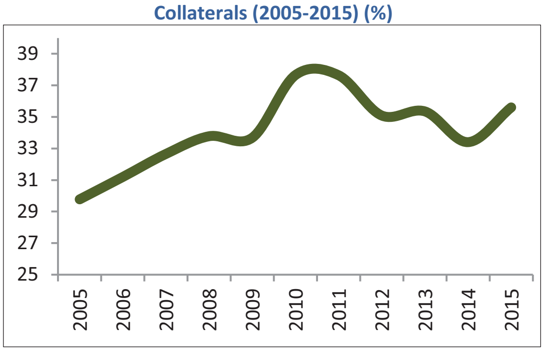


5.3 DIRECT CREDIT FACILITIES GUARANTEED BY REAL ESTATE COLLATERAL

Besides their direct exposure to the real estate market risk through the credit facilities granted to finance the purchase or construction of residential or commercial properties, which (the credit) is usually guaranteed by these properties, there is another real estate market risk that the banks face through the use of real estate as collaterals to guarantee the credit facilities granted by banks for other purposes than real estate. The decrease in real estate prices negatively impacts the value of the collateral and, hence, reduces the ability of banks to recover their money in case of borrowers' default and failure to repay their debt. In this regard, total credit facilities granted by banks against real estate collaterals reached JD2,679.0 million at the end of 2015, compared to JD2,493.0 million at the end of 2014. Adding direct credit facilities guarantees granted against real estate collaterals for other purposes than real estate to the credit facilities granted for residential and commercial real estate purposes, the total direct credit facilities granted against real estate collaterals reached JD7,209.0

million at the end of 2015, composing about 35.6% of total credit facilities compared to 33.4% at the end of 2014. The ratio of total credit facilities granted against real estate collateral decreased from 37.6% at the end of 2010 to 33.4% at the end of 2014. It then increased to 35.6% at the end of 2015 (Figure 5-11).

Figure 5-11. Direct Credit Facilities Guaranteed by Real Estate Collaterals (2005-2015) (%)



5.4 Real Estate Price Index

The value of real estate assets is a core driver of the investment activities in any economy due to their significant inter-linkages with other investment sectors and the implications of the real estate asset price developments on inflation and, hence, monetary and financial stability. The importance of obtaining figures about the movements in real estate prices (real estate price index REPI) made the CBJ and the Department of Land and Survey form a joint team to calculate this index for Jordan at the beginning of 2014 using the best internationally applied methodologies in calculating this indicator and taking into consideration the available data at the Department of Land and Survey. This index has significant and important implications; such as monitoring real estate price bubbles; thus evaluating real estate market risk, forecasting economic growth, estimating the value of houses as a form of wealth and conducting comparisons with international trends.

5.4.1 Real Estate Price Index in Jordan: Analytical Review

Figure 5-12Figure 5-12 through Figure 5-17 illustrate different aspects related to real estate price index in Jordan and the change in the index during the period (2005-2015). As appears from these figures, the REPI in Jordan increased from 115.1 points at the end of 2014 to 119.0 points at the end of 2015 by 3.4% compared to 9.1% in 2014. Which means that the increase in prices of real estate in Jordan in 2015 was substantially slow compared to 2014. This relatively low growth rate is attributed to the price deflation in Jordan and the decrease in the trading volume in the real estate market. The increase in prices was more significant in lands as the lands REPI increased by 4.6% at the end of 2014 compared to 1.7% and 1.2% for the residential and commercial estates respectively.

Figure 5-12. Real Estate (Residential, Commercial and Land) Price Index in Jordan (2005-2015)

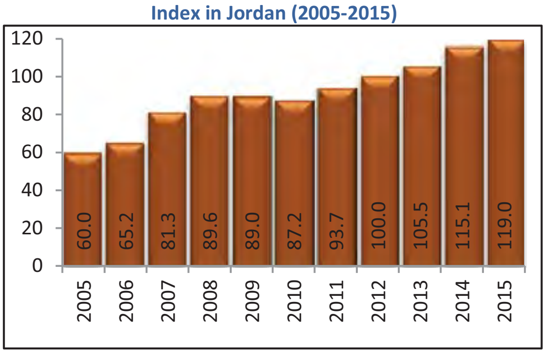


Figure 5-13. Changes in Real Estate (Residential, Commercial and Land) Price Index (2006-2015)(%)

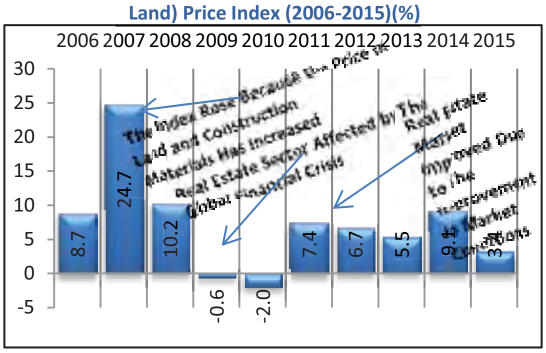


Figure 5-14. Real Estate Price Index (Residential, Commercial and Land) and Real Estate Credit Facilities in Jordan (2005-2014)

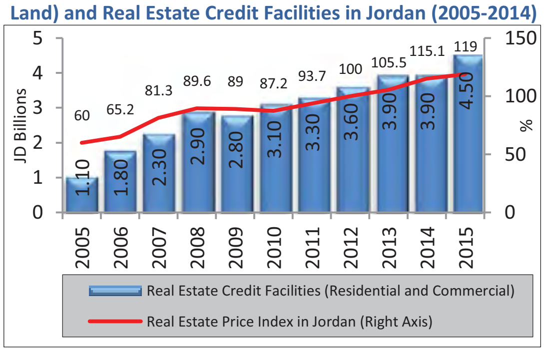


Figure 5-15. Residential Real Estate Price Index and Its Percentage Change (2006-2015)

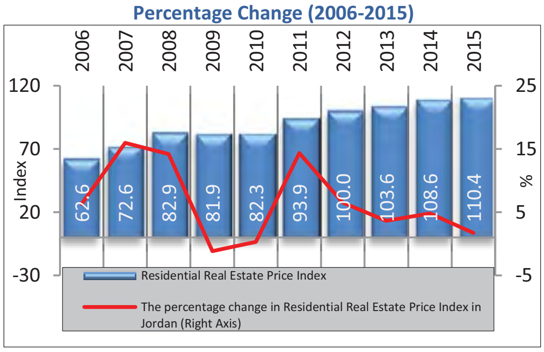


Figure 5-16. Non-residential Real Estate Price Index and Its Percentage Change (2006-2015)

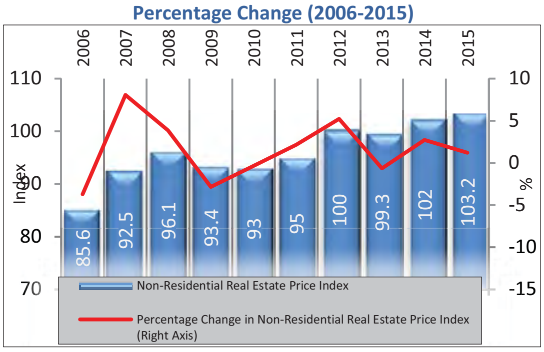
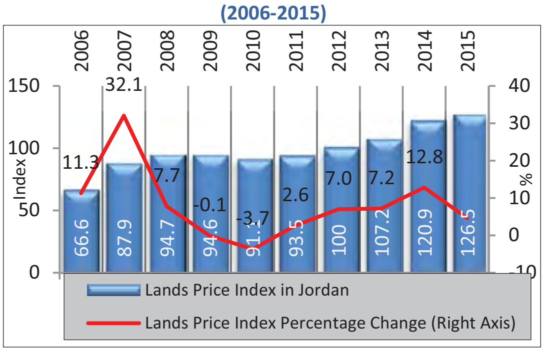


Figure 5-17. Lands Price Index and Its Percentage Change (2006-2015)



In this regard, the index passed different phases that can be summarized in three phases as mentioned in the 2013 and 2014 JFSR:

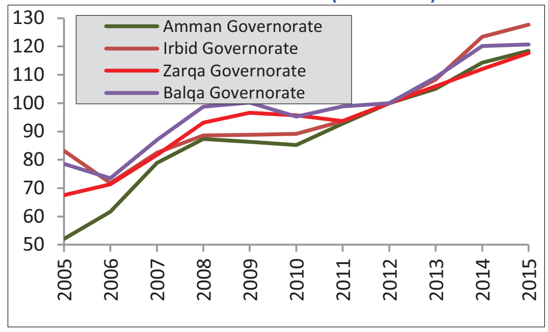
Phase I: Pre-global financial crisis phase (2005-2008). This phase witnessed a significant demand for real estate, especially from non-Jordanians, in addition to the large hikes in the prices of residential and non-residential real estate assets.

Phase II: The repercussions of the global financial crisis phase (2009-2010). In this phase caution and uncertainty dominated and made banks cut down credit. Consequently, the demand for real estate assets declined, and thus their prices went down. To deal with the contraction and activate the real estate market, the government, through its fiscal policy, expanded tax reliefs to include the purchase of apartments and land.

Phase III: The recovery phase (2011-2013). In this phase, real estate investments resumed its upward trend, though at a slower pace than the levels that prevailed in pre-global financial crisis phase. This improvement was due to the improvement in economic activity and market conditions. Consequently, the demand for real estate increased. It is worth mentioning here that the government announcement of its plans to remove the tax exemptions by the end of 2011 raised the index due to the increase in demand for real estate to benefit from these exemptions before the deadline.

Regarding the REPI for Amman, the index witnessed an apparent growth during the years 2005-2015, where REPI was 52.1 points in 2005 and reached 118.5 points in 2014 at a growth rate of 127.4%. Regarding the other governorates, the index witnessed a positive trend as well, but at a slower pace than Amman. For Zarqa, the REPI increased from 67.5 points in 2005 to 117.7 points in 2015 at a growth rate of 74.4%. For Balqa, the REPI increased as well from 78.6 points in 2005 to 120.7 points in 2015 at a growth rate of 53.6%. Finally, for Irbid, the REPI also increased from 83.2 points in 2005 to 126.7 points in 2015 at a growth rate of 52.3% (Figure 5-18).

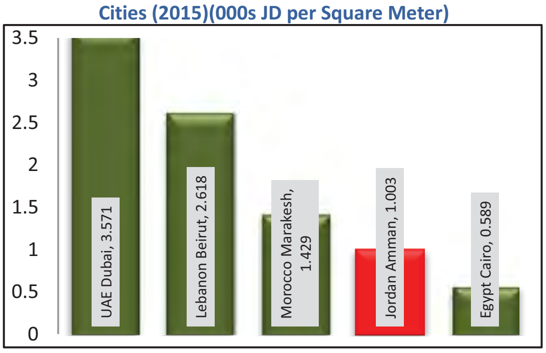
Figure 5-18. Distribution of Real Estate Price Index by the Major Governorates in Jordan (2005-2015)



Concerning average price per square meter in Amman, as per the available information on Western Amman region (the most investment-attracting area), the average real estate price per square meter was JD1,003.0 as at the end of 2015. It is worth mentioning that the price per square meter in several Arab cities like including Marrakesh, Beirut and Dubai is higher than its counterpart in Amman. In this regard, Amman ranked 83rd in the residential real estate price per square meter in 2015; compared to 88th rank in 2014 (Figure 5-19 and Figure 5-20).

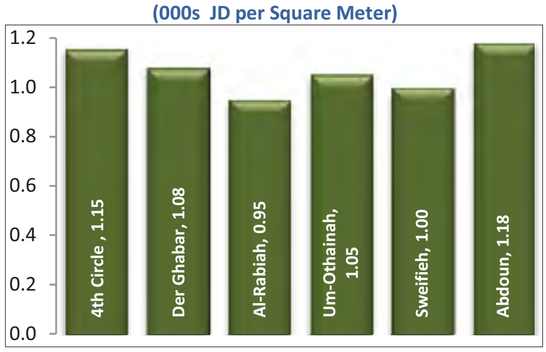
In general, the real estate price index in Jordan increased during 2015 by 3.4% relative to 2014. It also increased in the post-crisis recovery phase (2011-2015) by an average annual growth rate of 7.1% during the period. The growth rate of REPI in Jordan during the recovery period was slightly higher than general inflation rate that amounted 3.1%. This indicates that the rise in the prices of real estates in Jordan, especially during the post-crisis recovery phase, is normal and poses no threat to financial stability.

Figure 5-19. Real estate Prices for Amman and Selected Arab Cities (2015)(000s JD per Square Meter)



Source: http://www.globalpropertyguide.com/.

Figure 5-20. Real estate Prices for Selected Locations in Amman (000s JD per Square Meter)



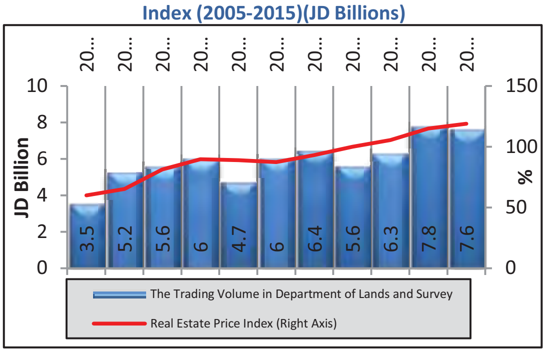
Source: http://www.globalpropertyguide.com/.

Regarding the impact of the influx of Syrian refugees on the real estate prices, particularly in the northern regions in Jordan, the impact on the real estate prices was not realizable. However, rental rates witnessed a notable jump, especially in the northern cities that are close to Syrian borders. In this regard, the president of the Jordan Housing Developers Association (JHDA) stated that the rental rates for the northern region governorates have increased by rates ranging from 100.0% to 120.0%, whereas in Amman, the same rates ranged from 60.0% and 100.0%. In the other governorates, the increase rate range was 25.0%-40.0% - as per some newspapers and websites.

5.4.2 Trading Volume in the Real Estate Market

The report published by the Department of Land and Survey covering the first three months of 2016 stated that the trading volume in the real estate market Increased slightly by 0.03% compared to the same period in 2015 to reach JD1.60 billion approximately. It is worth mentioning that the real estate trading volume in 2015 roughed JD7,607.0 million - a decrease by 2.0% compared to 2014. Figure 5-21 illustrates the historical movements in the real estate trading volume and REPI during the period (2005-2015).

Figure 5-21: Real Estate Trading Volume and Real Estate Price Index (2005-2015)(JD Billions)



Regarding the real estate sales to non-Jordanians, it reached JD80.3 million at the end of first quarter of 2016, composing only 5.0% of total real estate trading volume. Iraqis accounted for the highest share in this market, in which their purchases composed 41.0% of the total sales to non-Jordanians during 2015 (Table 5-1).

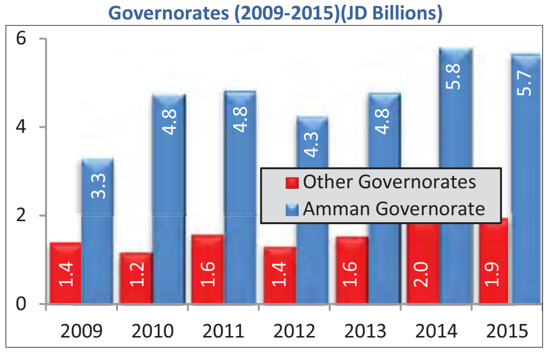
Comparing the trading volumes in 2015 for selected governorates, it is evident that Amman Governorate had the highest trading volume of JD5,661.0 million, composing 74.0% of total trading volume in the real estate market, while it was JD1,946.0 million in the other governorates, composing 26.0% of the total trading volume (Figure 5-22).

Table 5-1. Real Estate Sales to Non-Jordanians (2012-2016) (JD million)

Nationality	2012	2013	2014	2015	2016*
Iraqi	224.7	205.0	266.3	215.1	32.8
Saudi	51.6	58.6	64.1	66.4	16.6
Syrian	17.0	23.7	28.6	17.5	NA
American	13.8	22.0	NA	NA	NA
Emirates	NA	NA	17.4	NA	NA
Kuwaiti	NA	NA	NA	22.9	NA
Yemeni	NA	NA	NA	17.3	5.9
Other	121.9	97.0	115.6	93.0	25.0
Total	429.0	406.5	492.0	432.2	80.3

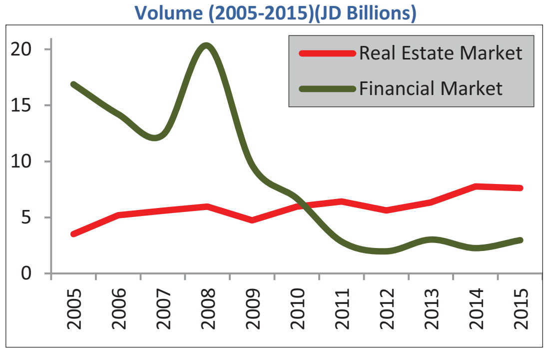
Source: Department of Land and Survey. * First quarter.

Figure 5-22. Real Estate Trading Volume In Amman and Other Governorates (2009-2015)(JD Billions)



By comparing trading volume in real estate market with that in the ASE, it is noted that it was much larger in the financial market than the real estate market during the period (2005-2009) due to the boom that prevailed in the financial market during this period and the associated large inflow of liquidity in the market by Arabs, especially the Iraqis, that led to the increase in the prices in the financial market dramatically, which consequently helped attract more investors, especially citizens, and, hence, boosted the prices faster. However, after the deepening of the repercussions of the global financial crisis and fall in stock prices in the financial market, the trading volumes declined sharply in the financial market and became much lower than its counterpart in the real estate market, as real estate asset is less risky compared to financial assets (Figure 5-23).

Figure 5-23. Real Estate and Amman Stock Exchange Trading Volume (2005-2015)(JD Billions)



Near the end of 2015, the cabinet decided to extend the exemption of apartments and houses from the registration fees until 30-11-2016. By the decision, apartments and houses, with areas not exceeding 150 square meters (sq. m) net of services instead of 120 sq.m are exempt from registration fees. In case the area of the apartment or house exceeded 150.0 sq.m and up to 180.0 sq.m, only the excess of the 150.0 sq.m area is subject to the registration fee. The original cabinet decision goes back to the end of July 2015, when it approved a package of measures to stimulate the real estate sector and resolve the obstacles and difficulties in this vital sector that has suffered for several years from the repercussions of the global financial crisis and instability in the region. Moreover, the cabinet also allowed troubled companies and non-Jordanians to sell before the deadline indicated in the Lease and Selling of Immovable Properties to Non-Jordanians and Legal Persons Law No. 47 for the year 2006 in order to help them complete their other projects. It also decided to exempt the non-Jordanians and legal persons from the fines provided for in Article 13 of the aforesaid law. In addition, the cabinet decided in June of 2016 to cut down the fees for transferring the property by 50.0%.

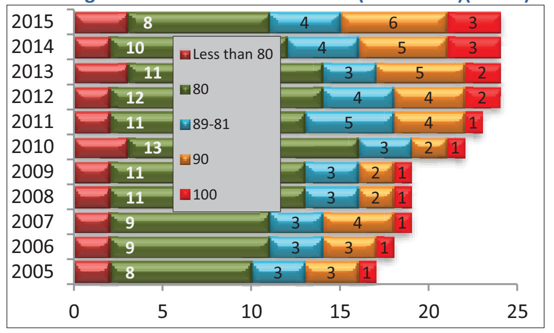
5.5 LOAN-TO-VALUE RATIO LIMITS FOR INDIVIDUAL HOUSING AND COMMERCIAL LOANS IN JORDAN

The ratio of loan to the value of the mortgaged real estate (LTV) is one of the most important ratios and indicators that must be monitored to evaluate the degree of exposure of banks to the real estate market. The relatively high ratio might make the banks exposed to high risk in case the prices of real estate deflated. Because this will deter the banks' ability to get their loan money repaid in case of clients' default in the event the value of the real estate that is used as collateral for the loan drops.

Some countries tend to impose certain limits on LTV ratio in case some indicators signal the possible occurrence of price bubble in the real estate market in order to mitigate the bubble, reduce the probability of bankruptcy when home prices drop significantly, and cut down losses through increasing the value of the required collaterals. These all in turn enhance the banks' ability to confront the associated risk exposure.

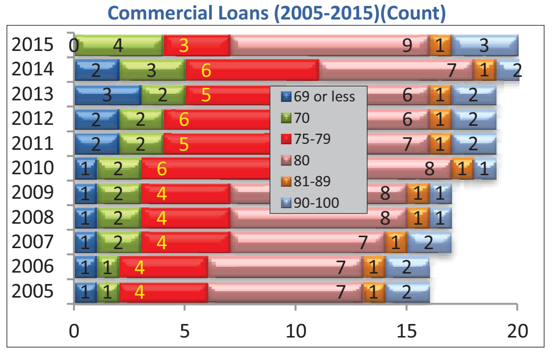
To explore and monitor the LTV ratio in Jordan, the CBJ continuously collects data from banks about the maximum and average values of LTV ratios. Figure 5-24 shows the LTV ratio for housing loans granted to individuals. As appears from the figure, the LTV for 11 banks (composing 46.0% of licensed banks in Jordan) did not exceed 80.0%, whereas it ranged from 81.0% to 89.0% for four banks, roughed 90.0% for six banks and 100.0% for three banks.

Figure 5-24. Distribution of Banks by Maximum LTV Ratio for Housing Loans Granted to Individuals (2005-2015)(Count)



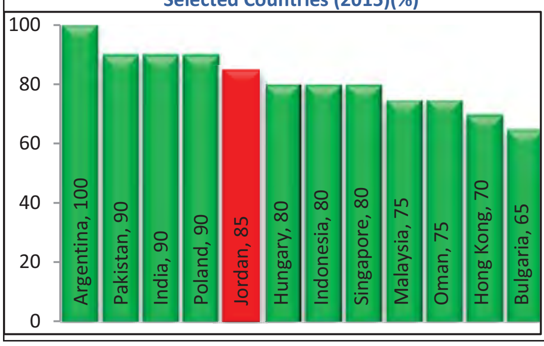
Regarding the maximum LTV ratio for companies, it is lower than its counterpart for the individual in the majority of banks, as 80.0% of banks that extends commercial loans have an LTV ratio not exceeding 80.0% (Figure 5-25).

Figure 5-25. Distribution of banks by Maximum LTV Ratio for Commercial Loans (2005-2015)(Count)



The LTV ratio limit varied amongst selected countries and ranged between 65.0% and 100.0%. In the banks in Jordan, this limit averaged 85.0% as most of the Jordanian banks' LTV ratio ranged between 80.0% and 90.0% (Figure 5-26).

Figure 5-26. Maximum LTV Ratio for Real Estate Loans for Selected Countries (2015)(%)



5.6 ACTUAL LTV RATIO'S AVERAGE FOR INDIVIDUAL AND COMMERCIAL LOANS IN JORDAN

Despite the high LTV ratio limit for individual housing loans in some banks relatively, the actual average LTV ratio is lower than the maximum limit. The actual weighted average of LTV ratio was 73.2% at the end of 2014 and declined to 66.3% at the end of 2015.

As for the actual average of the LTV ratio for the commercial real estate loans, it was close to its counterpart for the individual housing loans and amounted 68.6% at the end of 2015 (Figure 5-27).

Figure 5-27. Housing Loans and Actual Weighted Average of LTV Ratio for Housing Loans Granted to Individuals (2005-2015)

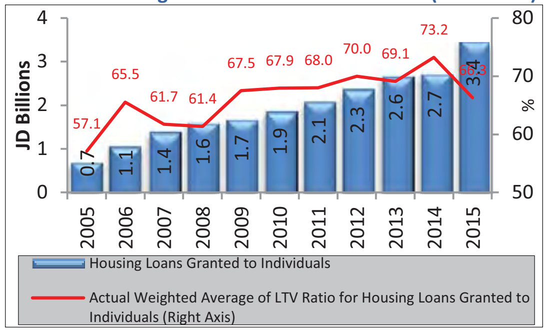
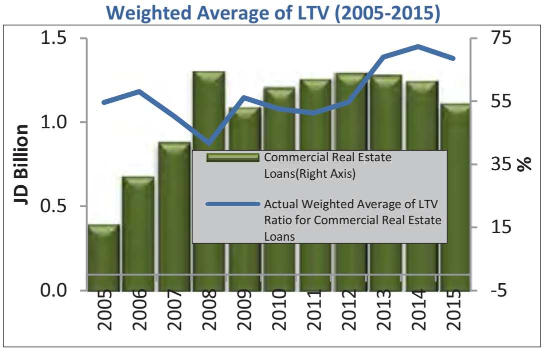


Figure 5-28. Commercial Real Estate Loans and their Actual Weighted Average of LTV (2005-2015)



5.7 CBJ Measures to Mitigate Banking Sector's Exposure to Real Estate Market and Enhance their Capacity to Confront them

As mentioned in the previous JFSRs, the CBJ decided some limits aiming at mitigating the exposure of the banking system to real estate market risk and sustain the banks' ability to deal with this risk in case it materialized. These measures include the following:

- A cap on real estate loans. Credit Concentration Instructions No.9/2001 dated 01-08-2011 sets a cap on the total direct credit extended for constructing or buying homes. The loan must not exceed 20.0% of total clients' deposits in JD.
- A cap on loan-to-value ratio. Capital Adequacy Instructions No. 39/2008 dated 24-03-2008(in compliance with Basel II guidelines) set the risk weighting for housing loans with LTV ratios not exceeding 80.0% to be 35.0%. The risk weighting increases to 100.0% in case LTV ratio exceeded 80.0%. In other words, for any loan, if the LTV ratio exceeds 80.0%, then these loans entail higher capital levels. This consequently enhances the banks' ability to confront these risks and, hence, sustain the stability of the banking and, hence, financial system in Jordan.

5.8 Conclusion

The credit facilities extended for, or guaranteed by, real estate composed more that 35.6% of total credit facilities extended by banks. Even though this share is considered relatively high, the assessed value of the mortgaged property exceeds with a comfortable margin the granted credit, as the real estate collaterals cover about 151.0% of total credit extended for real estate purposes. Inevitably, this enhances the banks' capacity to confront credit risks. On another strand, the evolution of REPI in Jordan moved in line with the CPI path, in this regard, the increase in real estate prices in Jordan in 2015 was small and goes in line with the CPI deflation. However, given the high household debt-to-income ratio, banks need to be cautious and thoroughly monitor the evolution of these risks when deciding to expand loans extended to the household sector in particular and real estate sector in general.

CHAPTER SIX

STRESS TESTING

6.1 INTRODUCTION

Stress testing is an important tool used by the regulatory authorities and banks to measure the ability of banks to withstand the shocks and high risks that they might encounter. Stress tests are designed to assess the financial situation of the bank within the severe scenarios but possible occurrence. The results are used to determine the capital and liquidity levels that the banks are required to maintain to be able to withstand shocks and high risks.

Stress tests are forward looking in risk assessment using procedures that exceed statistical methods based on historical information. They help senior management understand the circumstances of the bank in times of crisis. Stress tests are an essential part of risk management and capital planning and liquidity levels. However, they cannot cover alone all the weaknesses in the bank. They instead work in within an integrated risk management policy to enhance the safety and soundness of banks and strengthen the financial system as a whole.

Stress testing topic witnessed significant developments since the global financial crisis. In this regard, Basel Committee on Banking Supervision (BCBS) released in 2009 the main principles of stress testing and the follow-up of their implementation. The BCBS released another paper in 2012 on monitoring the implementation of these principles by the regulatory authorities. In light with these developments, the CBJ released a draft new **Bottom-up Stress Testing Instructions** in June 2016 that are updated with the most important developments in stress testing tool in compliance with the international best practices.

6.2 STRESS TESTING OF THE BANKING SECTOR

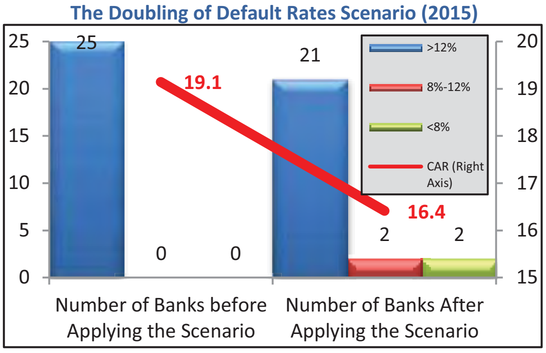
Sensitivity analysis tests are used in general to measure the impact of movements in risk factors - individually - on the financial position of the bank. Examples are high non-performing loans ratio, changes in interest rates, changes in exchange rates and changes in stock prices. Usually, the source of the shock (i.e., the source that leads to this kind of risk) is not determined in these tests. Following are some of the sensitivity tests that have been conducted on a number of risk factors by the banks operating in Jordan.

6.2.1 SENSITIVITY ANALYSIS

6.2.1.1 CREDIT RISK

This scenario assumed an increase in non-performing loans (default rate at banks) by 50.0% due to the worsening of political conditions in the region and its consequent impact on economic conditions and banks in Jordan. In this case, the CAR in the banking system will drop from approximately 19.1% to 16.4%. This implies that the banking system is in general able to withstand a shock of such a type as the CAR after the shock remains well above the minimum required CAR in Jordan of 12.0% by a comfortable margin. The reason behind this limited impact of such a shock is the high capital adequacy ratios at banks that are the highest in the region, besides, the high profits which helped enhance their capacity to increase provisions and absorb the additional losses that might take effect in case the shock materialized without impacting banks' capital level that in turn protect banks' capital. At the individual bank level, CAR was above 12.0% in 21 out of 25 banks, between 8.0% and 12.0% in two banks and below 8.0% in another two banks. This implies that banks, individually and collectively are able to withstand this shock (Figure 6-1).

Figure 6-1. Capital Adequacy Ratio Before and After Applying The Doubling of Default Rates Scenario (2015)

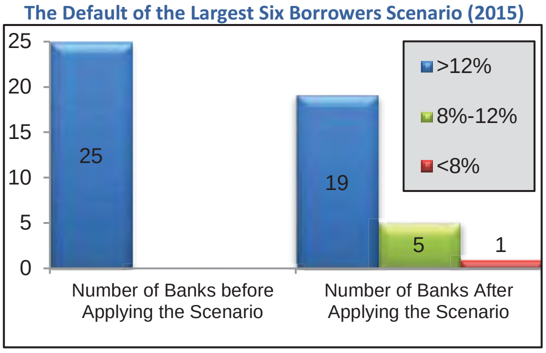


6.2.1.2 CREDIT CONCENTRATION RISKS

Regarding the credit concentration risks; and assuming the default of the largest three borrowers at individual bank level. In this case, the CAR in the banking system will be above the minimum limit applied in Jordan, of 12.0%, for 24 banks. It will drop below 12.0% in one bank only and becomes 11.7%.

In the case of the default of the largest six borrowers at individual bank level, the CAR in the banking system will be above the minimum limit applied in Jordan for 19 banks. It will drop below 12.0% in six banks only, where it will be above the minimum international number of 8.0% for five of these six banks. This implies that most of banks in Jordan are capable of withstanding credit concentration risks. Even though, some banks need to mitigate their concentration risks. In this regard, the CBJ closely monitors the developments in the concentration risks though Credit Concentration Instructions (Figure 6-2).

Figure 6-2. Capital Adequacy Ratio Before and After Applying The Default of the Largest Six Borrowers Scenario (2015)



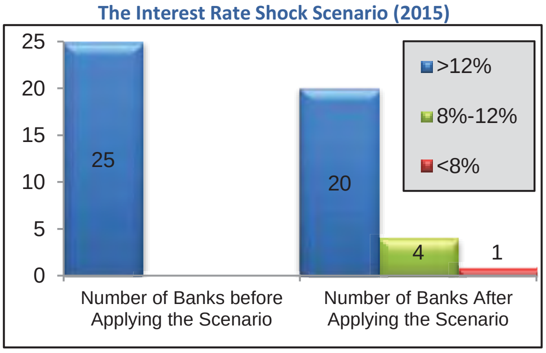
6.2.2 MARKET RISK

A set of sensitivity tests were conducted to investigate the impact of market risk on CAR. The analysis composed three shocks. Namely, interest rates, exchange rates and equity price. These three variables are the most commonly used ones in this regard.

6.2.2.1 INTEREST RATE SHOCK

Assuming that interest rates increase by 100 basis points, the CAR at the banking system in Jordan will drop from 19.1% to 14.8%. At the individual bank level, CAR was above 12.0% in 20 out of 25 banks, between 8.0% and 12.0% in four banks and below 8.0% in one bank. This implies most of banks in Jordan are able to withstand interest rate shock (Figure 6-3).

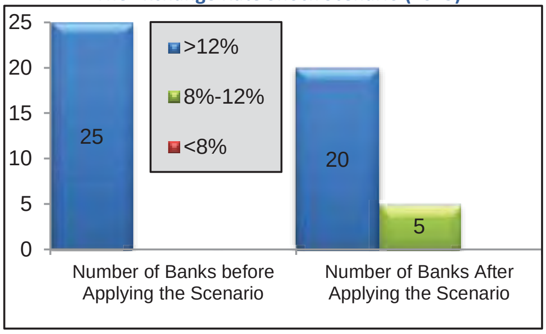
Figure 6-3. Capital Adequacy Ratio Before and After Applying The Interest Rate Shock Scenario (2015)



6.2.2.2 EXCHANGE RATE SHOCK

Under the scenario where the exchange rate of the JD against foreign currencies depreciates by 20.0%[10], the CAR at the banking system in Jordan drops from 19.1% to 16.3%.[11] This implies that the banking system as a whole is capable of withstanding this shock since its ex-post CAR is still above the minimum limit applied in Jordan of 12.0% by a comfortable margin. At the individual bank level, CAR was above 12.0% in 20 out of 25 banks and between 8.0% and 12.0% in five banks (Figure 6-4).

Figure 6-4. Capital Adequacy Ratio Before and After Applying The Exchange Rate Shock Scenario (2015)



6.2.2.3 EQUITY PRICE SHOCK

Under this scenario, the equity prices drop by 25.0%. In this case, the CAR at the banking system in Jordan drops from 19.1% to 18.8%. This implies that there is no material effect of this shock on the banking system as a whole as CAR is still above the minimum limit applied in Jordan of 12.0% by a comfortable margin. At the individual bank level, CAR was above 12.0% in all banks. This implies that banks in Jordan are capable of withstanding the equity price shock due to the relatively low exposure of banks to the financial market in Jordan.

6.3 MACRO-STRESS TESTING

The credit risk is one of the most important risks that the banks face and that have very big impact on their solvency. In order to estimate the impact on non-performing loans for the period (2016-2018), the so-called Satellite Model has been employed.

In this regard, a number of scenarios were assumed. The macro stressed scenarios represents medium and severe hypothetical shocks designed to assess the ability of banks to withstand risks. The main assumption is the exacerbation of surrounding geopolitical situation in the MENA region, and the continuous decline in oil prices. Apparently, these developments will adversely impact the financial situation in the Gulf region, and will, in turn impact Jordan via three main channels: a decline in the remittances of Jordanians working in the Gulf, a decline in grants and aid to Jordan from the Gulf countries, and a decline of capital inflow from tourism and direct investment. In turn, this will lead to economic slowdown and decrease in economic growth rates, increase in unemployment rates and the contraction of the financial market. If it is further assumed that the interest rate on the US dollar increases faster than expected in the line with the economic boom in USA and a consequent decision by the CBJ to raise the interest rate on the Jordanian

[10] This is a hypothetical scenario that aims at investigating the exposure of banks to foreign exchange risk. Empirically, however, the foreign reserves level at the CBJ roughed JD12.9 billion at the end of May 2016. This level is sufficient to cover more than seven months of imports. It also signifies the high stability of the exchange rate of the JD.

[11] This analysis does not take into consideration the indirect impact of the JD depreciation on the economy and, hence, on the non-performing loans.

Dinar to maintain the attractiveness of the JD as a saving currency, the economic growth in Jordan will deteriorate further.

To measure the impact of these hypothetical scenarios on banks, the GDP growth rate is one of the main macroeconomic variables that affect the non-performing loans, and, hence, the capital adequacy ratios for the regulatory and Tier one capital at banks.[12] Economic literature inserts that the decline in the economic growth rate leads to increase in the non-performing loans as a result of the economic slowdown, which further decrease the borrowers' ability to pay back their loans. In addition, equity prices and interest rates were used to estimate the NPLs. To estimate the NPLs, the methodology of conducting stress testing using Satellite Model assumes three levels of shocks to calculate the value of the dependent variable (NPLs) and consequently its impact on the CAR for the succeeding year. In terms of severity, these scenarios are:

- Baseline Macro Stress Scenario
- Medium Macro Stress Scenario
- Severe Macro Stress Scenario

And the following multiple regression model was used:

$$\mathbf{NPL_t = C + B_1\, NPL_{(t-1)} + B_2\, \Delta GDP_{(t-1)} + B_3 \Delta SPI_t + B_4\, RIR_t}$$

Where:

NPL_t: Expected non-performing loans ratio for 2016.
C: Constant
NPL_{t-1}: Previous year's non-performing loans ratio.
GDP_t: Growth rate of gross domestic product.
RIR_t: Interest rate.
SPI_t: Share price index.

Based on the econometric analysis of the multiple-regression model, there was a significant negative impact of GDP and SPI on NPL and significant positive impact of IR on NPL as shown in the following estimated model:

$$\mathbf{NPL_t = 4.01 + 1.0\, NPL_{(t-1)}\ 2.51 \Delta GDP_{(t-1)} - 0.19 \Delta SPI_t + 0.51 RIR_t}$$

Table 6-1. Multiple Regression Analysis - Satellite Model

Variable	Coefficient	t-statistic
C	+4.01	4.96
NPL(-1)	+1.00*	1.91
ΔGDP(-1)	-2.51*	-4.96
ΔSPI	-0.19*	-12.26
RIR	0.51*	2.39
R^2	84.0%	

*: Statistically significant at 95% confidence.

6.3.1 MODEL ASSUMPTIONS

This is the first time CBJ develops multiple-period stress testing. With this, it is possible to forecast the NPLs and their impact on CAR the banks for several future years instead of a single year. To estimate the NPLs for period (2016-2018) based on the assumed changes in the GDP growth, interest rates and equity prices. The scenarios shown in Table 6-1 were assumed.

Table 6-2. Macro Stress Testing Scenarios – Satellite Model

Year	Scenario	GDP	SPI	RIR
2016	Baseline Scenario	2.8	4,004.2	9.41
	Medium Macro Stress Scenario	2.0	3,603.8	10.41
	Severe Macro Stress Scenario	0.4	3,203.4	10.91
2017	Baseline Scenario	3.7	3,203.4	10.91
	Medium Macro Stress Scenario	2.6	2,883.0	11.91
	Severe Macro Stress Scenario	1.9	2,306.4	12.41
2018	Baseline Scenario	4.0	2,306.4	12.41
	Medium Macro Stress Scenario	3.4	2,075.8	13.41
	Severe Macro Stress Scenario	2.5	1,845.1	13.91

The shock scenarios were assumed based on the following:

- Medium Macro Stress Scenario: The GDP growth rate in 2014 minus the median of the deviations from its average for the study period.
- Severe Macro Stress Scenario: The GDP growth rate in 2014 minus the biggest deviation from its average for the study period.

For equity prices and interest rates, the equity were assumed to decline by 10.0% and 20.0% and the interest rates were assumed to increase by 100 and 150 basis points for the medium and severe scenario respectively. These values were set based on the assumptions included in the CBJ's Stress Testing Instructions and Basel Committee Guidelines.

6.3.2 EMPIRICAL RESULTS

Table 6-3 and Figure 6-5 show the estimated change in the NPL ratio for the year 2016 assuming the occurrence of the mentioned scenarios. In this regard, the NPL ratio are expected to increase from 4.9% in 2015 to 13.0% in 2016 under the severe macro stress scenario, therefore CAR consequently drops from 19.1% in 2015 to 17.0% in 2016.

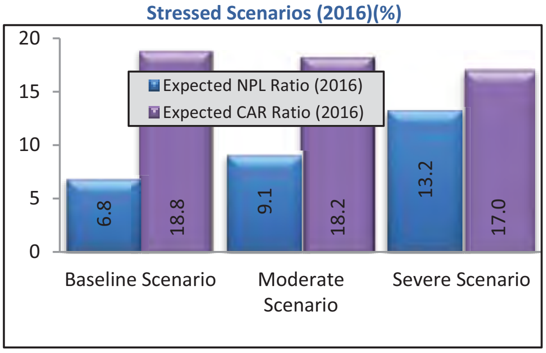
Table 6-3. Macro Stress Testing Results for 2016 – Satellite Model (%)

Scenarios	NPLs (2016)*	CAR (2016)*
Baseline Scenario	6.5	18.8
Medium Macro Stress Scenario	8.9	18.2
Severe Macro Stress Scenario	13.0	17.0

* The values of NPL and CAR are 5.6% and 18.4% respectively.

Assuming the scenarios shown in Table 6-2, the estimated NPLs for year 2016, 2017 and 2018 are as shown in (Figure 6-6).

Figure 6-5. CAR and NPL Ratio After the Application of the Stressed Scenarios (2016)(%)



Therefore, the CAR for the years based on the medium scenario decreases to 15.9% in 2018, and will be above 12.0% for the three years by a comfortable margin. This means that the banking sector is capable of withstanding this shock (Figure 6-7).

[12] Per Basel III.

Figure 6-6. NPL Ratio After the Application of the Scenarios in Table (6-2)(%)

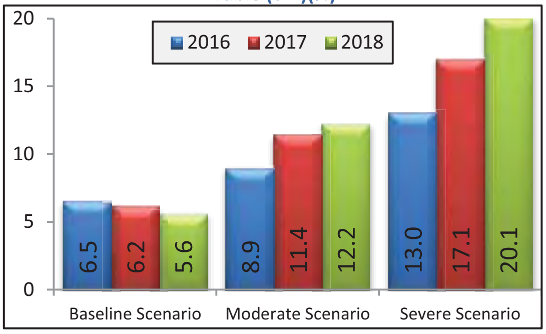
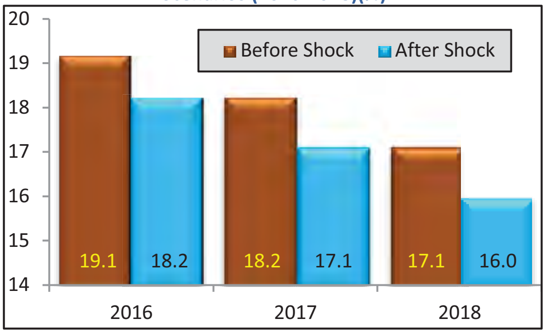
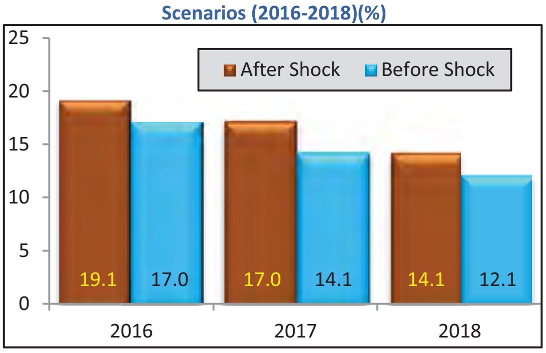


Figure 6-7. CAR Ratio After the Application of the Moderate Scenarios (2016-2018)(%)



For the severe scenario, CAR decreases to 12.1% in 2018, and will be above 12.0% for the three years. This implies that the banking sector has satisfactory CARs and is capable of withstanding this shock (Figure 6-8).

Figure 6-8. CAR Ratio After the Application of the Severe Scenarios (2016-2018)(%)



6.4 Conclusion

Based on the results of various stress tests conducted in this chapter for the years (2016-2018), the banking system is generally capable of withstanding shocks and high risks that lead to an increase in non-performing loans as a result of the unfavorable changes in the economic conditions, and the continued exacerbation of these conditions until the year 2018. as the capital adequacy ratio for the years 2016, 2017 and 2018 are expected to be 17.0%, 14.1% and 12.1% respectively assuming the occurrence of the severe case scenario. These favorable results are due the high capital adequacy ratios at banks that are the highest in the MENA region, besides the high profits that help enhance their capacity to increase provisions and absorb the additional losses that might take effect in case the shock materialized without them impacting banks' capital level that in turn protect banks' capital. In this regard, the CBJ will keep on improving these stress tests qualitatively and quantitatively considering the evolution of risks on domestic, regional and international levels to ensure the soundness and resilience of the banking system in Jordan.

Chapter Seven

Special Topics

7.1 The Impact of the Application of Basel III Standards on the Banking System in Jordan

7.1.1 Introduction

Capital is an important tool to enhance banks' ability to withstand financial shocks and high risks, and thereby protect depositors' money. The interest in financial solvency by banks and regulatory authorities is due to their vital importance. Solvency is measured by capital adequacy ratio which reflects the ability of capital to withstand shocks and high risk and absorb losses. This in turn positively impacts the safety and durability of financial positions of banks. The global financial crisis revealed that some banks in the world did not have enough stock of high-quality capital and liquidity to confront risks. Besides, the excessive debt on and off balance sheet resulted in a gradual depletion of the levels and the quality of capital and a doubling of credit losses as a result of concentration in investments .

Consequently, the Basel Committee on Banking Supervision conducted a set of amendments on Basel II through the issuance of new guidance with respect to capital and liquidity (Basel III) at the end of 2010, in a goal to strengthen the capital base of banks qualitatively and quantitatively, enhance liquidity levels, and, consequently, enhances their ability to cope with risks.

7.1.2 The most Important Characteristics of Basel III

Despite the compliance of banks in the world with the minimum capital requirements as set in Basel II, some banks faced a rapid erosion of their capital because of losses they suffered due to low quality and quantity of their capital. The most important amendments can be summarized under Basel III, including the following:

1. Enhancing and improving the quality and quantity of capital for banks through maintaining high-quality capital that has a high capacity to confront risks and absorb losses. The standard emphasized redefining capital and focusing on the part of it that is characterized by high quality, named Common Equity Tier1 Capital (CET1). Based on Basel III, the regulatory capital is composed of:

- Tier 1 Capital. It includes common equity capital (CET1) and additional Tier 1.
- Tier 2 Capital. It is called supplemental capital and is lower in quality than Tier 1 capital.

2. Imposing additional margins on the minimum capital adequacy ratios to enhance the banks' ability to confront risks that it might be subjected to, including financial cycle and financial system risks.
3. Amending the treatment of banks' investments in the capital of banks, financial institutions and insurance companies as follows:

- Deducting the interbank investments in case they were mutual.
- Special treatment for the investments in the capital of banks, financial institutions and insurance companies that are lower than 10.0%.
- Special treatment for the investments in the capital of banks, financial institutions and insurance companies that are higher than 10.0%.

4. Using standard ratios to monitor banks' liquidity to assure maintaining sufficient levels of liquidity to meet their obligations and continue in business. Examples are liquidity coverage ratio (LCR) and net stable funding ratio (NSFR).

The CBJ considers there requirements as an additional tool to enhance risk management in banks, especially regarding liquidity.

7.1.3 Mandating Basel III Requirements on the Banks in Jordan

In order to implement Basel III requirements, the CBJ has prepared a draft of instructions for the implementation of Basel III capital requirements and sent them to banks on 29-12-2015. In these instructions, the banks were requested to provide the CBJ with their comments and feedback on these instructions. The CBJ also conducted a study on the quantitative impact of the implementation of Basel III requirements on banks.

7.1.3.1 The Implementation of Basel III Capital Requirements Instructions

The most important points in the draft instructions are:

1- Regulatory capital components:

- The minimum common equity capital (CET1) is 6.0% of risk-weighted assets (RWAs).
- The maximum additional Tier 1 capital (AT1) is 1.5% of RWAs.
- The maximum Tier 2 (supplemental) capital (Tier2) is 2.0% of RWAs.
- A mandatory capital conservation buffer, equivalent to 2.5% of RWAs.
- Therefore, the minimum capital adequacy ratio will maintain its current level of 12.0%. It must, however, increase to 14.0% for banks that have presence outside Jordan.

2- Specifying the methodology for calculating the countercyclical capital buffer.

3- Specifying the methodology for calculating the capital buffer for the domestically-important systemic banks (DSIBs).

4- Enhancing the current methodology of calculating capital levels required to face operational risks by including the Standardized Approach

5- Including a section for the calculation of leverage ratio (LR) as required by Basel III.

6- Recalculating the minority interest in the regulatory capital. In this regard, the bank's share in the excess regulatory capital of the affiliates must be identified.

7.1.3.2 The Quantitative Impact of the Implementation of Basel III Requirements on Banks

Based on input from banks, the CAR based on Basel III requirements increased relative to levels that prevailed during the implementation of Basel II requirements (Table 7-1).

Table 7-1. Capital Adequacy Ratios at Jordanian Banks on Consolidated and Branch Levels (%)			
Consolidated Level		Branch Level	
II Basel	III Basel	II Basel	III Basel
16.60	18.10	19.07	20.80

Regarding the CAR on the individual bank level, it kept its level for seven banks, increased for 14 banks and decreased for four banks (Table 7-2).

Table 7-2. Distribution of Banks: Results of the Quantitative Impact of the Implementation of Basel III Capital Requirements		
Increase in CAR (pp)	Number of Banks	
	Consolidated Level	Stand-Alone
0	7	7
>0 and ≤0.5	7	6
>0.5 and ≤1.0	5	3
>1.0	2	5

The high capital adequacy ratios for most of the banks in Jordan are attributed to the different methods of processing investments in other banks, financial institutions and insurance companies. Based on the instructions of the Basel II, the majority of investments in the capitals of banks, financial institutions and insurance companies were traditionally deducted from the regulatory capital regardless of (their share in the capital of these companies) whether they are lower or higher than 10.0% of the capital of these companies. Differently, according to the Basel III, there are limits to the deductions from regulatory capital, with only investments that are above 10.0% of CET1 for the investing bank, whereas other investments are included in the risk-weighted assets.

Table 7-3. Components of Capital at Banks in Jordan on Branches and Consolidated Levels				
Capital Components	Consolidated		Jordan Branches	
	Total (JD million)	Percent of Regulatory Capital (%)	Total (JD million)	Percent of Regulatory Capital (%)
CET1	8,006.0	94.4	4,917.0	97.2
AT1	11.0	0.1	0.0	0.0
Tier2	461.0	5.4	143.0	2.8
Total	8,478.0	100.0	5,061.0	100.0

With respect to the components of capital at banks, the main component of banks' capital in Jordan is CET1. Therefore, Jordanian banks enjoy high-quality capitals (Table 7-3).

7.1.4 Conclusion

In conclusion, banks in Jordan are not expected to face any problems or difficulties in implementing Basel III capital requirements due to their sufficiently high CARs that are the highest in the region, besides the possession of high-quality Tier1 capital, of which most are CET1. Therefore, the implementation of Basel III helps sustain the stability of the financial system in Jordan. On another strand, the CBJ is in the process of issuing instructions regarding the implementation of Basel III liquidity requirements.

7.2 The Effect of Oil Prices Decline on Financial Stability in Jordan

7.2.1 The Effect of the Decline of Oil Prices on the National Economy

Oil and its derivatives are of the most important factors of production and the most influential element on all economic activities and to all economic agents (consumers, producers and the government). It is also the main factor in the rise in the risk of financial markets and many other commodities associated with it. This is attributed to the fact that oil is one of the most volatile primary goods and its prices are affected by many forces and economic and political events, and the financial markets expectations. Therefore, it difficult to predict the movements and trends of oil prices in the global markets.

To study the impact of the recent declining trend in oil prices on the Jordanian economy, it must be noted that the domestic prices of petroleum products before 2004 were to a large extent fixed and did not reflect the trends in the actual oil price in the world. Since 2004, the government began to raise prices of petroleum products in light of oil grants outages, especially the oil imported from Iraq. In 2008, the government floated the oil price partially. However, in the years 2011 and 2012, the prices were fixed again. Since then, finally, the government set a policy to update the oil prices on a monthly basis that is updated once a month based on the international trends.

In the light of the preceding analysis, the magnitude of the impact of the change in global oil prices on the various macroeconomic variables indicators in Jordan depends, to a large extent, on the decisions of the government pricing committee in reflecting these changes on domestic prices of petroleum products, which in turn impacts the cost of production, competitiveness of various sectors and value added for the various production and service sectors.

In this regard, the CBJ conducted research of the issue entitled "The Effect of the Decline of Oil Prices on the National Economy."[13] The study showed that there are some positive and other negative effects as follows:

1- The positive effects:

- The decline in the current account deficit as a result of the decline in the oil bill that adversely impacted the national economy. This reflects positively on the aggregate economic performance through directly affecting both demand and supply and, hence, the output will increase to meet the additional demand that

[13] This study is published on the website of the CBJ.

resulted from the price decline, besides decreasing the budget deficit more than the projected.

- Enhancing economic growth. The study revealed that there is an inverse relation between the oil price per barrel and economic growth.
- Decline in the inflation rate due to both the direct and indirect impact of oil price on many goods and services.
- Decline in the budget deficit as a result of the elimination of oil price subsidy and therefore saving the oil subsidy of cost that approximated JD180.0 million, besides cutting down part of the operational costs and flour subsidy.
- The decline in the losses of National Electric Power Company to JD762.0 million when oil price per barrel reaches US$73.0, according to the IMF projections. However, the official sources show a decrease in the loss of NEPCO to JD360.0 million in the case the price reaches US$60.0 per/barrel, assuming (1) the continued application of the decision of raising the electricity tariff, (2) the import of 50 million cubic feet of Egyptian gas and (3) the import of 150 million cubic feet of liquefied gas through the port of Aqaba.

2- The negative effects:

- The decline slows down the regional investment trends – consequently declining the inflow of foreign investment, slowing down the remittances of the Jordanians working in the Gulf and a decline in the tourism income.
- The decline decreases the revenues from the general sales tax and oil sales tax by JD97.0 million at a price of US$73.0, by JD149.0 million at a the price of US$60.0 per/barrel, and by JD189.0 million at a the price of US$50.0 per/barrel. This means that a decline of tax revenues for one dollar decline in oil prices is JD4.0 million, which consequently worsens the budget.

The decline in oil prices is expected to have positive effects on the Jordanian economy that exceeds the negative effects in the short term. However, in the medium and the long terms, the magnitude of effect depend the length of the decline period, the effect of decline and the effect of the decline on fiscal stance for the Gulf countries on the Jordanian economy.[14]

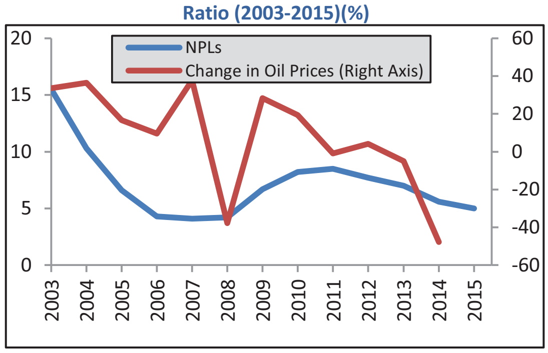
7.2.2 THE EFFECT OF OIL PRICES DECLINE ON FINANCIAL STABILITY IN JORDAN

The decline in oil prices raised several questions about the stability of the financial sector in the oil-importing countries, where workers' remittances enhance the liquidity of the banking system and foreign exchange markets in these countries. With expectations of continued low oil prices, there could still be challenges posed by the economic environment in which banks operate in the Middle East. In the event of a severe slowdown in economic activity, the credit risk might increase. The risk is further exacerbated in case of higher concentration of loans in the real estate and household sectors. A further decline in the oil prices might cause a slowdown in the growth of deposits and, hence, a decline in the credit extended to the private sector> In this regard, the econometric investigations applied to the Middle East countries shows a robust relationship between oil prices and the performance of banks.[15] An investigation of the effect of decline in oil prices on the non-performing loans and growth of deposits (in both domestic and foreign currency) in the banking sector in Jordan.

7.2.3 THE EFFECT OF OIL PRICES DECLINE ON NON-PERFORMING LOANS

Credit risks are one of the most important risks that banks are subjected to and that might have substantial impact on their solvency. Non-performing loans ratio is an important indicator of the quality of assets. As mentioned in Chapter three. This ratio witness a declining trend during the period (2011-2015) as it declined from 8.5% at the end of 2011 to 5.0% at the end of 2015.

Figure 7-1. Changes in Oil Prices and Non-Performing Loans Ratio (2003-2015)(%)



To assess the effect of the decline in crude oil price for different periods (t,t-1,t-2) on NPLs ratio for the banks operating in Jordan, an econometric model was designed for to predict the NPLs for 2016 based on a panel data for the period (1993-2015) including

[14] The study is available on the CBJ's website at the link http://www.cbj.gov.jo/uploads/st_1.pdf.

[15] Source: Regional Economic Outlook, Middle East and Central Asia. October 2010.

two lag periods[16] for oil price variable to measure the long-term effect[17]:

$$NPL_{it}=ß_0+ß_1NPL_{i(t-1)}+ß_2OILCHG_t+ß_3\ OILCHG_{t-1}+OILCHG_{t-2}+e_{it}$$

Where:

NPL: Non-performing Loans.
OILCHG: Percentage change in oil price per barrel.
ß's: Parameters.
t: Time. **e**: Error. **i**: Individual bank.

Since the relationship between the percentage change in oil price and economic growth is negative, as outlined previously, and since the relation between economic growth and non-performing loans in also negative – as explain in the Chapter Six about stress testing, the relationship between non-performing loans and oil price is expected to be positive.

The econometric analysis showed that the relationship between the Percentage change in oil price per barrel and NPLs is positive across different periods. This relationship is not statistically significant at time t, but is positive and statistically significant at times t-1 and t-2. This implies that there is a cumulative long-term impact, but not short-term, that results from the change in oil prices and positively affects the NPLs. However, it is noticed from the coefficients of the econometric model this impact is slight to some extent, as the decline in oil price by 1.0% will cause a decline in the NPLs at the banking sector by 0.03 percentage point.

Table 7-4.Econometric Model Estimation Results

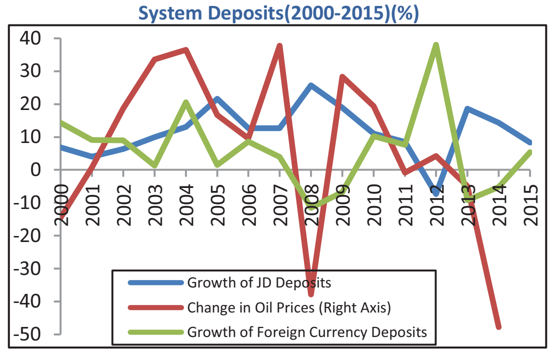
Variable	Coefficient	t-Statistic
C	7.058	14.991
NPL(-1)	0.466	9.982
OILCHG	0.005	1.188
OILCHG(-1)	0.0098	1.825
OILCHG(-2)	0.014	2.607
R- squared	0.407	
Adjusted R-squared	0.364	
F-statistic	26.80	
DW	1.851	

7.2.4 The Effect of Oil Prices Decline on Deposits at Banks

The World Economic Outlook report for October 2015 released by the IMF stated that the slowdown of the growth in the economies of the Gulf countries might negatively impact the growth of banking deposits in the oil importing countries in the Middle East. The Arab Economic Outlook report for April 2016 released by the Arab Monetary Fund asserted that the growth of deposits in the Arab banking sector might be affected by the decline in oil prices and the expected economic slowdown of oil producing countries due to the large share of its financial base of deposits of Arab countries.

In Jordan - As mentioned in Chapter three - the growth rate of deposits in Jordanian Dinars with the banking system has dropped for the third consecutive year. It reached 8.3% at the end of 2015, compared to 14.3% and 18.6% for the years 2014 and 2013 respectively. Regarding the growth of deposits in foreign currency, its rate reached 5.4% in 2015, compared to 5.2% and 9.2% for the years 2014 and 2013 respectively.

Figure 7-2. Changes in Oil Prices and the Growth of Banking System Deposits(2000-2015)(%)



To measure the impact of the change in oil prices on deposits at banks in Jordan across different periods (t, t-1, t-2), an econometric model was built to predict the growth rate of banking deposits (both in Jordanian Dinar and foreign currency) for 2016 using annual data for the period (1993-2015):

$$DEPJ_{it}=ß_0+ß_1\ OILCHG_t + ß_2OILCHG_{t-1} + ß_3OILCHG_{t-2} + e_{it}$$

$$DEPF_{it}=ß_4+ß_5\ OILCHG_t+ ß_6OILCHG_{t-1} + ß_7OILCHG_{t-2} + e_{it}$$

DEPJ: The growth rate of deposits in JD.
OILCHG: Percentage change in oil price per barrel.
DEPF: The growth rate of deposits in foreign currency.
ß's: Parameters.
t: Time. **e**: Error. **i**: Individual bank.

The statistical results showed that there are no statistically significant relationships among the dependent and independent variables. Consequently, it can be concluded that the deposits at the banking system in Jordan are not impacted (to date) by the changes in oil prices.

7.2.5 Conclusion

Based on the results, of the econometric analysis above, it is expected that the decline in oil prices will have a positive impact on financial stability in Jordan. This is attributed to the fact that the decline in oil prices raises the personal disposable income, and hence, enhances their ability to pay their debt to banks and financial institutions. This magnitude of the impact, however, differs by the length of the decline period, the effect of decline and the ultimate effect on workers' remittances and economic growth in Jordan.

[16] In econometric models, lags of the independent variables are used to assess the anticipated long-term effect, implying that the actual impact of the change in the independent variable does not immediately show in the same period but needs a longer time periods.

[17] In a study by conducted by the IMF to analyze the impact of changing oil prices on the financial stability of the Gulf, an econometric model was estimated VAR model with two lags period for the independent variables (which include NPLs ratio). The results showed that the long-term cumulative effect of oil prices is inversely related with the NPLs ratio – as the NPLs ratio increased 0.1 percentage points in the long term as a result of the decline in oil prices by 1.0%. NOTE: The vector auto regression (VAR) model is an econometric model suggested by Sims and treats all variables equally – i.e., as endogenous variables based on the same number of lags for all the variables used in the model.