Jordan Financial Stability Report 2014

Preface

The 2014 Financial Stability Report (**JFSR2014**) is the third 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. 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 **JFSR2014** showed that Jordan has a safe and sound banking sector due to its high levels of capital that are considered the highest in the Middle East and North Africa (MENA) region, in addition to banks having comfortable levels of liquidity and profitability.

The **JFSR2014** consists of eight chapters. Chapter One highlights the major Local and International Economic and Financial Developments and Outlook. It shows that the global economy has started to improve gradually after a period of recession. Despite that, the growth was very slow and unbalanced because of the rise in the financial and geopolitical risks in some regions of the world, besides the traces of the global financial and the Euro zone crisis. The chapter also analyzes the economic policies in Jordan and their impact in addressing the economic and financial imbalances. The outcome is a comparable improvement in most economic and monetary indicators from 2014 to 2013. The chapter also highlights some major challenges in the Jordanian economy, with the exacerbation of the instability in the region.

Chapter Two tackles the major Supervisory and Legislative amendments issued by CBJ in 2014 and other drafted laws, particularly the amendments of the Central Bank of Jordan's Law and the Banks' Law to make them in line with the up-to-date developments and the best international practices regarding the role of central banks in maintaining monetary and financial stability as well as supervising the banking sectors and enhancing the corporate governance at banks.

Chapter Three describes the most important CBJ procedures used in improving the Infrastructure of the Financial System and in enhancing Financial Inclusion in Jordan. These procedures include: improving the infrastructure of the financial system, enhancing financial consumer protection, enhancing financial literacy, improving access to finance, especially for the micro, small and medium-size enterprises, and monitoring and supervising the microfinance sector.

Chapter Four covers developments in the Financial Sector which showed that despite the geopolitical and economic risks in the MENA region, the banking system in Jordan was generally capable of maintaining its financial soundness and continues to improve. The chapter also shows the developments in non-bank financial institutions like insurance companies, microfinance companies, financial leasing companies, money changers, besides the Social Security Corporation that has a well-diversified financial and non-financial investment portfolio.

Chapter Five is about Systemic Risk Assessment. It explores the major risks that might impact the financial system. The main topics are: the exposure of banks and financial institutions to the household sector, the matching of the growth of credit granted by the financial sector with the economic activity in Jordan, banks' exposure to stock market risks, and banks' exposure to real estate market which is discussed in details in Chapter 6.

The data shows that the household debt-to-income ratio and household debt-to-wealth ratio both witnessed a continuous rise during the last five years. Thus, this signals 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. 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 ratio of the credit granted to the private sector to the GDP and the analysis of credit gap; the analysis of the credit gap revealed that this ratio in Jordan does not signify the probability of the accumulation of risks at the financial system level in the present time. The chapter also reveals that the exposure of the banks in Jordan to the financial market risks is very minor due to the relatively small portion of bank investments in stocks and credit granted for purchasing stocks or credit collateralized by stocks.

Chapter Six included a detailed analysis of the *Exposure of Banking System to Real Estate Market Risks and the Real Estate Price Index*. The real estate credit facilities and the facilities collateralized by real estate exceeded 33.4% 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 137.0% 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, 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.

Chapter Seven analyzes the Interest Rate Margin Components and its Determining Factors; the chapter claimed that the driving reason behind the high interest rate margins in Jordan relative to a selected sample of countries is that the banking sector in Jordan is relatively highly concentrated. Thus, this gives large banks that have high levels of liquidity and do not have to pay high interest rates on deposits a larger weight and role in determining the interest rate margin. The chapter also states that another reason for high margins is that the improvement in the operational efficiency of banks (as indicated by decreasing the share of both operating expenses and loan loss provisions from the margin) was not reflected on lowering the interest rates due to the banks action of increasing their profit margin. The chapter includes an econometric model that revealed that there is a positive relationship between GDP growth and the interest rate margin in Jordan. Therefore, the improvement in economic activity as shown by the increase in the GDP growth during the period (2013-2014) compared to the period (2010-2012) might be one of the drivers of the increase in the interest margin. The mechanism of impact starts from the improvement in the economic activity that is usually linked to the increase in the demand for credit, hence, banks are not obliged to cut down interest rates on credit in the same magnitude as the ones on the deposits in response to the CBJ's measures represented by cutting down the interest rates several times.

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Finally, Chapter Eight 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.

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 **JFSR2014** is published online on the CBJ's website http://www.cbj.gov.jo on the link http://www.cbj.gov.jo/uploads/JFSR2014E.pdf.

Governor

Ziad Fariz

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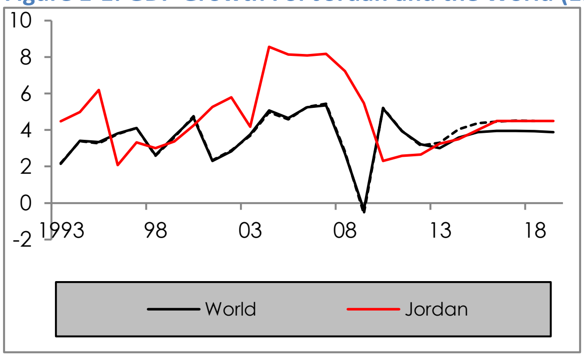
Chapter One: Local & International Economic and Financial Developments & Outlook

Introduction

The global financial system witnessed an increase in the financial and political risks during 2014, as the traces of the global financial crisis and the euro zone crisis were still there in many countries. Nonetheless, the risk of recession in the euro zone, which is the most dominant risk that took place in the last period, dropped significantly, as stated in the IMF's WEO for April of 2015. Despite the new setbacks that the world witnessed, particularly the exacerbation of the political tensions in the MENA region and high volatility in exchange rates, the global economy improved gradually, but economic growth remained too slow and unbalanced. Economic growth rate in the world amounted to about 3.4%at the end of 2014, with no significant change from the 2013 number.

Jordan witnessed a relative improvement in economic activity. The growth rate approximated 3.1% at the end of 2014 compared to 2.8% at the end of 2013 (Figure 1.1).

Figure 1-1: GDP Growth For Jordan and the World (1993-2019)(%)



According to IMF forecasts updated in April2015, the global growth is expected to reach 3.5% and 3.8% in 2015 and 2016 respectively, representing a decrease of 0.3% compared to the previous projections released in 2014. On another strand, the forecast of economic growth for Jordan for the next five years rose to between 3.8% and 4.5%. This implies that the economic environment in Jordan under which the financial sector operates will be relatively stable in medium term.

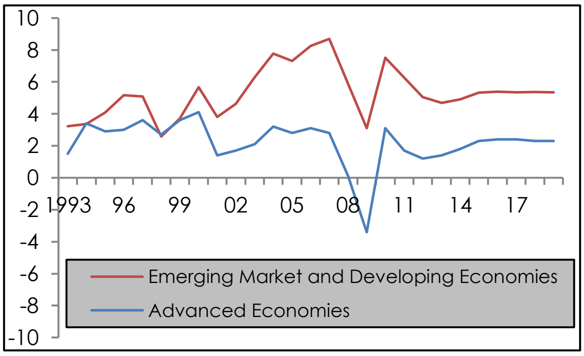
International Economic and Financial Developments and Outlook

International Economic Developments

The world economy witnessed a growth in GDP of 3.4% in 2014, with no change from 2013. This rate is projected to reach 3.5% and 3.8% in 2015 and 2016 respectively. As the expected drop in oil prices will most likely stimulate the global growth in the years 2015 and 2016. However, the gains from the drop in oil prices are expected to be outweighed by the impact of adjustment to the low growth rates in the medium term in the major economies except the US economy – per the IMF projections in the April 2015 WEO.

The potential growth in advanced economies is forecast to increase marginally, from an average of about 1.3% during the period (2008–2014) to 1.6% during the period (2015–2020), which is still well below precrisis rates. In emerging market economies, potential growth is expected to decline further, from an average of about 6.5% during the period (2008–2014) to 5.2% during the period (2015–2020). This decline is attributed to population aging, structural constraints affecting capital growth, and the low total factor productivity growth rates as these economies get closer to the technological frontier (Figure 1.2).

Figure 1-2: GDP Growth Developments and Outlook for Emerging Market and Developing Economies and Advanced Economies (1993-2019)(%)



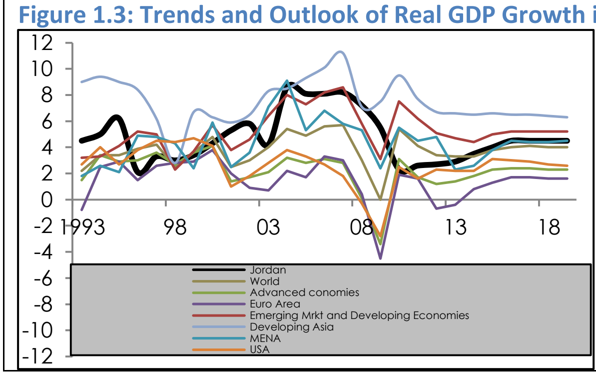
Regarding the economic outlook for the major economic groups in the world, the growth rate is USA is expected to exceed 3.0% during the period (2015-2016) with the improvements in domestic demand. The growth in the euro zone shows some recovery supported by the decline in oil prices and the low interest rates. The zone's growth rate is expected to exceed 1.5%. In Japan, the growth is expected to improve as well and reach 1.0% supported by the depreciation of Yen and the decline in the oil prices.

It is worth mentioning that there are currently two factors that are important in stimulating economic growth: the decline in oil prices, which is expected to last for a long period ahead, and the high volatility of exchange rates. Regarding the decline in oil prices, it led to substantial reallocation of income from oil-exporting countries to oil-importing countries. The former consequently cut their spending slightly as they have large financial reserves that prevent a dramatic cut in spending.

The decline in oil prices has started since June 2014 was affected by demand and supply forces. On the demand side, the International Atomic Energy Agency stated that the unexpected setback of demand explains only 20% to 35% of the decline. On the supply side, the supply increased due to the sudden rise in oil production due to the unexpectedly fast recovery of Libyan oil production, the immaterial response of oil production in Iraq to the turbulences in the country, the announcement of the Kingdom of Saudi Arabia, the largest oil producer in OPEC organization, that it will not cut down its oil production, and the decision by OPEC in November 2014 that it will keep its production limit of 30 million barrel per day unchanged. The forward market contracts indicate that oil prices will get to recovery (rise), but it will continue to be below its levels that prevailed in the last years.

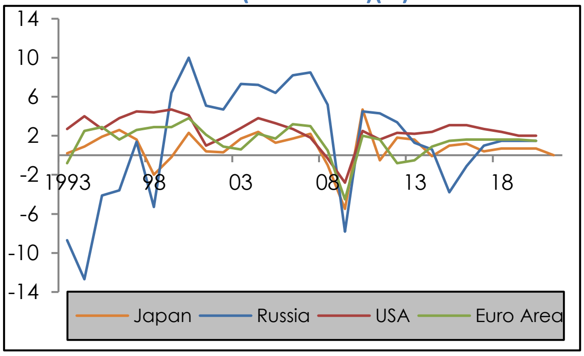
Per the IMF predictions, the growth will gain a positive push from the decline in oil prices that is accompanied by reallocation of income from oil-exporting to oil-importing countries. However, the exceptional gains that the oil-importing countries attained are less than the losses in oil-exporting countries, whose public finance depends heavily on the income from its exports of oil (Figure 1.3).

Figure 1.3: Trends and Outlook of Real GDP Growth in Jordan and Major Economic Groups (1993-2019)(%)



Regarding the volatility of exchange rates, it has motivated the world countries to adopt different monetary policies. For example, the USA is expected to cease its low interest rate policy. The situation is different in Japan and euro area, however. For the major currencies, the Dollar registered a realizable appreciation, whereas the Euro and the Yen depreciated substantially (Figure 1.4).

Figure 1.4: Trends and Outlook of Real GDP Growth for The Most Impacted Countries by Exchange Rates and Oil Price Movements (1993-2019)(%)



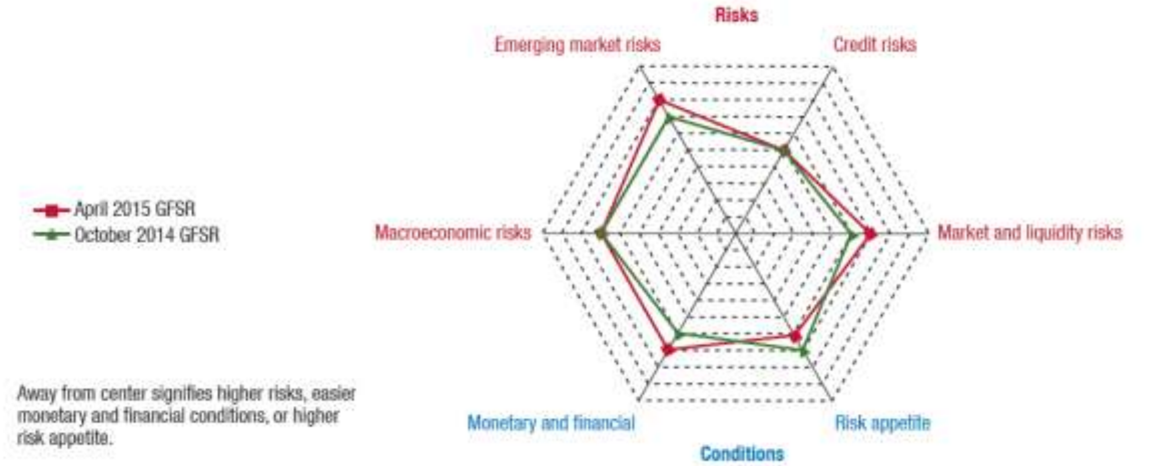
Global Financial System Stability

Global Financial Stability

The last period witnessed a number of favorable and unfavorable developments in the global financial and macroeconomic situation. The net outcome was an increase in the risks for the global financial system. The negative impact of the last shocks started to concentrate in the viable sectors and economies that are suffering from the weaknesses that took place in the previous periods. Besides, the continuation of financial risks and structural changes in the credit markets started to move the center of risks that threatens the financial stability from advanced economies to emerging market economies, from the standard banking to the shadow banking, and from solvency risks to market liquidity risks.

As mentioned in the introduction of this chapter, the global financial system witnessed a relative stability as evidenced by the global financial stability map that shows the increase in market, liquidity and emerging markets risks and monetary and financial conditions (Figure 1.5). Whereas credit risk and macroeconomic conditions remained unchanged, the risk appetite dropped.

Figure 1.5: Global Financial Stability Map



Source: IMF staff estimates.
Note: GFSR = *Global Financial Stability Report.*

Domestic Economic and Financial Developments and Outlook

Domestic Economic Situation and Outlook

The MENA region passed through several political and economic conflicts that substantially affected Jordan as a small open oil-importing emerging market economy country. The Jordanian economy has been exposed to many shocks since several years. The main being the repercussions of the global financial crisis and the Arab Spring and the resulting interruption of Egyptian gas flow, and the conflict in Syria and Iraq and the accompanying substantial influx of refugees. The year 2014 witnessed an exacerbation of the political tensions in the region, especially with the increased risk of terrorist organizations that are expanding rapidly in Iraq and Syria.

In spite of these challenges, the Jordanian economy was able to cope with them successfully. Thanks to the prudent fiscal and monetary policies that helped maintain the economic and monetary stability in terms of maintaining positive economic growth rates and a high level of foreign currency reserves, and attaining low price levels benefiting from global downward trend in oil prices. As a result, Jordan succeeded in placing economic and financial stability in 2014 in a better stance than 2013. Of the main indicators on this improvement are:

1- The improvement in the economic activity. As evidenced by the increase in the GDP growth rate from 2.8% in 2013 to 3.1% in 2014.

2- The decrease in the government's budget deficit from 5.5% of GDP in 2013 to 2.3% of GDP in 2014.

3- The decrease in the current account deficit from 10.3% of GDP in 2013 to 6.8% of GDP in 2014.

4- The increase in the Total merchandize exports (domestic exports plus re-exports) from 20.1% of GDP in 2013 to 20.3% of GDP in 2014.[1]

5- The decrease in the merchandize imports from 65.7% of GDP in 2013 to 63.5% of GDP in 2014.

6- The decrease in the energy imports by 11.5%.

7- Monetary stability through the increase in the foreign reserves by 17.3%. They exceeded$14.0 billion at the end of 2014.

8- Price stability as reflected in the noticeable decline of the inflation rate from 4.8% in 2013 to 2.9% in 2014.

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 2014 through 2019 were extracted from the World Economic Outlook Database prepared by the IMF.

Table 1.1 main indicators for the domestic economy and their outlook for the period 2005-2019

Year	GDP*	Inflation (Period average)*	Unemployment Rate (% of Labor Force)	Population** (Million)	Gross Debt***	Current Account***
2005	8.1	3.5	14.8	5.2	84.3	−18.0
2006	8.1	6.3	14.0	5.6	76.3	−11.5
2007	8.2	4.7	13.1	5.7	73.8	−16.8
2008	7.2	14.0	12.7	5.9	60.2	−9.3
2009	5.5	−0.7	12.9	6.0	64.8	−5.2
2010	2.3	4.8	12.5	6.1	67.1	−7.1
2011	2.6	4.2	12.9	6.2	70.7	−10.7
2012	2.7	4.5	12.2	6.4	80.2	−15.2
2013	2.8	4.8	12.6	6.5	80	−10.3
2014	3.1	2.9	11.9	6.7	80.8	−6.8
2015	3.8	1.2	11.9	6.8	90.7	−7.6
2016	4.5	2.5	11.9	7.0	88.4	−6.6
2017	4.5	2.4	11.9	7.1	85.2	−6.1
2018	4.5	2.1	11.9	7.3	81.1	−4.9
2019	4.5	2	11.9	7.5	77.3	−4.8

Source: IMF World Economic Outlook Database, April 2014. * 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.

[1] However, the exports (domestic exports plus re-exports) decreased by 12.1% in comparison with the same period of 2014.

Stand-by Arrangements

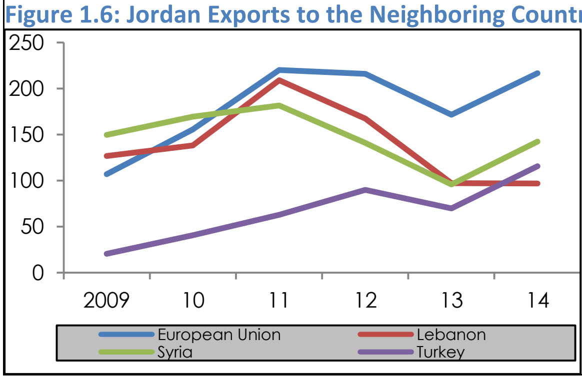
At the conclusion of its seventh and last review of the stand-by arrangements implemented by the Jordanian government over the last three years in coordination with the IMF, the IMF praised the performance of the economy as revealed in its monetary and financial indicators. The fund also welcomed the commitment of the Jordanian authorities to the economic program guidelines and the satisfactory progress attained despite the difficult regional environment that is mainly attributed to the continuous conflict in Syria and Iraq. The IMF approved the disbursement of last installment of $396.3 million of a total loan of $2.1 billion.

Challenges to Stability

Exacerbation of political turbulence and instability in the MENA region

Due to its substantial severe repercussions, one of the most challenging problems that Jordan faces is the exacerbation of turbulence and political instability in the MENA region. The closing of borders with Syria substantially worsened Jordan's trade, both direct and transit, with and through Syria. As Syria is a land path for the external trade with Lebanon, Turkey and the European Union. This challenge diversely impacted Jordan's trade with these countries since the beginning of the crisis to reach, meaning the trade, its lowest level in 2013. However, it attained some recovery in 2014. In this regard, the exports to Lebanon were the most diversely impacted ones (Figure 1.6).

Figure 1.6: Jordan Exports to the Neighboring Countries (2009-2014)(JD Million)



Consequently, the existence of more than 600 thousand Syrian refugees in Jordan[2] forms a huge pressure on the Jordanian economy in various sectors, especially education and health. Besides, it places a significant pressure on the labor market and thereby increasing unemployment rates through driving the level

[2] The estimated total number of Syrians (regardless of whether they are registered as refugees or not) that live in Jordan approximates 1.5 Syrians.

of wages down. Another negative consequence of the exacerbation of political turbulence and instability in the MENA region is the increase in military and security spending in Jordan. This is due to the fact that Jordan played a leading role in the war against terror.

The increasing strength of the dollar

The improved economic conditions in the United States relative to the rest of the world enhanced the strength of the Dollar, which could in turn 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.

The return of oil prices to rise

The oil prices have declined sharply since June 2014. It is expected that the downward trend will continue in the foreseen future. This movement led to some limited gains for the Jordanian economy of about 5% of GDP, as estimated by the IMF. However, the risk of aggravation of turbulence and instability in the MENA region may redirect oil prices to the upward trend in a faster-than-expected pace. In turn, this will most likely affect the Jordanian economy adversely. Despite the plausibility of the occurrence of this shock, the Jordanian economy has become more resilient against it because of the fundamental reforms that took place in the energy sector in Jordan.

Decline in the size of grants and aid

In light of the rising costs of Syrian asylum and the budget deficit, the potential decline in grants and aid from some countries, especially the Arab Gulf countries, might adversely affect the Jordanian economy by forcing the government to increase its borrowing and thus increase debt and reduce spending on infrastructure projects. This in turn will most likely affect the economic growth in Jordan adversely. This possibility entails on the government to adopt a prudent fiscal policy, accelerate the structural reforms and reduce dependence on grants and aid.

Chapter Two: Supervisory and Legislative Developments

Introduction

The CBJ continuously validates the performance and the work of the banking and financial institutions that are under its supervision legally in order to ensure the resilience of their financial positions in compliance with laws, bylaws, instructions and banking norms to attain banking safety and monetary and financial stability. In light of the CBJ's strategy aiming at adopting an effective banking supervision in compliance with the best international standards and practices, and complementing the efforts exerted in establishing sound rules for the business of finance and banking, the CBJ continued its comprehensive review of the legislations that judge the works of the of the banking and financial institutions that are under its supervision. These developments are discussed next.

Laws and Bylaws

Central Bank of Jordan's Law

In light of its pursuit to do a comprehensive review of the Central Bank of Jordan's Law of 1971 to keep pace with the latest developments and best international practices and experiences regarding the role of the central banks in attaining monetary stability and financial stability in its broad definition. To enhance the independence of the CBJ in implementing its tasks and attaining its goals, the CBJ formed a committee in 2013 to review the Central Bank of Jordan's Law and recommend a new amended law. The committee completed the task in the first quarter of 2015 and the amended law was finalized and sent to the Prime Ministry in April 2015. Later on, it was approved and sent to Legislation and Opinion Bureau to complement its legislative procedures.[3]

Banks' Law

Regarding Banks' Law, the CBJ formed a committee to review the Banks' law and suggest the necessary amendments to keep pace with the latest developments and best international standards and practices regarding banking supervision, especially

[3] The amended draft of this law can be found on the link: http://www.lob.jo/View_LawContent.aspx?ID=522

regarding applying the best corporate governance standards. The amended law was finalized and sent to the Prime Ministry in April 2015. It was approved and sent to Legislation and Opinion Bureau to complement its legislative procedures.[4]

Exchange Law

The cabinet approved a new Exchange Law in the beginning of 2015. The new law was consensual between firms and the CBJ in a way that serves the best interests of individuals and business in this important sector.

The new law was suggested 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. The law enforced goes back to 1992.

The most important financial and economic outcomes of the enforcement of the new exchange law are the expanding the types of companies that are eligible for licensing to practice the currency exchange profession and the elimination of the restrictions that deter investments and capital inflows inside and outside Jordan and allowing the licensing of branches of foreign exchange companies in Jordan and establishing measures to control the works of exchange companies in alliance with the economic situation and the updates in the exchange sector.

The new draft law sets the requirements and conditions for the licensing of exchange companies and enhances the authority of the CBJ through setting limits for the financial ratios of the exchange companies required for maintaining the resilience of their financial positions.

It is worth noticing that the Economics and Investment Committee at the House of Representatives has started recently its discussions of the articles of the new law.

Micro-Finance Companies' Bylaw

The CBJ has taken a strategic decision to expand its supervision umbrella to include the micro-finance sector. The cabinet approved the Micro-Finance Bylaw No. 5 for 2015 that was released in the Official Gazette on 01-02-2015 and came into force on 01-06-2015.

The issuance of this bylaw was intended to form a legal base and a reference for the CBJ's supervision of this vital sector that contributes in driving down unemployment rates and fighting poverty pockets through the funding of small-sized development enterprises. The articles of this bylaw targeted to maintain the

[4] The amended draft of this law can be found on the link: http://www.lob.jo/View_LawContent.aspx?ID=521

resilience and the soundness of the sector and enhance its role in financing micro, small and medium-size projects and low-income individuals who do not have access to financial services, totally or partially, in a way that contributes to enhancing financial inclusion in Jordan.

This bylaw gives the CBJ the authority to determine the requirement for the entry in the market of this sector, besides setting the other supervisory requirements. In this regard, a new division was established in the CBJ's Banking Supervision Department tasked with the supervision of this sector. The detailed instructions that are required to implement the bylaw and supervise and monitor this sector are being prepared.

Instructions

Instructions of Corporate Governance in 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 Organisation for Economic Co-operation and Development (OECD) and Basel Committee on Banking Supervision and Financial Stability Board 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 the **Corporate Governance Instructions No. 58/2014 dated 30-09-2014** in a way that complies with best known international standards and practices. 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. 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.

It is worth noticing that the CBJ issued the **Corporate Governance in 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).

Instructions of Classifying and Addressing Rent-To-Own Schemes at the Licensed Islamic Banks

In compliance with the accounting and auditing standards issued by AAOIFI, the CBJ issued the **Classification of and Treating Rent-To-Own Schemes at the Licensed Islamic Banks Instructions No. 60/2014 dated 17-11-2014** that will take effect on 31-12-2015. These instructions detailed the approaches of classifying and treating matured but unpaid rental premiums in the rent-to-own schemes and specified the methodology for calculating provisioning. The instructions also details the ways of rescheduling the non-performing rental premiums. It also stressed on the obligation that Islamic banks must set written measures on the treatment of rent-to-own schemes, starting from establishing the relationship with the client and ending with the ownership of the leased assets, including the cases for the termination of contacts voluntarily or involuntarily. These measures must be informed to the CBJ after their approval by the Bank's Board of Directors.

Supervisory Memorandums

In order to help maintain and sustain the resilience and soundness of the banking and financial sector, the CBJ issued several supervisory memos in 2014, of which the most important are:

Memorandum No. 10/2/2/12188 dated 08-10-2014 requesting the banks to furnish the CBJ with monthly statements including additional detailed data about interest rates on deposits and facilities in an aim to improve the precision in evaluating the changes in the interest rates at licensed banks and linking them to the relevant time period of the change and its consistency with the monetary policy trends.

Memorandum No. 10/1/4076 dated 27-03-2014 requesting the elimination of the policy of excluding the value of the expropriated property values that are done so as collaterals for loans in violation of Banks' Law in effect from the banks' regulatory capital.[5] Instead, the memorandum mandated the banks to build gradual provisioning for five years against the expropriated properties that are done so as collaterals for loans. The memorandum revealed the methodology of building such provisions and the factors that are to be considered when building them. The memorandum also requested the banks to continue reevaluating the values of the expropriated properties that are done so as collaterals for loans on the date of the financial statements on an individual basis and showing their actual figure or their fair value whichever less. The decline in its value must be recorded as a loss in the income statement, whereas the increase in its value must NOT be recorded as revenue. Any succeeding increase after a decrease must be recorded in income statement to a limit not exceeding the value of the decline that was previously recorded. This memorandum will take effect on 31-12-2015.

Memorandum No. 10/2/4/1339 dated 29-03-2014 stressing the need to commit to risk management principles of electronic banking that entails on banks to ensure that the tools and techniques needed to verify the banking services that are executed electronically are used in a way that ensures the accountability and non-denial, as this might result in a loss for the clients or the bank that might in turn negatively impact the bank's reputation and the soundness of its financial position.

In its **Memorandum No. 1/1/5/2451 dated 20-02-2014** to the licensed banks, financial institutions, exchange companies and payment cards companies, the CBJ declared the illegality of dealing with Bitcoin in any way or form. Bitcoin is a hypothetical illegal currency as there are no obligations on any central bank or government in the world to exchange the value of this currency with any currency issued by any of these governments, or in exchange for any international tradable good or gold. Dealing with this currency is highly risky because of the very high volatility of its value, besides financial crimes, electronic hacking and the large possibility for this coin to lose its value in the absence of any guarantee from any legal entity to cover its value, besides unavailability of matching assets.

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

[5] Under paragraph (b) of Article 48 of the Banks' Law No. 28 of 2000 and its amendments, the licensed bank must get rid of the expropriated properties in a period not exceeding two years from the date of the expropriation. And the CBJ has the authority, under some special cases, to extend this period to additional two years as a maximum.

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 the banks only.

It is worth noticing that in the context of enhancing the consumer protection, the CBJ issued the **Treating Customers Fairly Instructions No. 56/2012 dated 31-10-2012**. The instructions aim at increasing the ability of customers to make comparisons when dealing with banks so that banks are restricted from imposing unfair terms and conditions. For example, giving the bank the right to increase the agreed-on interest rates is restricted under these instructions. Generally, these instructions target a balanced relationship between banks and their clients (customers).

Chapter Three: The Infrastructure of the Financial System and Financial Inclusion

Introduction

The CBJ continued its efforts in 2014 in expanding the financial inclusion in a deliberate and prudent manner and availing the required infrastructure for this strategic goal to help attain a comprehensive and a sustainable growth in Jordan. To attain this goal, the CBJ undertook the following policies in 2014:

- Improving the infrastructure of the financial sector
- Enhancing financial consumer protection
- Spreading banking and financial literacy
- Increasing the chances for SMEs to obtain funding
- Supervising and monitoring micro-finance sector

These procedures are expected to reflect positively on financial inclusion and, hence, increase financial depth and sustain financial, economic and social stability in Jordan.

Box 3.1: Financial Inclusion Concept
Financial inclusion is a "vision that reaffirms the basic tenet that the right access to the right formal financial service helps households, microbusinesses, and the economy as a whole, and a vision that recognizes that financial services are not an end in and of themselves but ultimately must improve household welfare. Access to formal financial services needs to give poor families a broader range of choices to build assets, smooth consumption, manage risks, and as a result make them better off than when they have to use traditional, informal alternatives that are often limited, unreliable, and costly". Where the informal channels are a path for those whom could not access the formal services- the channels usually include unfair terms and conditions for granting credit to potential clients which in turn deepen the financial problem of this group that cannot access the formal financing channel. The G20 adopted indicators to measure the financial inclusion that are composed of three dimensions: access to financial services, use of financial services and the quality of banking products provided.
[1]Consultative Group to Assist the Poorest (CGAP). Annual Report. November 2011.

Enhancing the Infrastructure of the Financial System

Improving 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.

The vision of the national payments council's payment and settlement systems for the period (2013-2016) was designed in a way that keeps pace with the developments and enables a wider participation in the payment and clearance systems and builds a secure and efficient national payment system that supports the implementation of the monetary policy effectively and contributes to sustaining financial stability. These all add to enhancing financial inclusion in Jordan.

The importance of payment and settlement systems is revealed through their vital role in sustaining and establishing governance standards in electronic payments, creating a solid infrastructure of the financial system and reducing the use of paper money. This is done through upgrading to an electronic payment environment and creating a competitive environment in Jordan within which the economic sectors compete in serving their clients and providing convenience to them by providing payment and electronic transfer solutions and reflecting this on economic activity, as well as increasing collection rates and, hence, the velocity of money and its circulation in all economic activities and reducing the risk of cash payments and collections. Not to forget their contribution to supporting the GDP, adjusting spending and consumption, adopting proper financial planning, deepening financial intermediation, and, hence, enhancing financial stability. Eventually, the economy as a whole benefits through the creation of jobs, the improvement of the living standards and the alleviation of poverty.

Realizing the importance of enhancing financial inclusion and in order to advance the national payment system in Jordan to keep pace with best international standards and practices, the CBJ undertook the following tasks:

1. Setting comprehensive retail payment systems that enable moving from paper-denominated payment environment to non-paper (electronic) environment in a way that attains the CBJ's goals in expanding the financial inclusion in Jordan. Both the CBJ and National Payment Council do support this move through encouraging the modern attainable payment initiatives, and exploring the possible opportunities to increase investment in advancing the electronic payment process, and facilitating and framing the use of new and creative payment tools. The CBJ works also on transferring the government payments from paper-dominated to electronic ones due to the substantial transactions in quantity and volume and because most of the beneficiaries are unbanked. This will make the improvement process more feasible and robust.

Box 3.2: Payments and Settlement System Strategy (2013-2016)
• The National Payments Council developed a comprehensive and ambitious strategy for payment systems for the years 2013-2016 to meet the needs of all the parties involved and the local society in general and in line with the best international practices and recommendations. The strategy was prepared by the member banks in the Council, the Securities Depository Center and other relevant parties. The strategy benefited from the experiences of other countries, published studies new principles of Financial Market Infrastructures (PFMIs). The new strategy paid attention to address the weaknesses outlined in the World Bank Evaluation Report entitled "Assessment & Evaluation Report Observation on the Payment and Securities Clearance and Settlement Systems of Jordan", which was prepared in 2008 partnership with the Arab Monetary Fund and the International Monetary Fund. The strategy covered three major dimensions: Establishing and updating the legal framework to assure the presence of a comprehensive legal environment • Improving the efficiency and requirements of the payment, clearance and settlement systems – especially those that might include high operational risk and the access and participation in the national payment system • Preparing a comprehensive national strategy for the electronic retail payment systems and financial inclusion

2. Inserting the mobile into banking sector that includes such services as sending text messages to clients about their account transactions and mobile banking: With the application of these tools, the client is able to execute some of his banking operations (money transfer, bill payment, applying for a statement of account or check books, notification of the outcome of a given financial transaction) using his/her cell phone without a need to go to his/her bank physically.

Mobile Payment

The CBJ's initiative in modernizing and building the national switch for payment using cell phones aimed at facilitating the exchange of financial transactions among the service providers for clearance and settlement among the clients of a given individual service provider and among different service providers using their settlement banks' accounts.

The mobile payment system is an electronic system operated and regulated by the CBJ, in which the banks, companies and beneficiaries of service are registered for the purpose of exchanging financial transactions; and through which the net financial positions are extracted, credited or debited to the accounts of banks or settlement banks as appropriate using RTGS, and all transactions effected through which are documented, can be done. The mobile payment system was formally launched on 01-03-2014. The relevant **Mobile Payment Instructions** were issued on 31-12-2014, attached to it the **Operational Framework for the Mobile Payment**. Its governing instructions that deal with money laundry and financing of terrorism were furnished to the mobile payment service providers that was first implemented on 11-08-2014 (Appendices 1 & 2 list down the governing instructions for mobile payment).

International Bank Account Number (IBAN)

The IBAN is intended to standardize the account numbers in all banks operating in Jordan in accordance with international standards to enhance the efficiency of the National Payments System, and assist in the development of payment systems in Jordan so as to keep pace with the most recent international standards and to improve the efficiency, speed, accuracy and quality of processes and facilitate the automation of domestic and foreign transfers for the benefit of banks operating in Jordan and their customers. With the accelerated pace of its use in the recent years, the IBAN has been applied in more than 60 countries in the world, making its application a global requirement that must be abided by. The length of the account number varies by country with a maximum of 34 digits in accordance with ISO13616. In Jordan, the IBAN's length is 30 digits. In this regard, the CBJ issued **International Bank Account Number (IBAN) Instructions No. 22/2013 dated13-06-2013** about the application of IBAN in Jordan, accompanied by a user guide and an action plan. These instructions came into effect on 02-02-2014. Appendix 3-1 details IBAN application instructions.

E-Banking Services for CBJ's Clients

The E-Banking services were availed to CBJ's clients of various governmental entities through the internet in accordance with the best international practices concerning information safety and security. Through this system, the CBJ's clients can execute several banking services electronically. The first phase of this system was launched in the first quarter of 2014. In this phase, the clients can check their account balances, print statements of accounts and credit or debit notice, request stopping checks and request check books, besides other non-financial banking operations. In effect, this reduces paper transactions; helps enhance speed, precision and efficiency in providing financial services; reduces cost and increases the satisfaction of service recipients. A total of 77 clients out of 115 clients were linked to the system. In the second phase, the clients will be able to do the following banking operations: transfer between various accounts of the same client in JD or foreign currency, transfer from one client's account to another client's account in JD or foreign currency at CBJ and transfer from one client's account at CBJ to another client's account at commercial banks in JD or foreign currency.

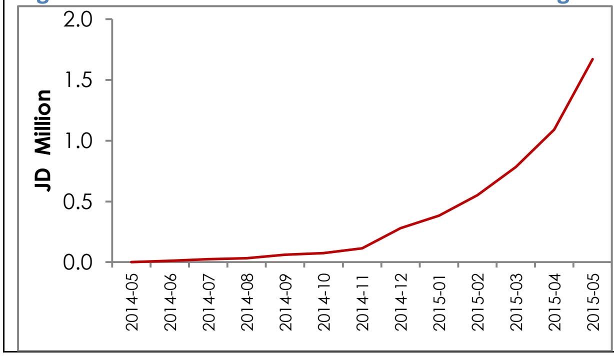
The CBJ also launched the eFAWATEERcom system. This system aims at bridging the gaps in bill payment services that are offered by some banks and payment service providers; mainly the absence of integrated central linkage with the bill issuers, banks and payment service providers. The system intended to provide easy technical solutions for all parties through shortcutting multiple links to one link. The eFAWATEERcom system works as a mediator between the parties involved. It provides a mechanism to view bills, inquire about them, pay them and report direct payments.

eFAWATEERcom is an efficient and comprehensive central system to help view and settle bills and other payments electronically for individuals and corporates, regardless of whether they have bank accounts or not, and the providers of payment services, banks and issuers of bills. The National Payment Council in its decision No 6/2013 dated 13-12-2013 enforced the mandatory connection of banks working in Jordan with eFAWATEERcom, and determined the connectivity and release of service deadline to be 29-06-2013.

The eFAWATEERcom system combines government institutions (billers) on the one hand, and banks and payment service providers on the other hand, to get to customer service (consumers). This system aims at facilitating and accelerating the process of viewing and collecting invoices and other payments across all banking channels in Jordan (bank branches, ATMs, phone banking, Internet banking, and payment through a mobile phone, and payment kiosks, etc.). The system came as response to the need for financial regulations and to the management of costs and benefits. At the same time, the system encourages the users to switch to electronic payment channels that contain a broader list of due financial payments (Appendix 4 explains the regulatory framework for eFAWATEERcom system.

The value of executed transaction through eFAWATEERcom totalled JD4.5 million approximately since the launching until May 2015 (Figure 3.1 depicts the monthly total transactions executed through the eFAWATEERcom).

Figure 3.1: Value of Executed Transactions Through eFAWATEERcom since the Launching until May 2015



Monitoring External SWIFT Messages

The CBJ subscribed to monitoring external incoming and outgoing SWIFT messages service (FinInform) in coordination with Society for Worldwide Interbank Financial Telecommunication (SWIFT). Through this, the CBJ aims at meeting its needs that relate to foreign wire transfers learning from the practices of various central banks in the world and the international supervisory bodies on one hand, and being able to obtain all the statistical and supervisory information about all incoming and outgoing external SWIFT messages for the banking sector in Jordan through SWIFT network on another hand.

Monitoring and Supervising Payment Systems

The CBJ supervises and monitors the payment and settlement systems in Jordan to ensure their compliance with the best international practices in this regard, and in an effort to ensure the proper financial and cash flow through the payment and settlement systems and make sure that safety and efficiency are both present. The CBJ aims from implementing the supervision and control of payment and settlement systems to ensure the existence of efficient, credible and secure payment and settlement systems that eventually reflect on increasing efficiency and effectiveness of monetary policy implementation, enhance financial stability in Jordan and help mitigate the systemic risk associated with the capital markets infrastructure, in addition to increasing users' confidence in the electronic cash and the other various payment tools by means of enhancing the technological and institutional development of the payment and settlement systems.

In this regard, the CBJ bears the responsibility of formulating the policies, setting the measures, performing onsite supervision for the payment and settlement systems, evaluating these systems, executing rules and regulations and regulating and managing payment and settlement systems (regardless of whether they are owned or managed by CBJ or any other party). The CBJ also built clear performance indicators and works on enhancing the qualitative statistical reports about payment and clearance systems.

The CBJ also aims at regulating electronic payment tools in the local market like debit and credit pay cards, including prepaid ones, ATM machines, and points of sale as well as other payment tools. Moreover, the CBJ sets the governing instructions that help curb the risks associated with various electronic payment tools and make it available to potential users.

Developing and Launching Automatic Clearance House

The CBJ is currently working on developing and launching automatic clearance house (ACH), which is a central electronic payment system that enables all member banks to execute and exchange the low-value credit and debit money transfers. The system is expected to be launched by the last quarter of 2015.

Moreover, the CBJ is building the legal and regulatory frameworks for all payment, clearance and settlement systems in Jordan that will eventually be published on the CBJ's web site to enhance transparency and disclosure.

Finally, the CBJ is exerting big efforts to improve and modernize payment and settlement systems and their governing legal and legislative frameworks that eventually guarantee the existence of a comprehensive legal environment that is compatible and consistent with international standards and regulations. These improvements are expected to enhance the supervisory function of the CBJ on the payment services companies aiming at attaining the highest possible degree of transparency, speed, efficiency and competiveness, besides protecting the financial customers spreading educational and awareness programs about the electronic financial services in Jordan.

Credit Information Agency

The CBJ initially approved the licensing of the first credit information agency that is postulated to start its business in Jordan by the conclusion of 2015. The company plans include availing 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 fair decision is made based on a precise evaluation of the clients' abilities 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 of the clients (particularly SMEs) to access potential financing. The establishment of this company is expected to reflect positively on sustaining financial inclusion and, hence, enhancing financial stability in Jordan.

Banking Supervisory Database

The Banking Supervisory Database was launched in December 2014. It is an electronic database that links the banks with the CBJ. It enables the CBJ to obtain bank's data faster and with a high degree of precision and security without the need to use hard copies, floppy drives or any other storage media. This in turn saves time and effort and enhances the efficiency and effectiveness in analyzing banks' financial data and hence enhances offsite supervision.

Enhancing Financial Consumer Protection

Several studies published by the international agencies stressed on the importance of financial consumer protection and its positive impact on financial inclusion. 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.

The CBJ is considering the expansion of consumer protection to include non-bank financial institutions in the light of its policy to expand its supervisory umbrella to include these institutions after the inclusion of microfinance institutions. It is worth noting that an amount of $1.2 million from the World Bank grant of $3.0 million were devoted to the development of the Division of Financial Consumer Protection and building its employees' capacities. It is expected that a consultant be recruited in 2015 to prepare evaluative and diagnostic studies targeting the strengthening of the protection of financial consumers in Jordan.

Spreading Financial and Banking Literacy

Financial Literacy is considered one of the most important factors that help expand the financial inclusion and enhance the consumers' protection.

In this regard, the CBJ initiated a project to spread financial literacy in Jordan aiming at supporting comprehensive and sustainable growth and, hence, financial, economic and social stability in Jordan.

The Project Objectives and Targeted Sectors

The project aims mainly at spreading financial literacy in all sectors of the Jordanian society so that the financial consumers:

- 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 program has already started and includes financial education in schools. The CBJ, in collaboration with the Ministry of Education and INJAZ (a Jordanian non-profit entity), started to prepare a financial literacy course to be taught as an independent course in the curriculum of the Ministry of Education. The course is to be offered in a frequency of one lecture per week like other courses in the curriculum. The program determined the grades (school years) to include the seventh to the twelfth (Tawjihi) grades. The outline and the targeted educational outcomes of the "Society Financial Literacy" course have been set. The offering of seventh grade curriculum is planned to start in the academic year 2015/16 after approving and printing the required books and training the teachers who will teach the course.

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:

- Financial education in the higher education institutions
- Spreading financial literacy via mass media
- Financial literacy to develop businesses
- Financial education at workplace
- Financial education for woman and rural areas
- Electronic financial education

Improving Access to Finance – Especially for Micro, Small and Medium Enterprises (MSMEs)

In light of its keenness to support MSMEs due to their vital role in enhancing economic growth, reducing unemployment and alleviating poverty, the CBJ, since two years, and in collaboration with the Ministry of Planning and International Cooperation and international and regional financing institutions, has been attracting funding for the MSMEs' sector that reached $440.0million at competitive interest rates and for suitable maturities, as well as guarantees for the granted loans as follows:

World Bank (WB) loan of $70.0 million. The full amount of the loan was fully utilized by the end of 2014 in a year and a half, compared with four years that was expected by the World Bank. More than 6000 micro, small and medium size projects, of which about 60%was granted for projects located outside the Capital Amman. The funds granted by banks through this project helped create about 2,200 jobs. In light of the success of the first loan, an additional loan agreement of $50.0 million was signed with the WB in April 2015 for the same purpose.

Arab Fund for Economic and Social Development (AFESD) loan of $50.0 million. The amount obtained by the end of July 2015 totaled $25.0 million. In addition, one other agreement was signed with the AFESD in the amount of $100.0 in April 2015, and a second one was initialed in the amount of $50.0 million. The funding is expected to be released by the end of 2016. In addition,

In addition, the CBJ facilitated and provided all the required support to banks to benefit from a special funding from the European Bank for Reconstruction and

Development (EBRD) of $120.0 million for the same purpose, besides technical assistance and loan guarantees. Moreover, the EBRD signed two agreements with two banks totaling $40.0 million.

Besides, the CBJ offers funding for manufacturing, tourism, renewable energy and agriculture sectors (including SMEs) at a competitive rate of 1.75% as of July 2015- a 2.0% less than discount rate and for maturities that are appropriate for the funding needs of the clients and a ceiling of 5.0% of the outstanding loan portfolio for each bank. The total funding allocated to these sectors totaledJD900.0 million. A number of 171 projects benefited from this program and obtained about JD146.0 million distributed across these sectors by JD79.5 million, JD17.1 million, JD41.6 million and JD7.9 million respectively.

The CBJ decided in June 2015 to involve the Islamic banks in the program after signing a restricted investment agreement with the Islamic banks wishing to benefit from the program. In this regard, an agreement was signed with Islamic International Arab Bank in month 2015.

Regarding availing the needed guarantees for financing the SMEs, the Jordan Loan Guarantee Corporation (JLGC) was restructured and its working procedures and scope of work improved to make it able to avail the needed guarantees for financing the SMEs. Besides, under progress is the establishment of a specialized fund for supporting SMEs, especially the newly established ones through availing the needed guarantees for financing their projects. In this context, the CBJ plans to allocate part of the loans obtained from international and regional bodies to JLGC for this purpose.

Monitoring and Supervising Micro-Finance Sector

As mentioned in Chapter two, the CBJ has taken a strategic decision to expand its supervision umbrella to include the micro-finance sector. The cabinet approved the **Micro-Finance Bylaw No. 5 for 2015** that was released in the Official Gazette on 01-02-2015 and came into force on 01-06-2015. The CBJ started to prepare the detailed instructions needed for supervising and monitoring this sector. The articles of this bylaw aim at enhancing the soundness and resilience of the sector and expanding its role in financing low-income individuals who do not have full or partial access to financial services, in a way that contributes to enhancing financial inclusion in Jordan.

Appendix 3.1: Mobile Payment Service Instructions for 2013

These instructions determine how to subscribe to the national switch. It also determines how the connectivity to the service is approved, besides the method and requirements for the provision of mobile payment service by banks and companies. The instructions also set the obligations of the different parties involved in the process to enable the mobile phone users to execute their payment transactions using their mobile phones with maximum security and confidentiality.

These instructions and the **Operational Framework** aim to clarify the structure of processes, techniques and operational environment of the mobile phone payment and settlement service, besides the quality of services provided. They also aim to enable the customers to carry out some of their banking operations (mobile shopping, bill payments, cash unit payments) so that these services are instant, secure and with ceilings for every customer for a determined period.

These instructions also included client protection. Per these instructions, the service provider shall provide the general provisions for benefiting from the service so that these provisions are made available either in the form of booklets or published on the service provider's website. The instructions also mandated that the relationship between the service providers and customers must be built on a formal contractual agreement stipulating the conditions for benefiting from the mobile payment service, and incorporates at least the roles and responsibilities of service providers and clients and the minimum charges (fees and commissions) that are to be imposed on the clients, besides providing the customers with sufficient learning material about the service implementation process and the mechanism of dealing with customer complaints and suggestions.

The instructions also included details about monitoring and supervising the operations of the service provider, service terms and conditions, dispute resolution mechanism and clients' complaints addressing.

Appendix 3.2: Money Laundry And Financing Of Terrorism Were Furnished To The Mobile Payment Service Providers Instructions

The fight against money laundering and terrorism financing represents a great challenge and an important concern of the regulatory authorities and financial institutions (payment services providers) involved in the national switch system to pay by mobile phone and other related parties. The existence of an effective system to combat money laundering and financing of terrorism is considered an important basis in fight money laundering and terrorism financing, hence, and in compliance with international standards in this regard, the CBJ issued on 08-11-2014 the governing instructions for fighting money laundering and terrorist financing in the provision of payment services by mobile phone.

The instruction obligate the financial institutions to practice the due diligence responsibility towards their clients who use mobile payment service, by selecting the way through which the CBJ forces specific commitments related to due diligence obligations to customers.

The measures include the customer identification and verification using documents, data or information from a reliable and independent sources, and determine the identity of the real beneficiary and taking reasonable measures to verify his/her identity so that the financial institution make sure that they have satisfactory information about their clients. With regard to legal persons and legal arrangements, the instruction mandated the financial institutions to understand the structure of ownership and control of the customer and understand the purpose of the work and nature of the relationship and get information about it. In addition to making continuous due diligence on business relations and the scrutiny of the operations that are executed during the period of this relationship to ensure consistency of the executed operations with the institutions knowledge, activity and the risk profile of their clients and, including knowledge of the source(s) of funds if necessary.

These instructions have come to stress on the need of the financial institutions to identify, evaluate and understand money laundering and terrorist financing risks that it or its clients face. It also intended to require them to take the necessary procedures and measures, including the identification of a mechanism to coordinate the procedures for risk assessment and directing resources to ensure reducing risk effectively based on this evaluation. Per these instructions, the financial institutions must follow a risk-based approach to ensure undertaking suitable measures to prevent or mitigate money laundering and financing of terrorism in the light of the risks that have been identified, that this approach represents a fundamental pillar for the efficient allocation of resources through the fight against money laundering and the financing terrorism system.

Appendix 3.3: The International Banking Account No. 22/2013 Dated 13-06-2013

The International Banking Account Number (IBAN) was designed by the International Standardization Organization. It is based on international standards in accordance with ISO 13161. The IBAN number includes enough space for entries that cope with any bank account number in Jordan, which in turn helps simplify settling bank transfers and pass them through the electronic systems, besides improving the fast automatic depositing of the transfers. In this respect, the beneficiary's account number is precisely identified, known and quickly located. Consequently, this will enable the transferring bank to validate the beneficiary's account number to avoid returning the transfers with incorrect account numbers that needs substantial time and effort to amend. The most important benefits from using the IBAN are:

- Helps implement direct automatic execution of transfers, which in turn cuts down the manual work to execute them.
- Includes all the information required to facilitate the transfer execution for local and international transfers.
- Avoids the mistakes stemming from the incorrect account number.
- Simplifies the execution of financial transfers for the clients through all banking channels available to them.
- Decreases cost and improves the operational efficiency in processing financial transfers.

Appendix 3.4: Regulatory Framework for eFAWATEERcom System

The eFAWATEERcom system is one of the retail payment systems. It is a centralized system for viewing and collecting bills and other payments electronically that combines government institutions (billers) on the one hand, and banks and payment service providers on the other hand, to get to customer service (consumers) and promote financial inclusion. This system aims at facilitating and accelerating the process of viewing and collecting invoices and other payments across all banking channels in Jordan (bank branches, ATMs, phone banking, Internet banking, and payment through a mobile phone, and payment kiosks, etc.). eFAWATEERcom system supersedes the services provided by existing systems as it provides a mechanism for viewing and collecting bills for various entities in the public and private sector (insurance, health, education, tourism, technology and communications, public services, and government payments, etc.) in addition to e-commerce.

When established this system, the CBJ aimed at bridging the gaps in bill payment services that are offered by some banks and payment service providers; mainly the absence of integrated central linkage with the bill issuers, all banks and payment service providers. This system came to provide easy technical solutions for all parties through shortcutting multiple links to one link. The eFAWATEERcom system works as a mediator between the parties involved and provides a mechanism to view the bills, inquire about them, pay them and report the direct payment.

The system came as response to the need for financial regulations and costs and benefits distribution. At the same time, the system encourages the users to switch to electronic payment channels that contain a broader list of due financial payments.

In order to achieve the goals envisaged from eFAWATEERcom system. The CBJ undertakes the responsibility of supervising and controlling the system and setting its regulatory framework. In this regard, a regulatory framework was already set. It encompasses the necessary arrangements for the viewing and collecting bills electronically and determines the responsibilities of the parties involved to enable them to carry out viewing and billing processes electronically with highest levels of safety, efficiency and reliability.

Chapter Four: Financial Sector Developments

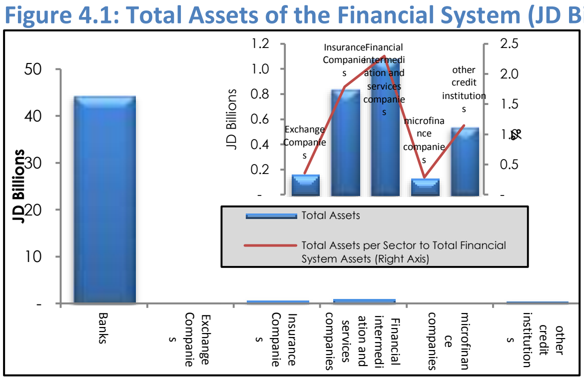
Introduction

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. Whereas the Ministry of Industry and Trade and Amman Stock Exchange are responsible for monitoring and supervising insurance companies and financial intermediation companies respectively. Regarding micro-finance companies, effective 01-06-2015, they became part of the CBJ's supervisory umbrella. Regarding the other credit institutions, there is no agency responsible for supervising and monitoring their works. However, the Ministry of Industry and Trade is responsible for registering these institutions.

The assets of the financial system reached JD47.2 billion at the end of 2014, of which the assets of licensed banks formed 94.1%. This clearly makes the licensed banks the bulk of the financial system (Figure 4.1).

Figure 4.1: Total Assets of the Financial System (JD Billions)

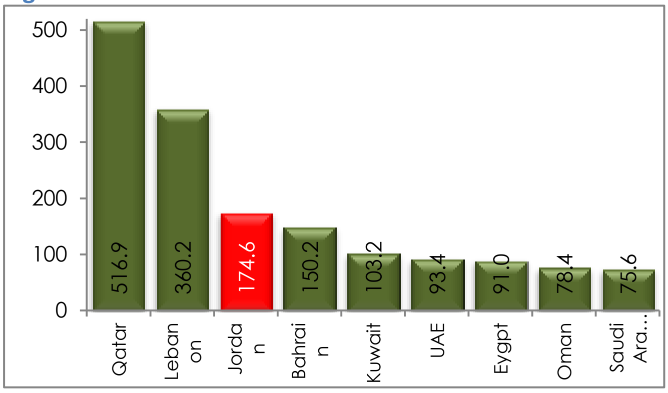


First: The Most Important Developments in the Banking System (Assets and Liabilities)

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 44.4billion at the end of 2014, forming 174.6% of GDP compared to 178.0% at the end of 2013 – the third highest ratio amongst selected Arab countries after Lebanon and Qatar (Figure 4.2).

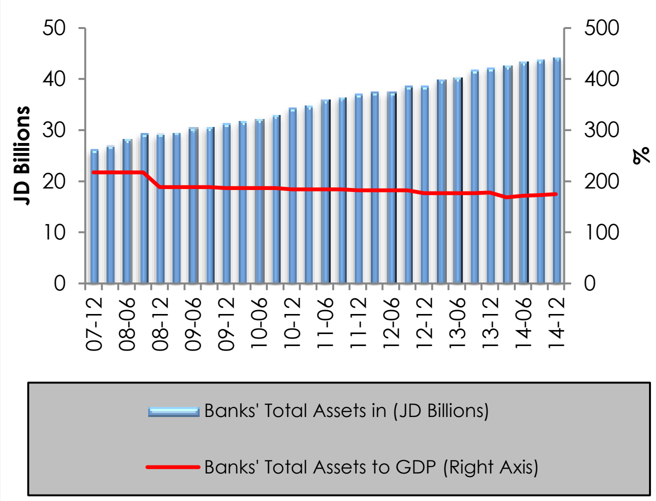
Figure 4.2: Banks' Total Assets to GDP for Jordan and Selected Arab Countries 2014



*Kuwait and Oman 2013 Data

Despite this high ratio in Jordan, it followed a declining trend during the last eight years. It reached 217.2% at the end of 2007 and decreased to 174.6% at the end of 2014. The reason for this trend is attributed to the growth of GDP at higher rates than the growth of banks' assets (Figure 4.3).

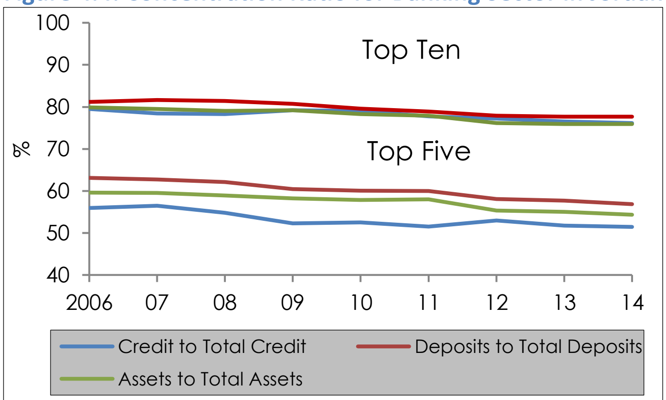
Figure 4.3: Evolution of Operating Banks' Assets in Jordan and Its Ratio to GDP (2007-2014)



Source: Central Bank of Jordan

Regarding the market share for banks (concentration), the assets of the largest five banks out of 25 banks approximated 54.0% of total assets of the licensed banks at the end of 2014. Whereas the assets of the largest ten banks out of 25 banks approximated 75.9% of total assets of the licensed banks at the end of 2014. 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 4.4). Despite this, the concentration in the banking sector in Jordan is relatively high.

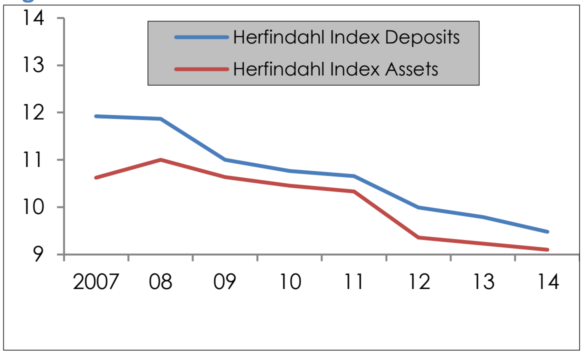
Figure 4.4: Concentration Ratio for Banking Sector in Jordan for Top Five and Top Ten Banks (2006-2014)(%)



Source: Central Bank of Jordan

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 9.5% at the end of 2014, lower than its level at the end of 2013 of 9.8%. 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 4.5).

Figure 4.5: Herfindahl Index for Banks Assets and Deposits in Jordan (2007-2014)

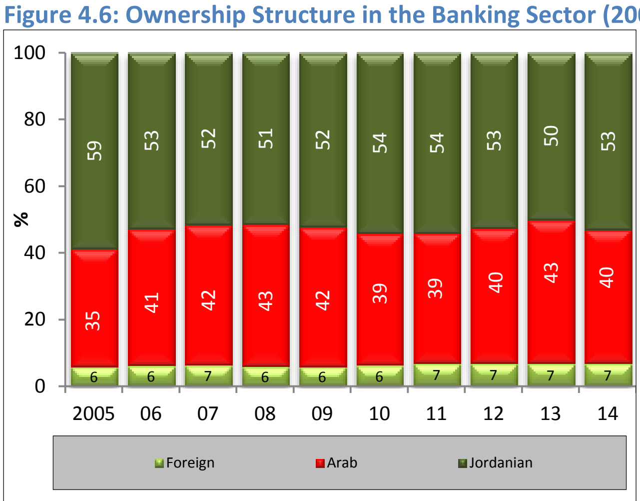


Source: Central Bank of Jordan

Ownership Structure in Banks

The capital share of foreigners in the total capital of licensed banks approximated 47.0% at the end of 2014. This foreigners' ownerships share is considered 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 4.6).

Figure 4.6: Ownership Structure in the Banking Sector (2005-2014)

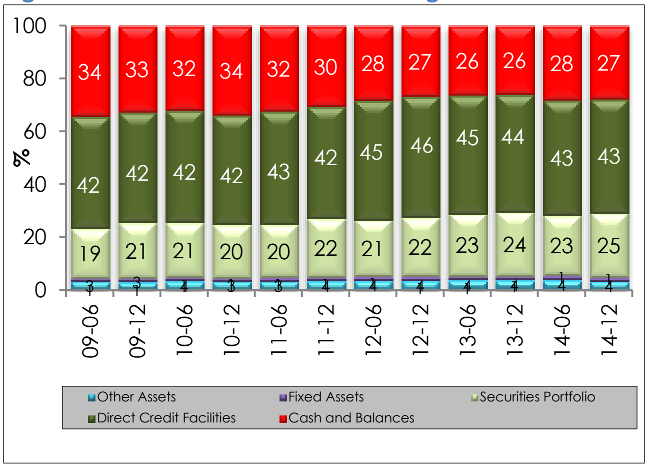


Source: Central Bank of Jordan

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 JD19.2 billion at the end of 2014, composing about 43.2% of banks' total assets, compared to JD18.8 billion and 44.4% respectively at the end of 2013 (Figure 4.7).

Figure 4.7: Assets Structure for Banking Sector - Uses of Funds (2009-2014)

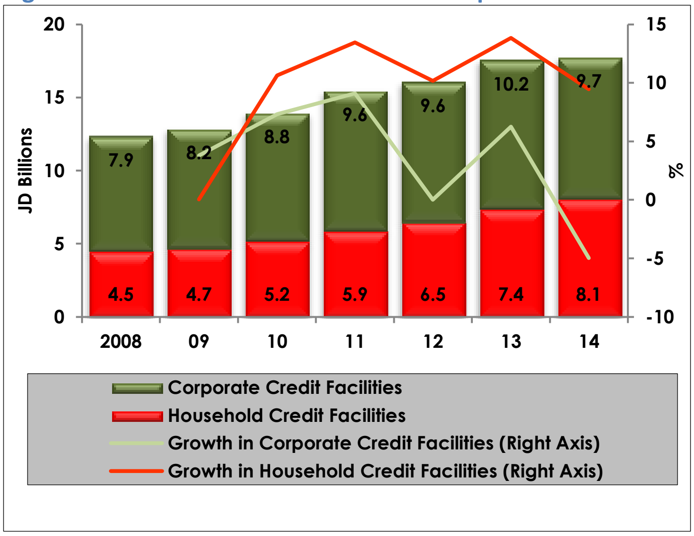


Source: Central Bank of Jordan

Regarding credit facilities granted to companies, they composed the major share of total credit facilities during the period (2008-2013) and approximated 44.8% on average. However, except for its increase in 2009 over 2008 (50.2%), the share witnessed a downward trend during the mentioned period, as it declined from 51.4% in 2009 to 41.7% in 2014.

On the other hand, the share of credit facilities granted to households (individuals and real estate) increased from 35.5% in 2009 to 41.8% in 2014. It is worth mentioning that the growth rate of the household credit facilities (individuals and real estate) approximated 9.5% at the end of 2013, while the growth rate of corporate facilities roughed5.0%. This means that there is a tendency in the banking sector to increase lending to households at the expense of corporate sector. 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 improving their living standards hence boosting economic activity. The contribution of household's sector in simulating economic growth is usually less than that of the corporate sector (Figure 4.8). The developments of indebtedness of household in Jordan are discussed later in this chapter in detail.

Figure 4.8: Evolution of Household and Corporate Credit Facilities (2008-2014)

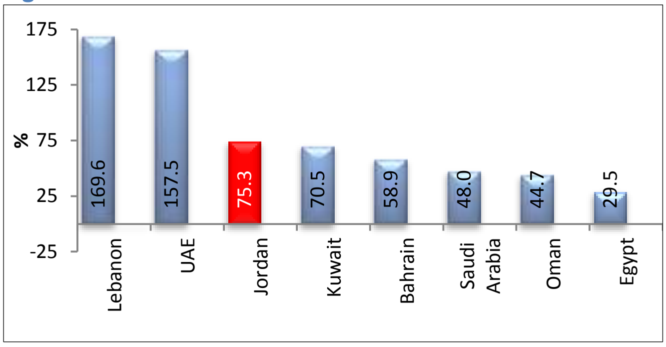


Source: Central Bank of Jordan

Credit facilities grew by 1.8% at the end of 2014 to reach about JD19.2 billion. Given that the growth rate in 2013 was 6.3%. The driving reason for the decline in the growth rate of credit facilities is the CBJ's decision to eliminate the international Murabaha transactions in JD effective 01-01-2014, as these transactions were classified as credit facilities. The balance of international Murabaha transactions in JD approximated JD569.0 billion at the end of 2013. Therefore, by removal of the impact of the international Murabaha transactions in JD on the growth of credit facilities – for the purpose of comparison with the previous years- it reaches4.8%, showing that the noticeable decline in the growth of credit facilities in 2014 relative to 2013 does not reflect an actual decline, but, rather a one that is caused by regulatory changes.

It is worth mentioning that the ratio of credit facilities to GDP approximated 75.3% at the end of 2014compared to 78.9% at the end of 2013. Despite the decline in this ratio in 2014, it is still considered high compared with several selected countries in the MENA region, among which Jordan ranked the third highest after Lebanon and United Arab Emirates (Figure 4.9).

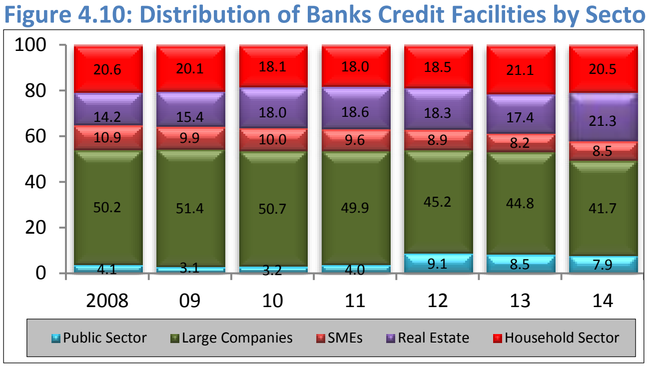
Figure 4.9: Credit Facilities to GDP for Jordan and Selected Arab Countries for 2014



Source: Central Bank of Jordan

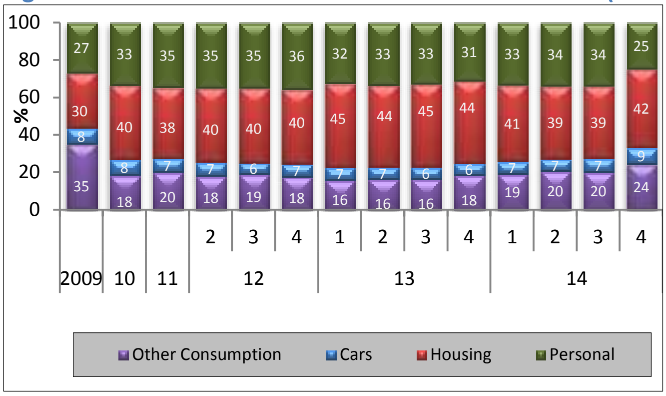
With regard to the distribution of credit facilities, as mentioned earlier, credit facilities extended to the large companies still account for the largest percentage of the total credit facilities, but followed a downward trend since 2010 where it was 50.7% and decreased to reach41.7% at the end of 2014. Whereas the facilities extended to the government and the public sector increased from 4.1 % in 2008 to 8.0% in 2014, recording a decrease from their counterparts in 2012 and 2013, when they reached 9.1% and 8.5% respectively. Concerning the credit facilities extended to the SMEs, they were relatively modest, and reached 8.5% at the end of 2014 compared to 10.9% at the end of 2008. Regarding household debt (including individuals and real estate) it composed about 41.8% of total credit facilities at the end of 2014 compared to 38.4% at the end of 2013 (Figure 4.10)

Figure 4.10: Distribution of Banks Credit Facilities by Sector (2008-2014)



With regard to credit extended to household sector, the largest share of the credit was in the form of household mortgage loans, which formed 41.9% of household debt at the end of 2014 compared to 44.1% at the end of 2013. The second largest share was for the personal advances that formed 24.7%% of total household debt at the end of 2014, compared to 31.0% at the end of 2013. Auto loans accounted for 9.0% at the end of 2014, compared to 6.5% at the end of 2013 (Figure 4.11).

Figure 4.11: Distribution of Household Credit Facilities (2009-2014)



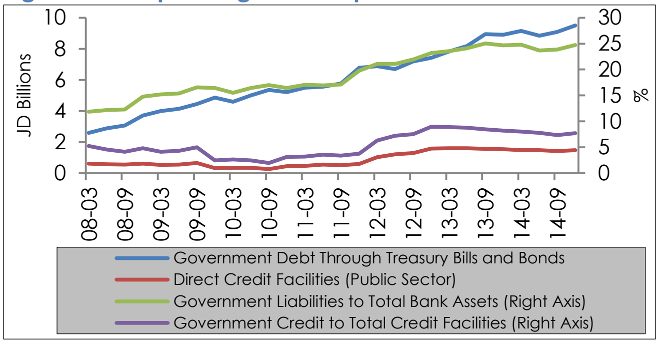
Data was reclassified in Q4 of 2014.
Source: Central Bank of Jordan

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 2014.

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 JD11.0 billion at the end of2014 accounting for 24.7% of the total banks' assets, compared to JD10.4 billion at the end of 2013, representing about 24.7% of the banks' total assets. It is worth mentioning that the amount for the year 2014consists of JD9.5 billion in the form of government bonds and JD1.5 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 11.8% at the end of 2008 to 24.7% at the end of 2013 and kept its share of 2013 in 2014 as the year 2014 and the first half of 2015 both witnessed a noticeable decline in crowding out of the private sector over domestic liquidity due to the improved economic conditions and the government decision to obtain financing from international markets through the issuance of dollar-denominated bonds (Figure 4.12).

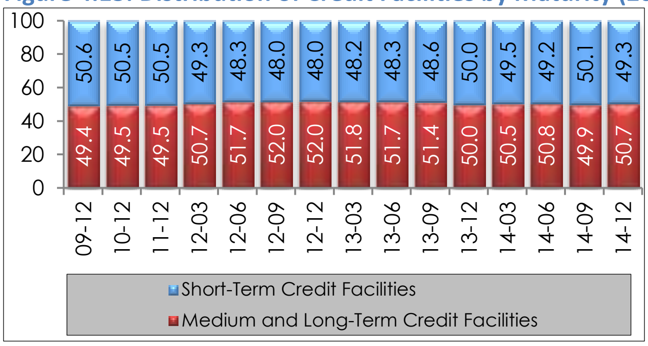
Figure 4.12: Operating Banks Exposure to Government Debt (2008-2014)



Source: Central Bank of Jordan

Regarding classification of the facilities by maturity, the short-term credit facilities (facilities that mature within one year) decreased from48.0%at the end of 2012 to reach 49.3% of total credit facilities at the end of 2014 and thus equated the share of medium and long-term credit facilities (credit facilities with a maturity of one year or more) that touched 50.7%. The high proportion of short-term credit facilities increases the matching with the maturities of deposits, thereby reducing the liquidity risk for banks (Figure 4.13).

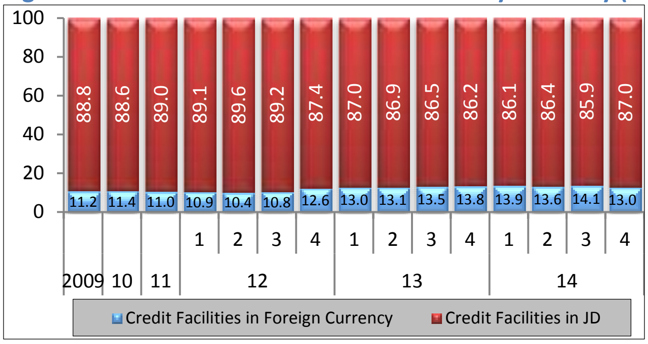
Figure 4.13: Distribution of Credit Facilities by Maturity (2009-2014)(%)



Source: Central Bank of Jordan

Regarding the classification of the facilities by currency, the facilities denominated in JDs are the major component of the credit facilities, composing approximately 87.0% of total credit facilities at the end of 2014, recording a slight increase from the proportion attained at the end of 2013 of 86.2%. It is worth mentioning that the low proportion of facilities denominated in foreign currency is mainly due to the restrictions imposed by the CBJ on the facilities extended in foreign currencies, which must be extended only to the sectors that raise income in foreign currency (Figure 4.14).

Figure 4.14: Distribution of Credit Facilities by Currency (2009-2014)(%)



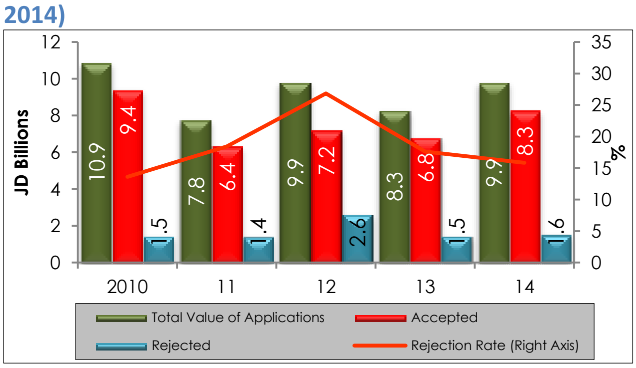
Source: Central Bank of Jordan

Demand for Credit

To measure the demand for credit, the CBJ prepared some studies that included a Memorandum on 28-09-2014 that requested banks to fill a questionnaire analyzing the demand for credit. The most important results of the studies are the following:

1. The number of applications submitted to the banks by households and companies for new facilities (applications by new customer in addition to the requests for increasing outstanding facilities) during 2014, about 327.7 thousand applications totaling JD9.9 billion. Of these, about 13.6% of the number of applications submitted totaling JD1.6 billion; accounting for 15.8% of the value of all submitted applications compared to a rate of 17.6% for 2013. Figure 4.15 reveals that this share has been declining since 2012.

Figure 4.15: Total Value of Credit Applications to Banks (Accepted, Rejected, and Rejection Rate) (2010-2014)

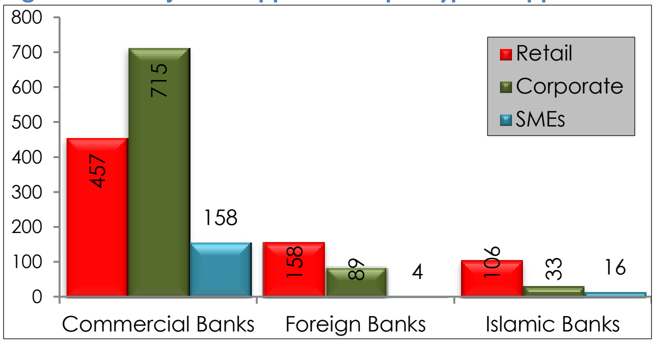


Source: Central Bank of Jordan

2. As shown in the figure, there was some improvement in the response of banks for demand for credit during 2013, 2014 reflecting the improvement in the economic situation relative to the period (2010-2012).

3. The highest rejection rate was for the applications submitted to foreign banks amounting 32.5% of total number of applications, approximating JD247.4 million composing 31.2% of total value, followed by the application to commercial banks and Islamic banks, that approximated 16.9% and 6.5% of total number.

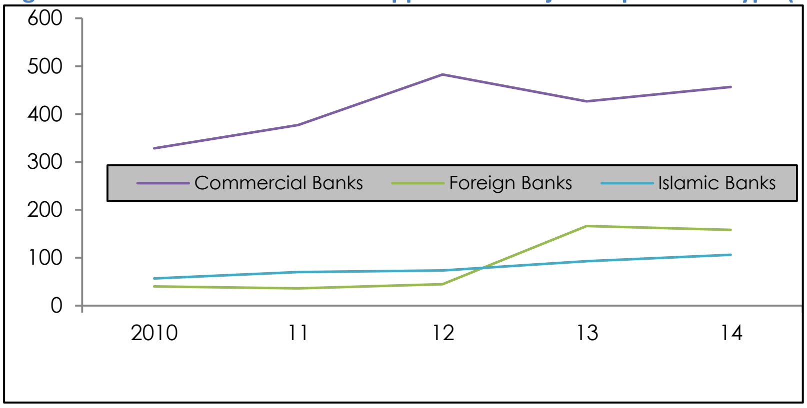
Figure 4.16: Rejected Applications per type of applicant and bank (2014)(JD Million)



Source: Central Bank of Jordan

4. 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 2014 reached about 313.7 thousand requests with a total value of JD3.911 billion. Of them, 13.8% were rejected amounting JD721.0 million composing 18.4% of total value. The highest rejection ratio was for applications submitted to foreign banks, that approximated 34.9%, compared to 19.0 and 10.1% for applications to commercial banks and Islamic banks respectively.

Figure 4.17:Value of Retail Credit Applications Rejected per Bank Type (2010-2014)(JD Million)

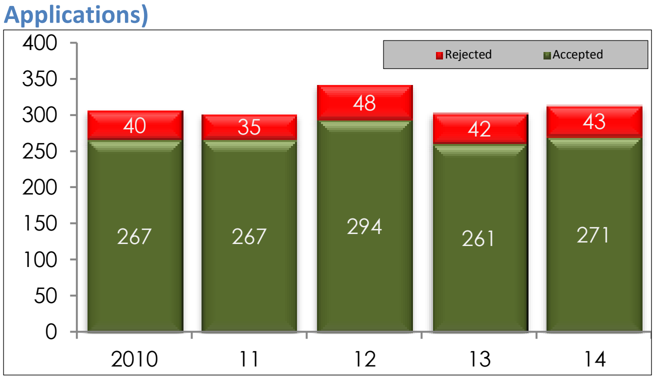


Source: Central Bank of Jordan

According to the study, the reasons for rejecting the household applications for credit facilities included:

- Insufficient collateral and the lack of guarantor
- Lack of income stability of income and / or the inability to formally document income stability
- Dormant account transactions and non-deposit of salary in the account
- The high DBR (that exceeds income coverage to the monthly premium)

Figure 4.18: Number of Accepted/Rejected Retail Applications submitted to Banks (2010-2014)(Thousand Applications)



Source: Central Bank of Jordan

Regarding credit facilities extended to companies (large, medium and small ones), the applications for obtaining new credit facilities (applications by new customers in addition to the requests for increasing outstanding facilities) during 2014 reached about 14.0 thousand applications; with a total value of JD5.946 billion. About 9.5% of them were rejected, totaling JD837.0 million composing 14.1% of total value. It is worth mentioning that the highest rejection ratio was for application to foreign banks, that approximated 26.3%, compared to 15.8% for applications to commercial banks. The percentage was very small for Islamic banks and reached only 3.0%.

According to the study, the reasons for rejecting the applications for credit facilities by the large, medium and small companies included:

- Weak financial position
- Mismatch between the requested credit facilities and the current or expected cash flow
- The unwillingness of the bank to expand its business with the companies
- The unclear objectives and reasons for requesting the credit, or the company is newly established
- The high risk of the company's sector or it is at least not being a company in a targeted sector by the bank

Figure 4.19: Value of Rejected Corporate Credit Applications by Type of Bank (2010-2014)(JD Billion)

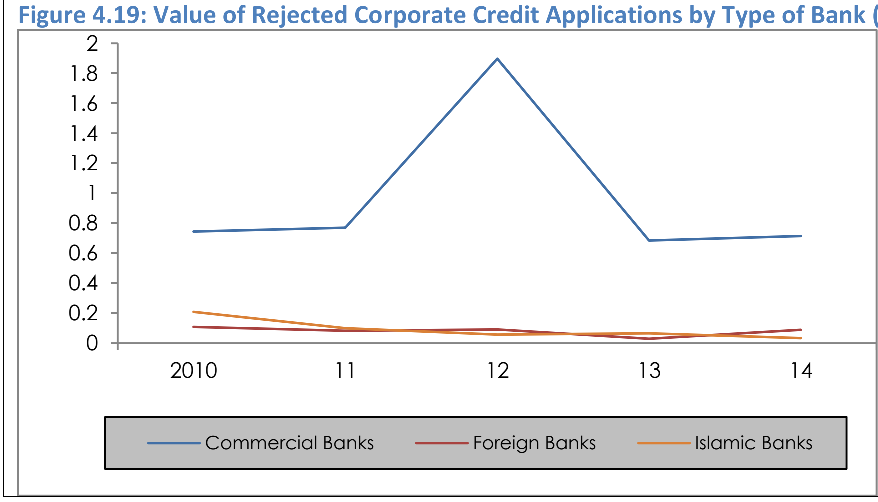
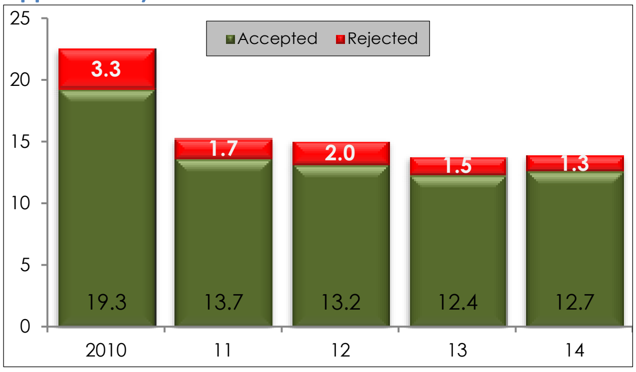


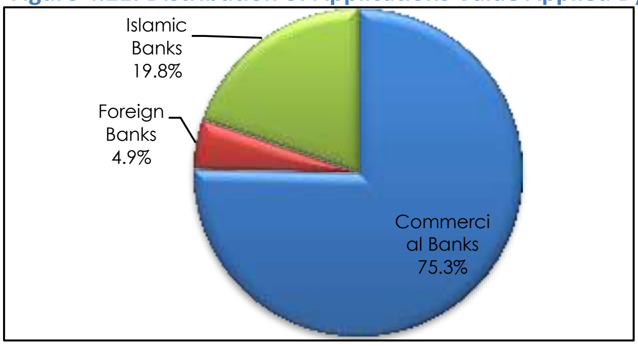
Figure 4.20: Number of Accepted/Rejected Corporate Credit Applications by banks(2010-2014))(Thousand Applications)



Source: Central Bank of Jordan

Regarding credit facilities to SMEs, the number of applications formed 75.6% 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 2014 reached about 10.6 thousand applications, with a total value of JD1.278 billion. Of them, 10.0% were rejected amounting JD177.0 million composing 13.9% of total value. The highest number of applications was to commercial banks, forming about 75.0% of total number of applications, followed by Islamic banks and foreign banks, composing 20.0% and 5.0% respectively.

Figure 4.21: Distribution of Applications Value Applied By SMEs per bank type (2014)(%)



Source: Central Bank of Jordan

It is worth mentioning that the highest rejection ratio was for applications to commercial banks, that approximated 16.4%, compared to 6.3% for applications to Islamic banks. The percentage was small for foreign banks and reached only 5.8%.

According to the study, the reasons for rejecting the applications for credit facilities by SMEs included:

- The bounced checks due to insufficient funds and the enlisting of the client on the list of bounced checks

- Non-compliance with the bank's credit policy with respect to of income, employer, length of service, and the age of the client
- The lack of commitment is paying the obligations and poor solvency
- The existence of arrears to the customer with the banking system
- The period between the outstanding loan and the requested one is less than a year, or the requested financing period is long
- The high turnover rate of work

The survey analysis results are as follows:

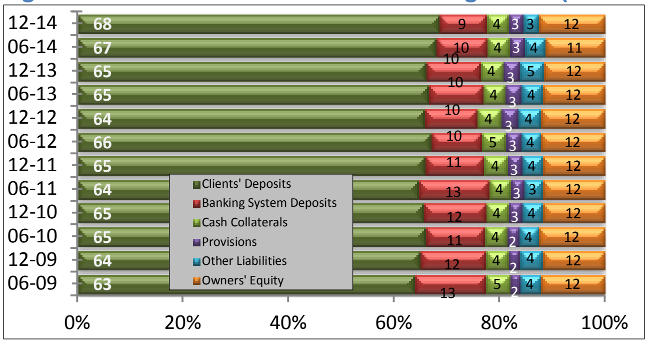
- The increase in the demand for credit facilities in all sectors at the end of 2014 slightly compared to the first half of 2014.
- The highest application percentage in 2014 was for the existing customers and the credit facilities extended to them
- The corporate, consumption and household credit facilities maintained the highest percentage of the total credit facilities extended and of the new applications for credit during 2014.
- Banks expect a slight surge in the number and value of applications for credit facilities during 2015.
- Banks simplified their standards for accepting credit applications for housing and retail loans. However, the credit approval standards for large projects, SMEs and short-term credit have not changed.

Therefore, it could be concluded that the banks' response for credit applications improved during 2013 and 2014 compared to the period (2010-2012) due to the improvement in the economic situation in Jordan, the increase in liquidity levels at banks and the decline in uncertainty that peaked during the global financial crisis and Arab Spring beginnings. It is also noted that the percentage of rejected application by foreign banks increased.

Sources of Funds (Liabilities)

Analyzing the sources of funds in the banking sector reveals that deposits represents the major source of funding, forming about 68.1% of total sources of funds as at the end of 2014. 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 4.22).

Figure 4.22: Liabilities Structure of Banking Sector (2009-2014)(%)

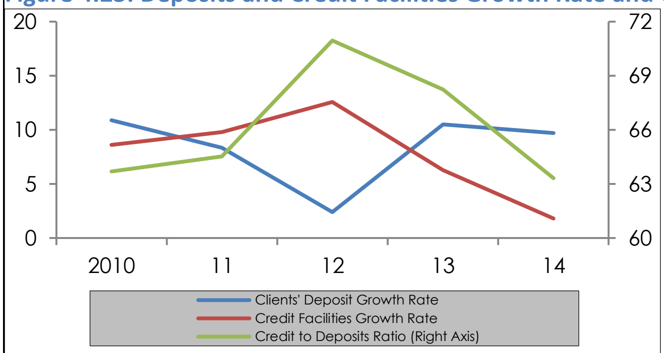


Source: Central Bank of Jordan

Regarding the evolution of deposits in the banking system, the clients' deposits increased by 9.7% at the end of 2014 to reach about JD30.3 billion, surpassing the growth in credit facilities at the end of 2014, which amounted to 1.8% nearly, implying that the volume of liquidity available to the banks in 2013 was relatively high. Regarding the second source of funds, shareholders' equity, it increased from JD3.0billion at the end of 2007 to JD5.6 billion at the end in 2014. Comparing shareholders' equity at licensed banks between 2013 and 2014, it has attained a growth by a rate of 14.1%. 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 to reach 8.9% of banks' sources of funds. Moreover, the ratio of credit facilities to deposits at the Jordanian banks rose from 65.0% at the end of 2009 to 70.9% at the end of 2012.I has since then declined to 63.3% at the end of 2014. This gives a positive indication on the improvement in the liquidity position of licensed banks in Jordan (Figure 4.23).

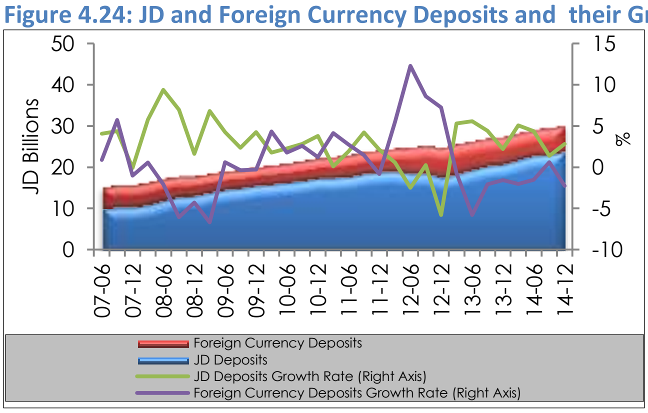
Figure 4.23: Deposits and Credit Facilities Growth Rate and Credit to Deposits Ratio (2010-2014)(%)



Source: Central Bank of Jordan

Regarding the structure of deposits in terms of currency, the JD-denominated deposits occupied the largest share of deposits. It reached 79.4% at the end of 2013. Analyzing the changes in the share of JD-denominated deposits in total deposits reveals that this share witnessed an evident increase in March 2007 and approximated 66.0% and touched 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 and 2014, 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 79.4%of total deposits at the end 2014, which reflects positively on enhancing the confidence in the Jordanian Dinar as a saving currency and enhances financial and monetary stability in Jordan (Figure 4.24).

Figure 4.24: JD and Foreign Currency Deposits and their Growth Rates (2007-2014)



Source: Central Bank of Jordan

Banking System Risks

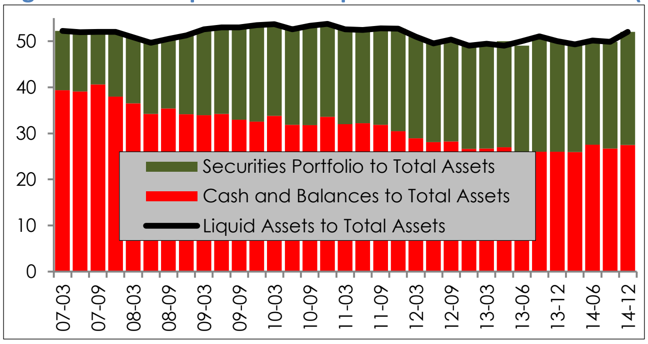
Financial Soundness Indicators

In spite of the successive repercussions of the global economic and financial crisis, besides 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.

Liquidity

Jordanian banking system enjoys a safe liquidity position. The liquidity ratios at the end of 2014 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 27.5%, while the share of securities portfolio (highly liquid) to total assets roughed24.5%. Consequently, the highly liquid assets composed about 52.0% of total assets at the end of 2014 compared to 50.0% at the end of 2013, reflecting a slight improvement in the level of banks' liquidity in 2014 (Figure 4.25).

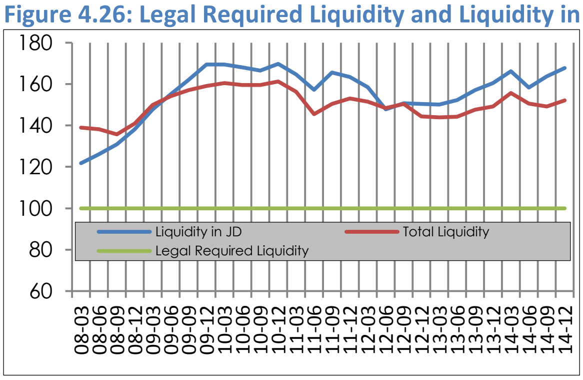
Figure 4.25: Components of Liquid Assets to Total Assets (2007-2014)(%)



Source: Central Bank of Jordan

Regarding legal liquidity ratio enforced by the CBJ on banks (a minimum of 100.0%), the ratio witnessed an increase in 2013 and 2014 to reach 149.0% and 152.2% respectively as a result of the substantial growth in deposits that exceeded the growth in credit facilities.

Figure 4.26: Legal Required Liquidity and Liquidity in JD (2008-2014)(%)



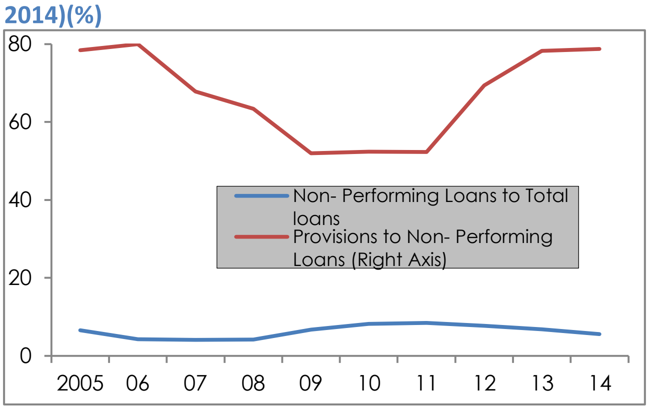
Source: Central Bank of Jordan

Asset Quality

Concerning the ratio of non-performing loans to total loans, it continued its downward trend at the end of 2014 to touch 5.6% compared to 7.7% and 6.8% at the end of 2012 and 2013respectively. This decline came as a result of the increase in credit facilities (denominator) and the decline in the size of non-performing loans (numerator). This decline 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. Besides, most of the clients who were negatively impacted by the repercussions of the global financial crisis defaulted during the period (2009-2011) and do not exist in the system. 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. This trend is attributed to the decline in the size of the non-performing loans and the increased attention of and banks on allocating a reasonable amount of provisions to face the NPLs (Figure 4.27).

Figure 4.27: Non-Performing Loans Ratio and Provisions to Non-Performing Loans (Coverage Ratio)(2005-2014)(%)



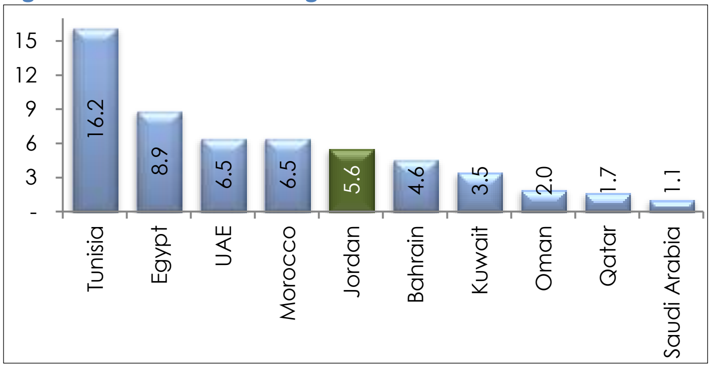
Source: Central Bank of Jordan

The balance of NPLs at the banking system reached JD1,405.4 million at the end of 2014, registering a decline from its counterpart amount at the end of 2013 by JD215.9 million. The balance of NPLs was JD1,621.3 million.

The comparison of the NPLs ratio in Jordan with some Arab countries reveals that Jordan occupied almost the middle rank amongst ten Arab countries, where it ranked fifth highest in terms of the non-performing loans ratio. The ratio was lower in

Jordan than Tunisia, Egypt, the UAE and Morocco, and higher than Bahrain, Kuwait, Oman, Qatar and Saudi Arabia (Figure 4.28).

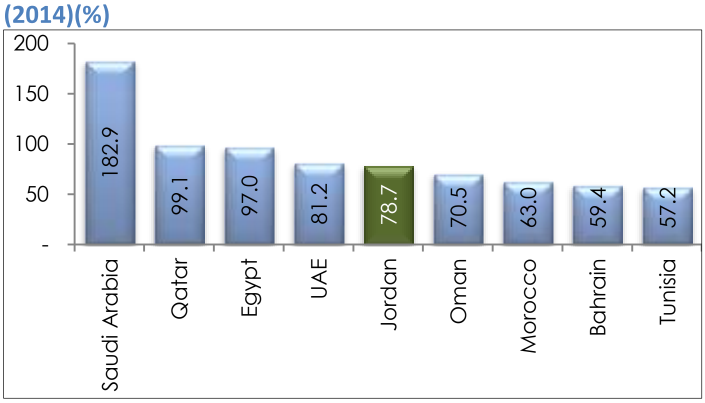
Figure 4.28: Non-Performing Loans to Total Loans for Jordan and Selected Arab Countries (2014)(%)



Source: Central Bank of Jordan

Regarding the coverage ratio of NPLs, the Jordanian banks ranked higher than Oman, Morocco, Bahrain and Tunisia, Lebanon, and lower than Saudi Arabia, Qatar, Egypt and UAE. This implies that this ratio in Jordan is relatively better that most of the Arab countries that are similar to Jordan in their economic characteristics (Figure 4.29).

Figure 4.29: Provisions Coverage Ratio for Non-performing Loans for Jordan and Selected Arab Countries (2014)(%)

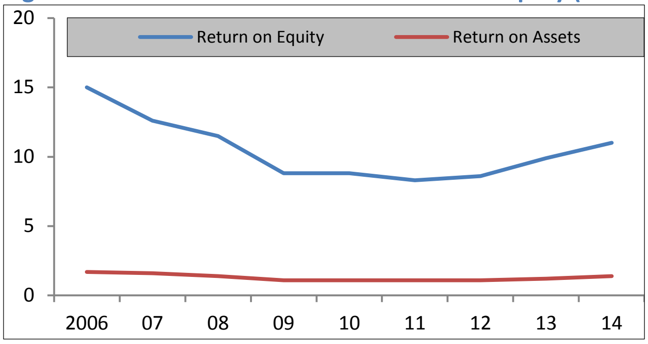


Source: Central Bank of Jordan

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 (Figure 4.30).

Figure 4.30: Return on Assets and Return on Equity (2006-2014)(%)

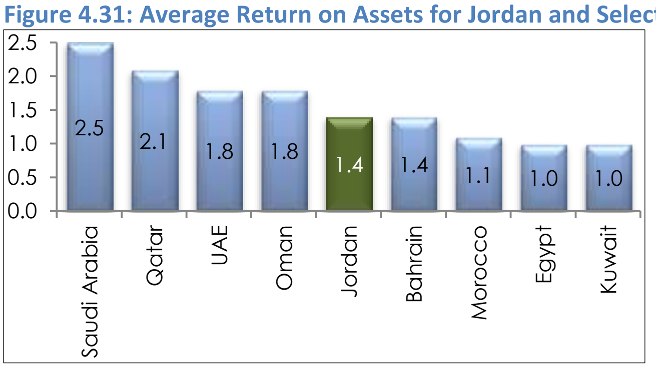


Source: Jordan: Central Bank of Jordan, Other countries: IMF.

Comparing Jordan with some Arab countries in this ratio reveals that Jordan's rank has relatively improved in 2014, as it ranked fifth among nine countries whose data are available compared to the sixth rank in 2013. Egypt and Kuwait were the lowest countries - among the selected countries, with a rate of return on assets of 1.0%, whereas Saudi Arabia had the highest rate of return on assets of 2.5% (Figure 4.31).

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 and 2013 to reach 8.6% and 9.9% respectively. It continued its upward trend at the end of 2014 and reached 11.0% (figure 4.31).

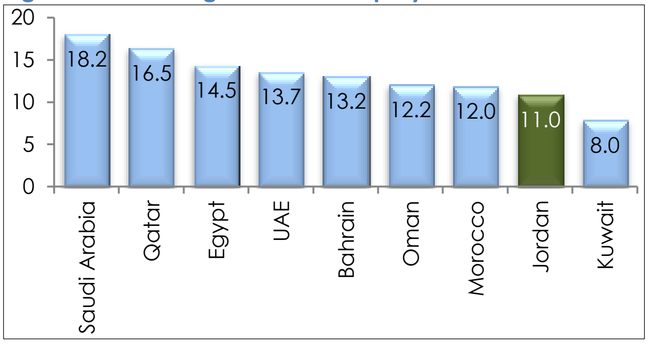
Figure 4.31: Average Return on Assets for Jordan and Selected Arab Countries (2014)(%)



Source: Jordan: Central Bank of Jordan, Other countries: IMF.

Despite the fact that the ROA for the banks in Jordan has noticeably improved during the years 2013 and 2014, it is still considered low relative to several Arab countries, as it occupied the second lowest rank in terms of the ROE after Kuwait, whose ratio was 8.0%, whereas Saudi Arabia had the highest rate of 18.2% (Figure 4.32). 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.

Figure 4.32: Average Return on Equity for Jordan and Selected Arab Countries for (2014)(%)

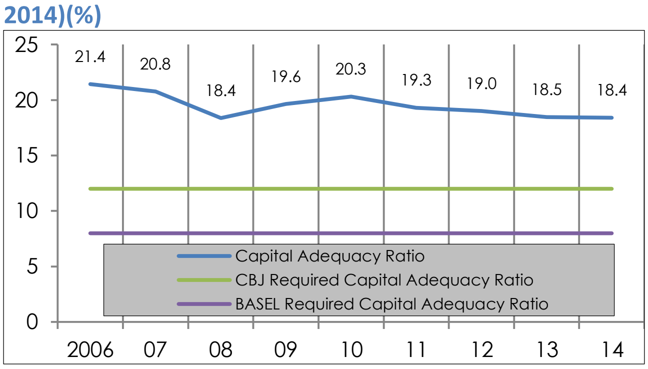


Source: Jordan: Central Bank of Jordan, Other countries: IMF.

Capital Adequacy

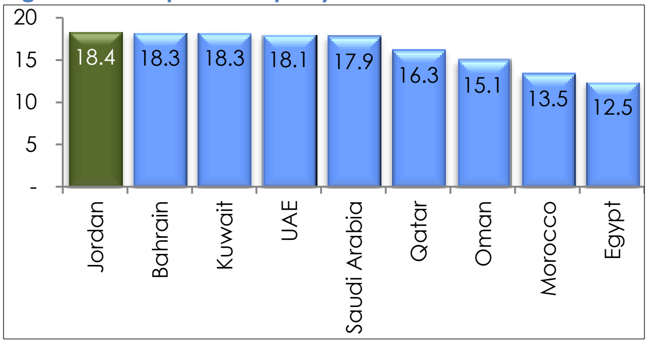
The banking system in Jordan has high capital adequacy ratio that is the highest in the MENA region (after the United Arab Emirates). Capital adequacy ratio (CAR) in the banking sector in Jordan ranged between 18.0% and 20.0% during the years 2007-2014. It is generally higher by a comfortable margin, than the limit set by the CBJ of 12.0% and the limit specified by Basel Committee of 8.0%. 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 4.33 and Figure 4.34).

Figure 4.33: Actual Capital Adequacy Ratio Compared with the Required by CBJ and BASEL Committee (2006-2014)(%)



Source: Central Bank of Jordan

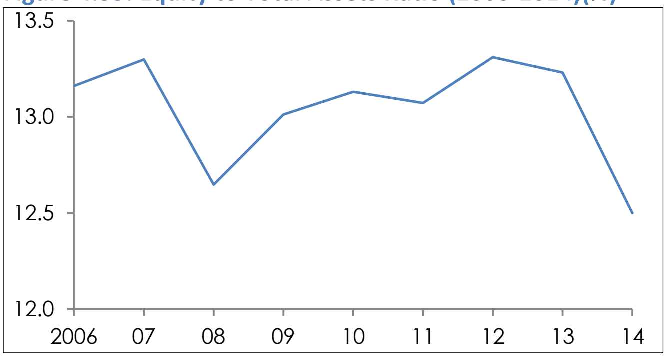
Figure 4.34: Capital Adequacy Ratio for Jordan and Selected Arab Countries for (2014)(%)



Source: Jordan: Central Bank of Jordan, 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 2014and reached13.2% and 12.5% respectively, which is a relatively high ratio compared to the minimum limit set by the CBJ of 6.0%. 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 4.35).

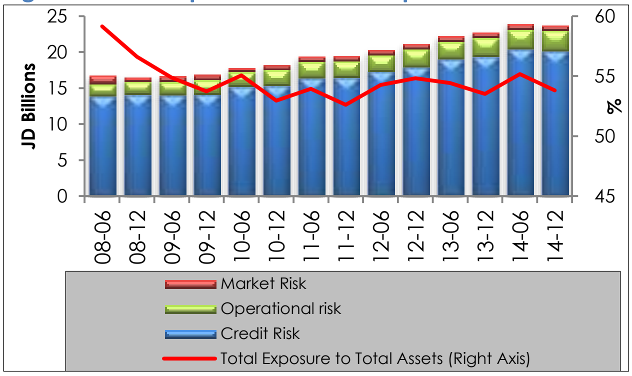
Figure 4.35: Equity to Total Assets Ratio (2006-2014)(%)



Source: Central Bank of Jordan

As for the main risks faced by banks, the credit risk is in the forefront of these risks and constituted 85.0% of total risks, followed by operational risk, which constituted 12.0% of total risk, and market risk, which constituted 3.0% of the total risk (Figure 4.36)

Figure 4.36: Components of Total Exposures in the Banking Sector (2008-2014)



Source: Central Bank of Jordan

Operational Efficiency

Cost-income ratio (CIR) is the most important ratio that measures operational efficiency of the banks. A study conducted by Mckinsey & Co Consultants Company showed that the banks whose CIR exceeds 55.0% suffered from operational efficiency weaknesses in terms of their ability to generate income while controlling expenses. Based on this study, a CIR number that is below55.0% gives a positive indicator of the operational efficiency of the banks.

The CIR for the banking system in Jordan approached 52.8% at the end of 2014, which is lower in 2014relative to the years 2012 and 2013 of 60.3% and 54.2% respectively. This movement in the CIR in 2013 and the preceding two years is an indication of the improvement in the level of banks' operational efficiency 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 2014 sustained by the increase in total income of the banks operating in the Jordan. 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 2014 and the rise in banks' income, all had a positive impact on banks' operational efficiency.

The decline in the CIR enhances the banks' ability to control expenses and sustain profitability. This was the case for the banking system as a whole. On the individual level, there were evident variations between banks in operational efficiency, where the CIR ranged between 55.0% and 60.0% for five banks, exceeded 60.0% for six banks, and was less than 55.0 % for 14 banks. This means that about 56.0% of banks in Jordan enjoy a good level of operational efficiency relatively.

Assets

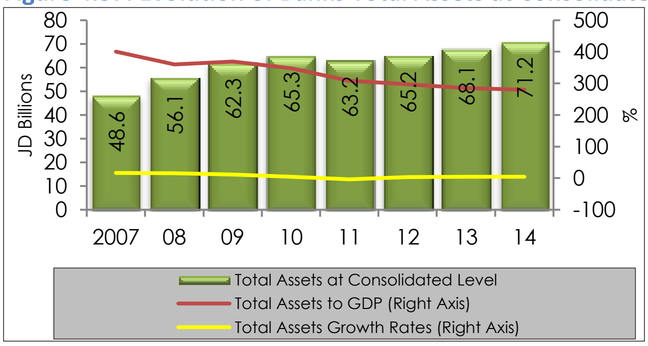
The number of Jordanian banks that have affiliations outside Jordan is nine, with the major being for Arab Bank, whose assets outside Jordan formed about 74.0% of total assets.

The total assets of the banking system on the consolidated level approximated JD71.2 billion at the end of 2014, compared to JD68.1 billion at the end of 2013, attaining an increase of JD3.2 billion or 4.7% growth rate. The banking system's assets inside Jordan formed about 62.4% of total assets on the consolidated level; the remaining percentage is mostly for affiliations of the Arab Bank outside Jordan.

Despite the increase in the banking system assets on the consolidated level fromJD48.6 billion at the end of 2007 to JD71.2 billion at the end of 2014, the growth rate of these assets followed a clear downward trend as it declined from 17.0% approximately at the end of 2007 to 4.7% at the end of 2013 (Figure 4.27). This result is 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 280.0% at the end of 2014, compared to 285.3% at the end of 2013. 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 (Figure 4.37).

Figure 4.37: Evolution of Banks Total Assets at Consolidated Level and It's Ratio to GDP (2007-2014)

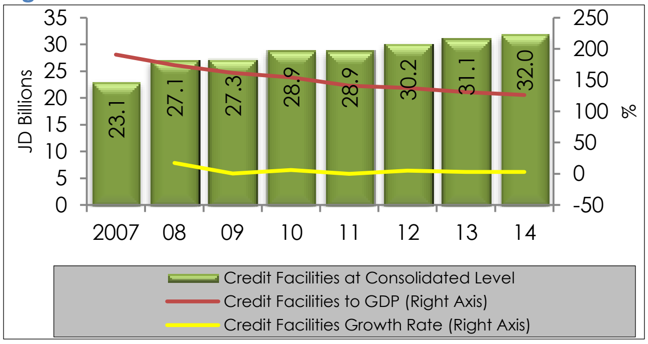


Source: Central Bank of Jordan

Credit Facilities

The balance of credit facilities on of the banking system on the consolidated level approximatedJD32.0 billion at the end of 2014, compared to about JD31.1 billion at the end of 2013, or a growth of 2.8%. Realizing the trend of the growth in credit facilities during the period (2008-2014), it is noticed that it followed a downward trend since 2008, as it declined from 17.3% at the end of 2008 to 2.8% at the end of 2014. Regarding the ratio of credit facilities of the banking system on the consolidated level to GDP, it declined from 190.7% at the end of 2007 to 125.9% at the end of 2014. This declining trend in the last six years is attributed to the repercussions of the global financial crisis, the euro sovereign debt crisis and the instability in the MENA region on the Jordan banks' branches located outside Jordan (Figure 4.38).

Figure 4.38: Evolution of Banks Credit Facilities at Consolidated Level and It's Ratio to GDP (2007-2014)

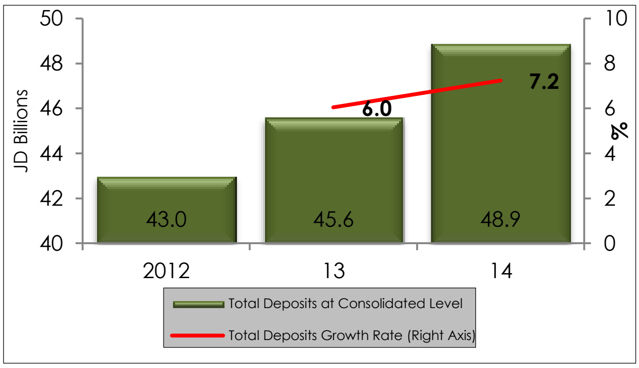


Source: Central Bank of Jordan

Deposits

Clients' deposits in the banking system at the consolidated level reached JD48.9 billion at the end of 2014, attaining a Y-o-Y growth rate of 7.2%% from 2013 (Figure 4.39).

Figure 4.39: Evolution of Deposits at Consolidated Level and It's Ratio to GDP (2012-2014)

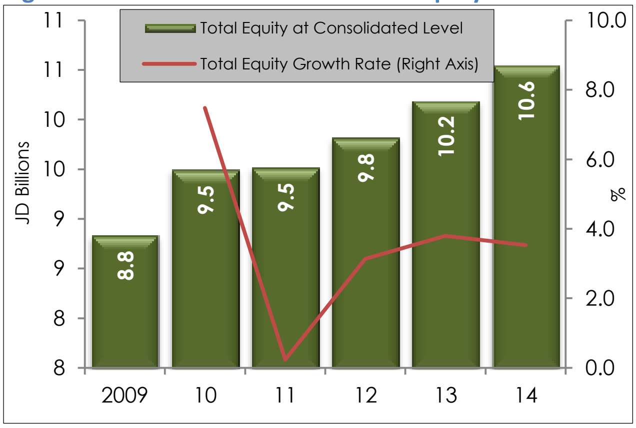


Source: Central Bank of Jordan

Shareholders' Equity

The shareholders' equity at the banking system on the consolidated level reached JD10.6 billion at the end of 2014, compared to JD10.2 billion at the end of 2013. It is worth mentioning that the balance of shareholders' equity followed an upward trend since 2009. This reflected positively on banks' solvency and capacity to confront risks and, hence, enhanced financial stability (Figure 4.40).

Figure 4.40: Evolution of Banks Total Equity at Consolidated Level and It's Ratio to GDP (2009-2014)



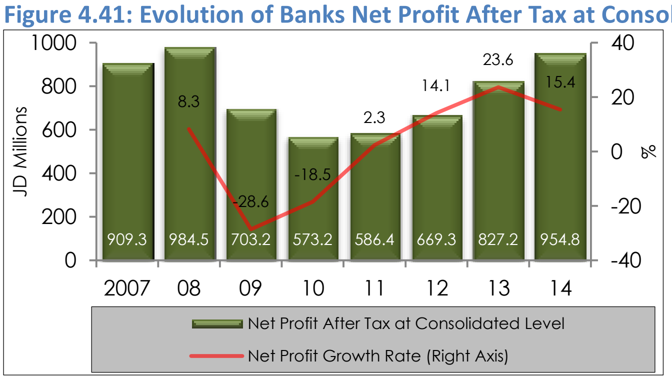
Source: Central Bank of Jordan

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

Net after-tax profit

Net after-tax profit with the banking system at the consolidated level at the end of 2014roughedJD954.8 million, compared withJD827.2 million at the end of 2013; a growth rate of 15.4%. It is worth mentioning that the net after-tax profit followed a downward trend in 2009 and 2010 as a result of the global financial crisis, but returned to take an upward trend during the years 2011 through 2014 (Figure 4.41).

Figure 4.41: Evolution of Banks Net Profit After Tax at Consolidated Level and It's Ratio to GDP (2007-2014)



Source: Central Bank of Jordan

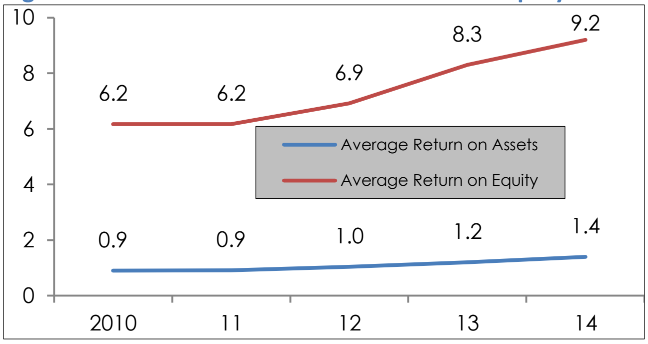
Return on Assets

The ROA in the banking system at the consolidated level was 1.4% at the end of 2014, compared with 1.0% and 1.1% in 2012 and 2013 respectively (Figure 4.42).

Return on Equity

The ROE in the banking system at the consolidated level reached9.2% at the end of 2014, compared with 6.9% and 8.3% in 2012 and 2013 respectively (Figure 4.42).

Figure 4.42: Return on Assets and Return on Equity at Consolidated Level (2010-2014)(%)



Source: Central Bank of Jordan

Second: Developments in Non-Bank Financial Institutions Sector

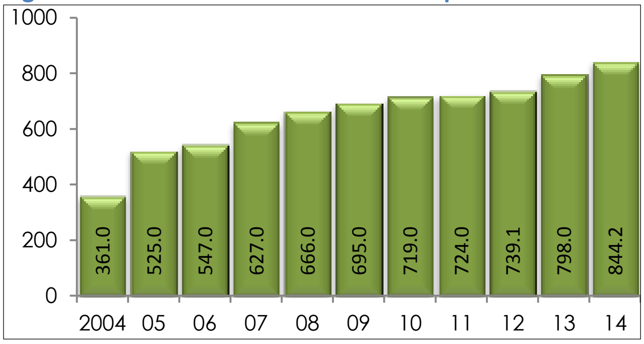
Insurance Sector[6]

Insurance sector is one of the main 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 2.08% at the end of 2014.

The number of insurance companies operating in Jordan is 25 companies, including one licensed life insurance company; nine companies are licensed to practice general insurance business and 15 companies are licensed to practice both types of insurance business (general insurance and life insurance), in addition to 917 agents offering insurance services support, including insurance agents, insurance brokers, re-insurance brokers, loss settlement specialists, insurance consultants, actuarial consultants, insurance business management companies, and business banking insurance. Total assets of insurance companies in Jordan approximated JD844.2 million at the end of 2014, compared to JD798.0 million at the end of 2013; a growth rate of 5.8% (Figure 4.43).

[6]The data related to the insurance sector in this section are preliminary.

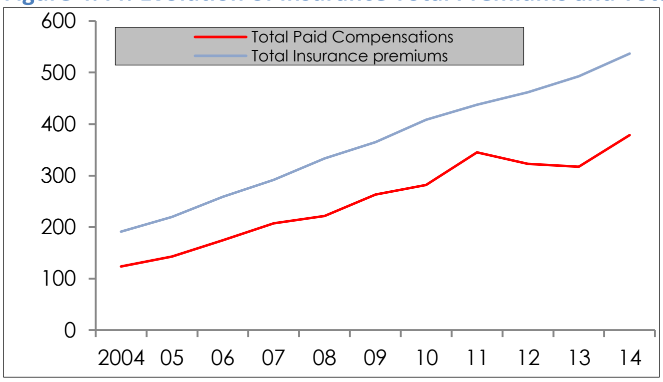
Figure 4.43: Evolution of Insurance Companies Total Assets (2004-2014)(JD Millions)



Source: Insurance Companies Preliminary Financials

Preliminary data shows that the total premium payments inside Jordan reachedJD537.0 million nearly at the end of 2014, compared to JD492.5 million at the end of 2013, at a Y-o-Y growth of 9.0%. Moreover, the total compensation paid increased from JD317.1 million at the end of 2013 to JD378.8 million at the end of 2014; growing by 19.5% (Figure 4.44).

Figure 4.44: Evolution of Insurance Total Premiums and Total Paid Compensations (2009-2014)(JD Millions)



Source: Insurance Companies Preliminary Financials

Concerning the outcome of the insurance companies business, the 2014 data shows that the insurance sector attained a net before-tax profit of JD32.3 million compared to JD19.5 million at the end of 2013. Moreover, insurance companies achieved an increase in equity form JD317.0 million at the end of 2013 to JD331.5 million at the end of 2014.

Table 4.1: Insurance Sector Developments (2009-2013) (JD Million)

	2010	2011	2012	2013	2014
Total investments	474	455	471	499	528.1
Total Assets	719	724	739	798	844.2
Equity	352	315	311	317	331.5

Total premiums written in Jordan	408.6	437.4	461.7	492.5	537
Total compensation of premiums written in Jordan	282.1	344.9	323	317.1	378.8
Paid-In Capital	296	295	280	281.3	268.3
Net profit before tax	11	0.2-	8.6	19.5	32.3

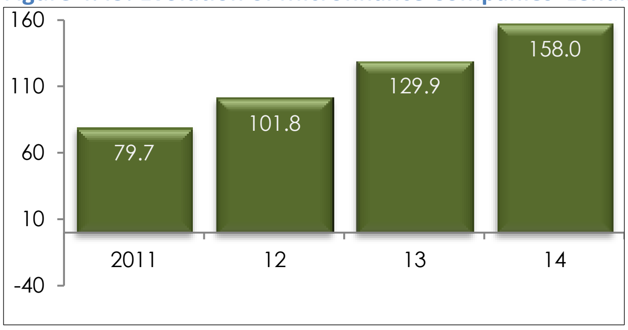
Source: Data for the period (2010-2013) is obtained from Jordan Insurance Report. 2014 Data are obtained from preliminary financials for the insurance companies.

Microfinance Sector

Microfinance sector started its business in Jordan since 1994 and grew rapidly in last few years. Microfinance loans achieved promising growth rates during the past three years (2012-2014) and roughed27.8%, 27.6% and 21.6% respectively. These high growth rates are a clear indication of the size of the demand for the products and services of the microfinance industry that (Figure 4.45).

The total loan portfolio of the microfinance companies approximated JD158.0 million at the end of 2014 compared to JD130.0 million at the end of 2013. The number of borrowers reached 339,180 borrowers at the end of 2014 compared to 294,924 borrowers at the end of 2013 at a growth rate of 15.0%. Moreover, the average value of loans increased from JD412.0 at the end of 2013 to JD448.0 at the end of 2014, at a growth rate of 8.8%.

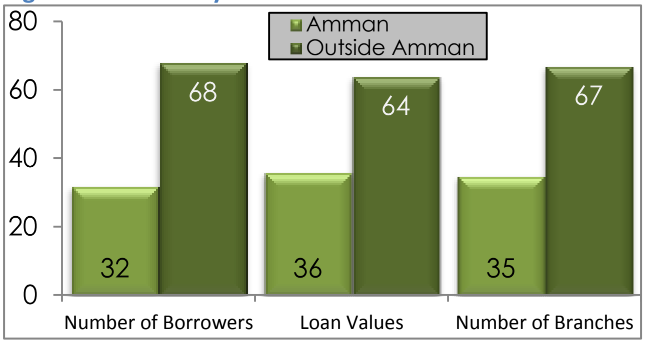
Figure 4.45: Evolution of Microfinance Companies' Lending Portfolio(2011-2014)(JD Millions)



Source: Central Bank of Jordan

Microfinance institutions target their services to the borrowers from outside the Capital Amman in as a contribution in social and economic developments across Jordan. They also target woman group to help in woman-empowerment efforts and enhance women's contribution in the economy and society.

Figure 4.46: Activity of Microfinance Sector Inside and Outside Amman (2014)(%)

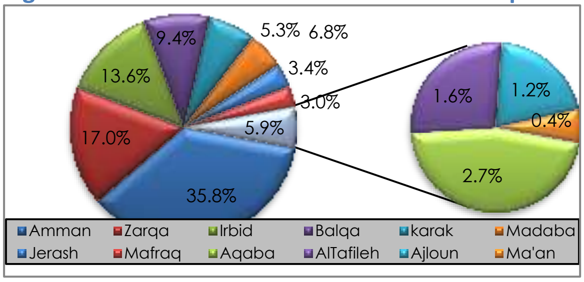


Source: 2014 Development Report

Regarding the geographic distribution of loans, 2014 data show that 68.0% of borrowers, 64.0% of total loan values and 67.0% of microfinance institutions are located outside the Capital Amman (Figure 4.46). The number of borrowers inside Amman grew by 9.0% in 2014 relative to 2013, whereas the same figure for borrowers from outside the Amman was 18.0%.

In this regard, the Amman occupied the largest share of loans of 35.8%, followed by Zarqa, Irbid and Balqa with shares of 17.0%, 13.6% and 9.4% respectively – as per 2014 data (Figure 4.47).

Figure 4.47: Distribution of Microfinance Companies Loans Value By Governorates (2014)(%)



Source: 2014 Development Report and Central Bank of Jordan Accounts

Financial Leasing Institutions

Total assets of leasing companies in Jordan approximated JD271.3 million at the end of 2014,[7] compared to JD249.1 million at the end of 2013, representing a growth rate of 8.9%. Shareholders' equity increased at the end of 2014 to reach JD184.8 million, compared to JD174.2 million in 2013.Concerning the business outcome of the leasing companies in Jordan, the ROE went down from 7.8% at the end of 2013 to

[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.

7.5% at the end of 2014. ROA decreased as well from 5.3% at the end of 2013 to 5.1% at the end of 2014 (Table 4.2).

Table 4.2: Financial Leasing Institutions Developments (2013-2014) (JD Million)*

	2013	2014
Revenues	24.4	26.5
Paid-In Capital	100.0	101.0
Assets	249.1	271.3
Shareholders' Equity	174.2	184.8
After-Tax Profit	12.7	13.4
ROE (%)	7.79	7.45
ROA (%)	5.28	5.14

* Unless otherwise indicated.
Source: (1) Preliminary financials of financial leasing companies affiliated with banks for the years 2013 and 2014. (2) CBJ Calculations.

It is worth mentioning that the number of financial leasing companies reached 30 companies in 2014, including eight subsidiaries of banks that accounted for the bulk of the financial leasing activity in Jordan.

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 reached143 companies operate through headquarters, in addition to 131 branches that are distributed across all governorates in Jordan - a total of 274 exchange entities as at the end of 2014

The Currency Exchange Law number 26 of the year 1992 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 4.3: Foreign Exchange Companies and Their Branches (2014)(Count)

Governorate	Companies	Branches	Total
Capital	94	85	179
Zarqa	13	11	24
Irbid	8	10	18
Aqaba	7	8	15
Other Governorates	21	17	38
Total	143	131	274

In light of the passage of more than twenty years since the issuance of the said law and the economic changes and the remarkable development in the activities of exchange companies and the diversity of offered currency exchange services, and in order to provide an appropriate capital base to increase the solvency of exchange companies and protect the dealers, the minimum capital of licensed exchange companies decided under the law has been amended and raised by 200% above the minimum level that was set before. According to gradual procedures, geographical locations of these companies were taken into consideration for the purpose of enhancing the safety and soundness of the currency exchange sector and strengthening the ability of exchange companies to compete locally, regionally, and internationally to offer exchange services of high quality to keep pace with the latest international developments in this field, in addition to increasing the amount of liquidity available to these companies to enhance their ability to improve their performance, and, hence, reflect positively on the profitability indicators of the exchange sector as a whole ultimately.

Table 4.4: Selected Indicators for the Currency Exchange Sector in 2013 (JD Million)*

Indicator	JD Million
Business size	169.7
Capital	80.4
Financial guarantees offered	25.5
Purchase of foreign currency	6181
Sales of foreign currency	6190
Return on capital (%)	4.4%
Return on assets (%)	2.1%

* 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-ground 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.

Social Security Corporation

The social security corporation (SSC) has a major contribution in the society as the social security umbrella includes about 67.9% of employees in Jordan and 45,165 active firms, of which 60.0% are located inside the Capital Amman. It is worth mentioning that 98.9% of active firms subscribed to the SSC are private sector firms –

as revealed in the SSC annual report 2013. 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 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 25.6% of GDP in 2013.

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 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.

Table 4.5: Distribution of SSC Investment Portfolio

Portfolio	2014	Apr–15
Money Market Instruments	689.2	1,041.3
Securities	2,867.9	2,773.7
Loan	142.1	136.2
Investment in Stocks	2,131.9	2,011.1
Real Estate	397.8	425.9
Tourism	287.6	282.4
Foreign Investments	19.4	26.0

Source: the Social Security Investment Fund.

Given the importance of the role of the SSC in the 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 JD6.8 billion approximately at the end of 2014, compared to about JD6.1 billion at the end of 2013, registering a growth of

11.8% and by JD719.0 million. The SSIF also achieved a net profit of JD307.1 million at the end of 2014, compared to JD287.0 million at the end of 2013; an increase of JD20.1 million by 7.0%.

The SSIF investment portfolios are composed of seven main portfolios (Table 4.5). The SSIF's activities are spread over various economic activities, as the SSIF is the second largest buyer of treasury bills and bonds, government bonds and government-guaranteed bonds that are allocated between money-market portfolio (matures is 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 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 JD251.7 million as of June 2015, forming 8.3% of the capital of Jordanian banks (Table 4.6).

Table 6-4: Distribution of SSC Ownership in Jordanian Banks (June 2015)

Bank	Value (JD Million)	Share (%)
Jordan Kuwait Bank	21.04	21.04
Jordan Commercial Bank	19.84	19.84
Arab Bank PLC.	101.74	15.88
The 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	5.79
Bank al Etihad	5.83	5.30
Jordan Islamic Bank	6.56	4.37
Arab Jordan Investment Bank	6.12	4.08
Bank - ABC	2.26	2.05
Total	251.71	

Source: Securities Depository Center.

Chapter Five: Systemic Risk Assessment

Introduction

The global financial crisis proved that stability on the micro level for the institutions of the banking and financial system is a necessary but not a sufficient condition for curbing the risks of financial stability on the macro level, or, in other words, or cubing systemic risks. The systemic risk is defined as the risk that affects the financial system as a whole and is not confined to certain individual bank or financial institution. Examples of this risk are the exposure of banks and financial institutions to the high-indebted household sector, the exposure to real estate sector that usually witness high and continuous increases in prices, and the increasing gap between the growth of credit and the growth of GDP.

Therefore, the role of supervisory authorities is vital in identifying and monitoring these risks and picking the right policy tools to mitigate the accumulation of systemic risks and enhance the capacity of the financial system to confront them.

This chapter analyzes some major cases where systemic risks might materialize and the suitable macroprudential policy tools. These cases are:

- Exposure of banks and other financial institutions to household sector
- The suitability of growth of credit to economic activity
- Exposure of banks to stock market
- Exposure of banks to real estate market[8]

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 2014was calculated using the same methodology that was outlined in the JFSR for the years 2012 and 2013. Where the household debt 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

[8] This issue is analyzed in detail in Chapter Six.

microfinance sector, the public shareholding companies that extend loans and financial leasing companies.

Household Indebtedness to Banks and Other Non-Bank Financial Institutions

Table 5.1 shows the evolution of household debt with banks and non-bank financial institutions during the period (2011-2014). As shown in the table, the household debt rose from JD7,602.7 million at the end of 2013 compared to JD8,796.8 million at the end of 2013, at a growth rate of 15.7% compared to 9.1% at the end of 2012.

Table 5.1: Household Debt at Banks and Non-Banking Financial Institutions (2011-2014) (JD Million)*

Debt Household	2011	2012	2013	2014
Banking Sector	5,446.0	6,374.0	6,958.0	8,066.3
	(12.0)	(17.0)	(9.2)	(15.9)
Non-Banking Financial Institutions	540.5	593.2	644.7	730.5
	(7.9)	(9.8)	(8.7)	(13.3)
Total	5,986.5	6,967.2	7,602.7	8,796.8
	(11.6)	(16.4)	(9.1)	(15.7)

Source: CBJ. * Numbers in parenthesis are growth Y-o-Y growth rates in percent.

It can be noted from the previous table that household debt with banks (including housing debt) increased by JD1.1 billion approximately in 2014 at a rate of 15.9% relative to 2013, compared to about JD0.6 billion at the end of 2013 at a rate of 9.2% relative to 2012. The bulk of the increase was in the personal and housing loans. It is attributed partially to the easing of the terms and conditions for granting credit for such purposes as home purchase, consumption and targeting the household sector– as mentioned in Chapter Four. As for the details of the household debt with non-bank financial institutions, it increased from JD644.7 million at the end of 2013 to JD730.5 million at the end of 2014, at a growth rate of 13.3% at the end of 2014 compared to 8.7% at the end of 2013.Table 5.2 shows the details of this debt.

Table 5.2: Household Debt at Non-Banking Financial Institutions (2011-2014) (JD Million)*

	2011	2012	2013	2014
*Microfinance Institutions	79.5	101.8	122.9	158.0
**Companies Listed in ASE	78.3	89.6	99.8	111.8
Financial Leasing Companies	382.7	401.8	421.9	460.7
Total	540.5	593.2	644.7	730.5

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

Household Debt-to-Income Ratio

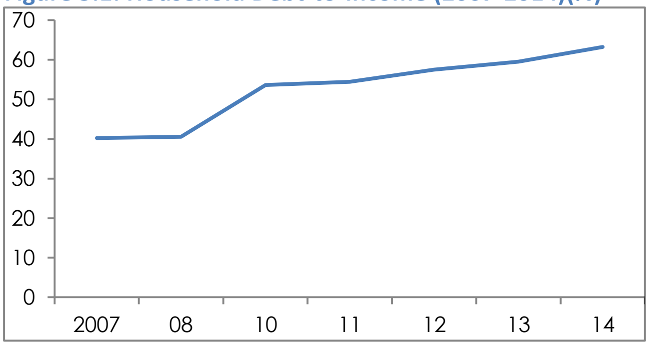
Table 5.3details the developments in the household debt to income ratio over the period (2008-2014). As appears in the table, the ratio witnessed a continuous increase along this period, as it increased from 40.5% at the end of 2008 to 63.2% at the end of 2014. The driver for this increase was the higher 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.

Table 5.3: HH Debt-to-Income Ratio (2008-2014) (JD Millions*)

Year	Household Debt	Household Income	HH Debt-to-Income Ratio (%)
2008	3,196.0	7,882.0	40.5
2010	5,364.5	10,008.0	53.6
2011	5,987.2	11,008.0	54.4
2012	6,967.3	12,109.0	57.5
2013	7,602.7	12,775.5	59.5
2014	8,796.8	13,924.8	63.2

* Unless otherwise indicated. Source: Central Bank of Jordan.

Figure 5.1: Household Debt-to-Income (2007-2014)(%)



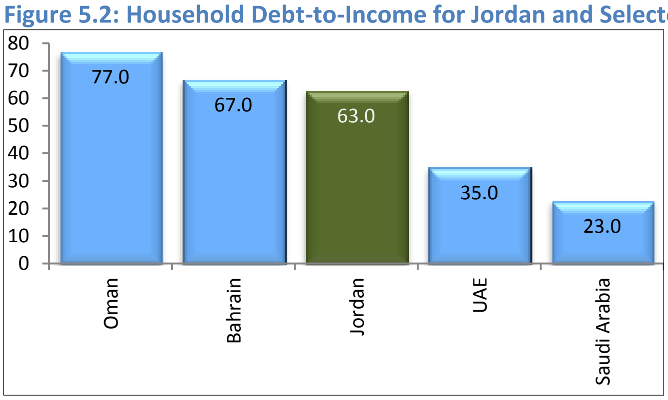
Source: Central Bank of Jordan

Household Debt for Selected Arab Countries

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

As depicted in Figure 5.2, the household debt-to-income ratio in the Sultanate of Oman and Bahrain is higher than its counterpart in Jordan, while it is lower in Saudi Arabia and the UAE.

Figure 5.2: Household Debt-to-Income for Jordan and Selected Arab Countries for (2014*)(%)



* Bahrain Ratio 2013

Regarding the proportion of credit facilities granted to households to total credit facilities granted by the banks in Jordan, the ratio is about 42.0%. Compared with the ratios in a number of Arab countries, this ratio is the highest in Jordan and exceeds its counterparts in the Sultanate of Oman, UAE and Saudi Arabia (Figure5.3). This signifies the increasing tendency of banks in Jordan in expanding their credit to household sector.

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, information was available about the household sector financial assets (deposits, shares and bonds). As shown in Table 5.4 and Figure 5.4, household debt-to-wealth followed an upward trend since 2010 - as was the case of household debt-to-income. However, it declined slightly at the end of 2013 and resumed the upward trend in 2014.

Figure 5.3: Proportion of Households Credit Facilities to Total Credit Facilities Granted by Banks of Selected Arab Countries for (2014)(%)

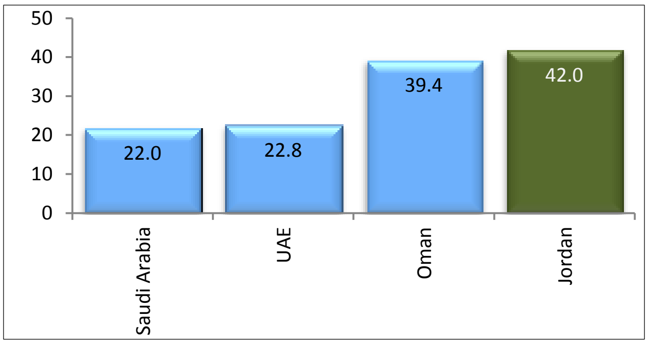
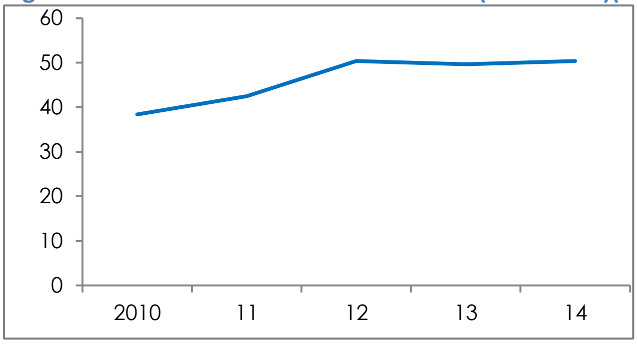


Table 5.4: Household Budget and Debt-to-Wealth (2010-2014)

Year	Assets*	Debt	Net Wealth	Debt-to-Wealth
2010	19,349.0	5,364.0	13,985.0	38.4
2011	20,092.0	5,987.0	14,105.0	42.4
2012	20,810.0	6,967.0	13,843.0	50.3
2013	22,923.0	7,602.0	15,321.0	49.6
2014	24,057.0	8,066.0	15,991.0	50.4

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

Figure 5.4: Household Debt-to-Net Wealth (2010-2014)(%)



Concluding Note about Household Debt

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.

The matching of the growth of credit extended to the financial sector with the economic activity in Jordan

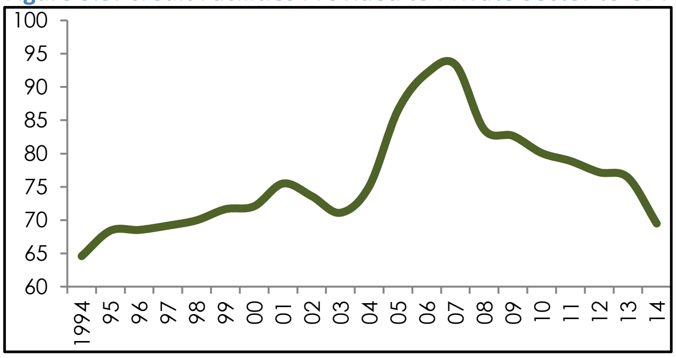
The consistency of the growth of credit extended by banks and financial institutions to the private sector with the size of economic activity is one of the major requirements for directing the credit to the productive economic sectors and controlling the concentration of credit in real estate and stock markets that in consequence increases its prices and might create a price bubble that might reflect eventually adversely on the whole financial system. In this regard, the ratio of private credit to GDP is considered one of the most important indicators and measures that are used to monitor the associated risks. The importance of this ratio was highlighted after the last global financial crisis. Upon which the central banks and economists in general were criticized for not linking the economic indicators with the financial indicators suitably when building their expectations about the occurrence or non-occurrence of crisis in the future. The importance of this ratio is that it measures systemic risks from a joint economic and financial prospective through investigating the harmony and consistency of the movements of two important indicators: private credit extended by banks and financial institutions and the GDP. The ratio is compared against its long-term trend.[9] This difference is called credit gap. Systemic risks exacerbate more the higher this ratio than its long-term trend with more than 2%.[10]

Credit-to-GDP Ratio and Credit Gap Analysis

The credit gap analysis revealed that the ratio of private credit to GDP does not signal the possibility of the accumulation of risk on the level of the financial system (systemic risks) in the current time.[11] As can be noted from Figure 5.5, this ratio as at the end of 2014 is below its historical trend by 14.5 percentage point. Therefore, the buffer add-on is zero and hence, there is no need to impose additional capital buffer on banks. This is not unexpected in light of the decline in the growth rates of private credit associated with low economic growth rates relatively compared to the period before the global financial crisis.

The credit-to-GDP ratio continued its downward trend since 2007 as it declined from 93.3% in 2007 to 69.5% at the end of 2014 (Figure 5.6).

Figure 5.5: Credit Facilities Provided to Private Sector to GDP and It's Historical Trend (Yearly)(1994-2014)(%)



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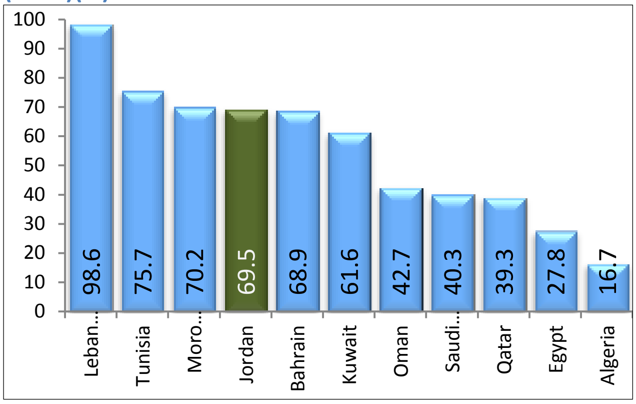
[9] Long-term trend is calculated using Hodrick Prescott Filter.

[10] Basel Committee prepared in 2010 a guide entitled "Guidance for National Authorities Operating the Countercyclical Capital Buffer" that explains the methodology to deal with systemic risks resulting from the high credit-to-GDP ratio. The committee invented a tool for this purpose called Counter-Cyclical Capital Buffer. The policy actions required depends on the value of this ratio in comparison with its long-term trend, conceptualized as **credit gap**:

- If credit gap < 2.0% then the buffer add-on is zero.
- If credit gap ≥ 2.0% & ≤ 10.0%, then an buffer add-on is required above the required capital by the banking system institutions such that 2.5% ≥ buffer add-on >0.0%
- If credit gap > 10.0% then the buffer add-on is at its maximum.

[11] The gap is measured using quarterly data.

Figure 5.6: Credit Facilities Provided to Private Sector to GDP For Jordan and Selected Arab Countries (2014)(%)



Comparing the ratio with selected Arab countries reveals that it is relatively high in Jordan in comparison with 11 countries as Jordan ranked fourth after Lebanon, Tunisia and Morocco (Figure 5.7). This is attributed to the large size of the banking system in Jordan in relation to the size of the economy.

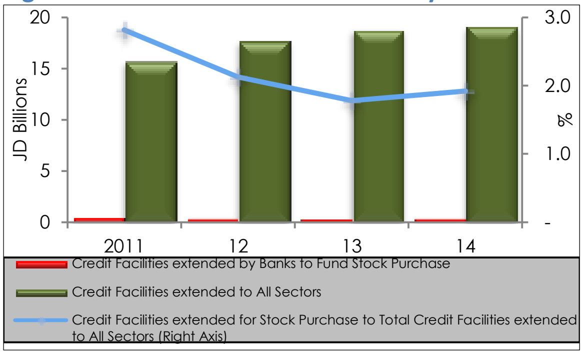
Banks' Exposure to Stock Market Risks

The importance of capital markets lies in its vital role in driving economic growth through attracting foreign investments and boosting national savings and availing the necessary funding to support the economy. Because of this role, the trends in this sector gained special interest especially after the global financial crisis through monitoring stock price bubbles and, hence, estimating the magnitude of risks in the stock market and the degree of exposure of banks to such risks. Regarding the exposure of banks to stock market in Jordan, it could take place in either or both of two channels: credit facilities extended by banks to fund the purchase of stocks and direct investment by banks in stock purchasing or guaranteeing. Next is an analysis of the degree of exposure of banks to stock market risks.

Credit Facilities Extended by Banks to Fund Stock Purchase

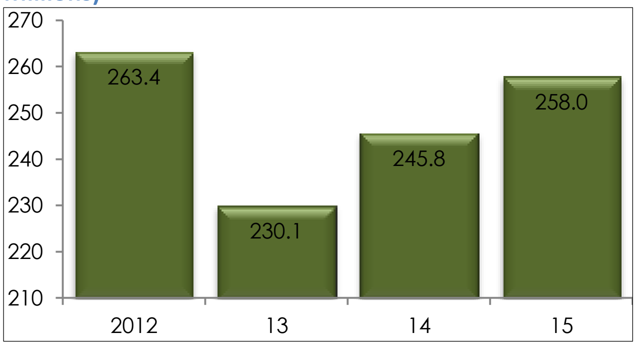
The credit facilities extended by banks to fund the purchase of stock market shares compose a very slight percentage of the total credit facilities extended by licensed banks. It reached JD367.8 million at the end of 2014, representing 1.9% of total credit facilities, compared to JD335.5 million at the end of 2013, a growth by 9.6%. It is worth mentioning in this regard that the credit facilities extended by banks to fund stock purchase followed a downward trend during the period (2011-2013) before shifting to the upward trend at the end of 2014.

Figure 5.7: Credit Facilities Extended by Banks to Fund Stock Purchase and to All Sectors (2011-2014)



The total credit facilities extended for various purposes against stock collaterals increased to JD245.8 million at the end of 2014 from JD230.1 million at the end of 2013 at a growth rate of 6.8%. This figure roughed JD258.0 million at the end of May 2015 (Figure 9.5).

Figure 5.8: Credit Facilities Provided for Various Purposes Against Stocks Collaterals (2012-2015*)(JD Millions)

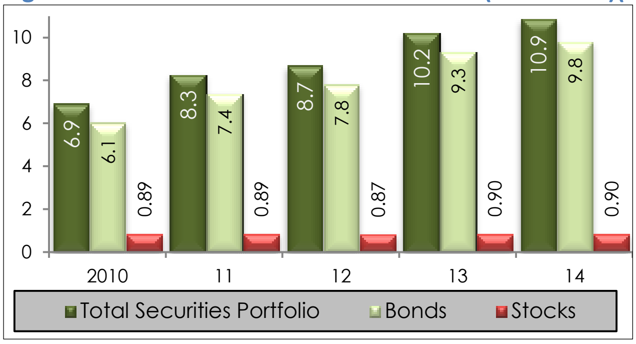


* 2015 figures are as of May.

Banks' Investments in Shares

The investment of banks in the financial portfolio reached JD10,888.9 billion at the end of 2014, compared to JD10,236.4 billion at the end of 2013, at a growth rate of 6.4%. These investments also formed 8.2% of total investments of banks in the financial portfolio, which is considered low relative to the investments in bonds that take the largest share of banks' investments in the financial portfolio, of which the majority is government bonds. The relatively low share of investments in stocks is attributed to two main reasons: the slowdown in the financial market and the limits enforced by Banks' Law and the CBJ's instructions regarding these investments.

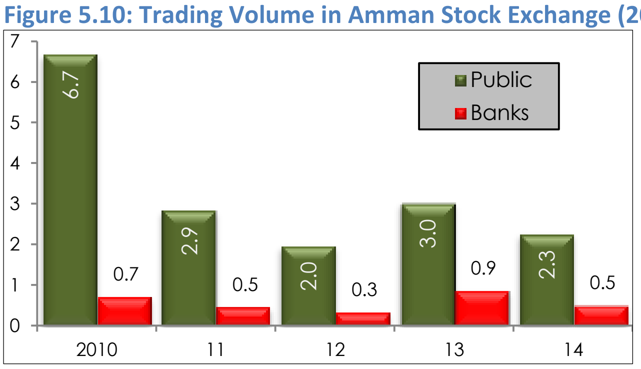
Figure 5.9: Banks' Total Securities Portfolio (2010-2014)(JD Billions)



Trading Volume in Amman Stock Exchange (ASE)

The trading volume in ASE declined from JD3,027.3 million at the end of 2013 to JD2,263.4 at the end of 2014, registering a decline by 25.2%. The banking sector had the largest portion of total trading relative to the other sectors, whose share formed 22.3% at the end of 2014. Trading volume of the banking sector reached JD504.4 million at the end of 2014, compared to JD336.1 million and JD866.0 million at the end of 2012 and 2013 respectively.

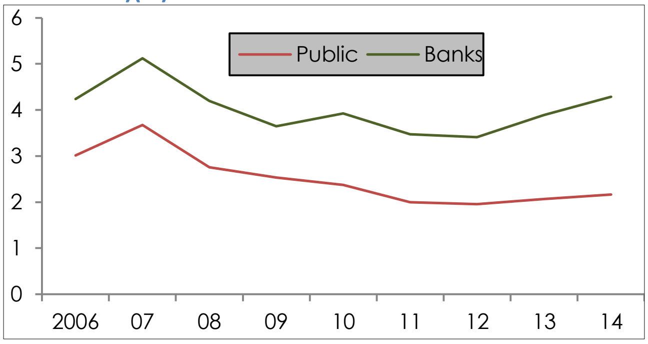
Figure 5.10: Trading Volume in Amman Stock Exchange (2010-2014)(JD Billions)



Share Price Index Weighted by Market Capitalization of Free Float

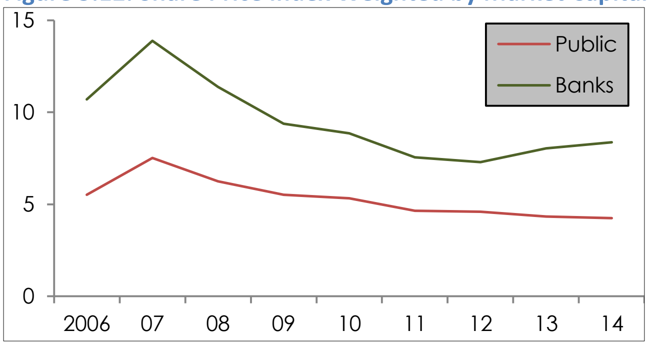
Despite the negative economic repercussions on Jordan of the political situation in the neighborhood of Jordan and the continuous political conflicts in some countries in the MENA region, the performance of the share price index weighted by market capitalization of free float – that incorporates 100 companies that are of the largest and most active companies in the primary and secondary markets- witnessed a realizable improvement at the start of 2014. It increased by 6.8% at the end of January 2014 relative to December 2013. After which it witnessed a volatile movement to conclude the year 2014 by an increase of 4.8% (Figure 5.12). Regarding the banking sector, the closing SPI at the end of 2014 was 4,286.5 points, compared to 3,888.8 points at the end of 2013, representing a growth by 10.2%.

Figure 5.11: Share Price Index Weighted by Market Capitalization of Free Float Shares (Dec. Closing Price 1999=1000)(%)



As for share price index weighted by market capitalization, it closed at 4,237.6 points at the end of 2014 compared to 4,336.7 points at the end of 2013 declining by 2.3%. The performance of the banking sector was comparably better as the market-capitalization weighted share price index increased from 8,035.2 points at the end of 2013 to 8,373.0 at the end of 2014, registering a rise by 4.2% (Figure 5.13).

Figure 5.12: Share Price Index Weighted by Market Capitalization (Dec. Closing Price 1999=1000)(%)



Concluding Note about Stock market

The financial market in Jordan is still facing a drawback despite the slight improvements in the stock prices in 2014 that is attributed to the negative impacts of the prevailing economic and political conditions in the MENA region. Regarding the exposure of the banking sector in Jordan to the financial market risks, it is an immaterial exposure to a far extent because of the small portion of total investments allocated by banks to the investment in this market and the small portion allocated to credit facilities that are collateralized by stocks or granted for purchase of stocks. This implies that the slowdown and volatility that the financial market is witnessing does not materially impact the soundness of the banking sector, and hence, the stability of financial system in Jordan.

Chapter Six: The Exposure of Banking System to Real Estate Market Risks and the Real Estate Price Index

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, Jordan is not an exception.

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, in addition to 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 the real estate price index that has been very recently developed in cooperation between the CBJ and the Department of Land and Survey.

Bank's Exposure to Real Estate Sector

Total credit facilities granted to the real estate sector for commercial and residential purposes reached JD3.94 billion at the end of 2014, accounting for 20.6% of the total facilities granted by banks, compared to JD3.90 billion at the end of 2013, at a growth rate of 1.0% compared to 7.5% in 2013. It is worth mentioning in this context that the annual rate of growth during the years 2006-2014 amounted 15.9% (Figure 6.1). This decline in the growth rate of credit facilities extended to the real estate sector is attributed to the general decline in the growth of total credit facilities that grew by 1.8% only in 2014 compared to 6.3% in 2013 (Figure 6.2).

Figure 6.1: Real Estate Credit Facilities and Its Share of Total Credit Facilities (2005-2014)

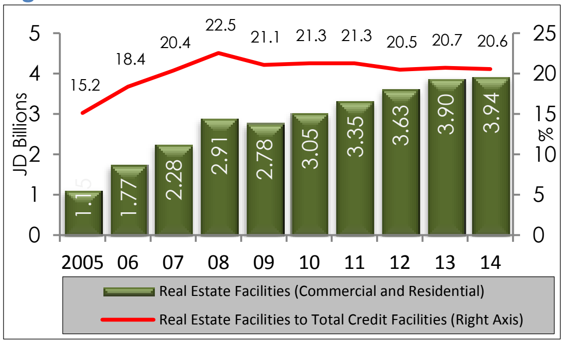
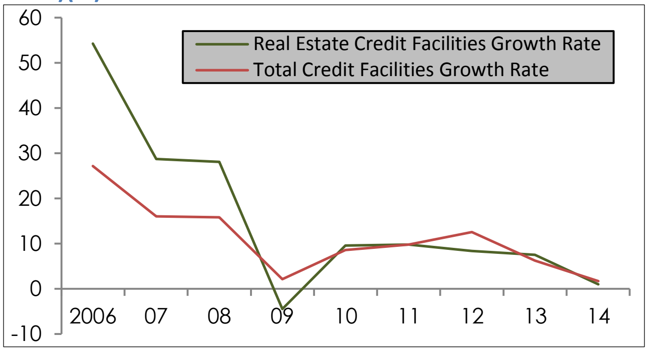
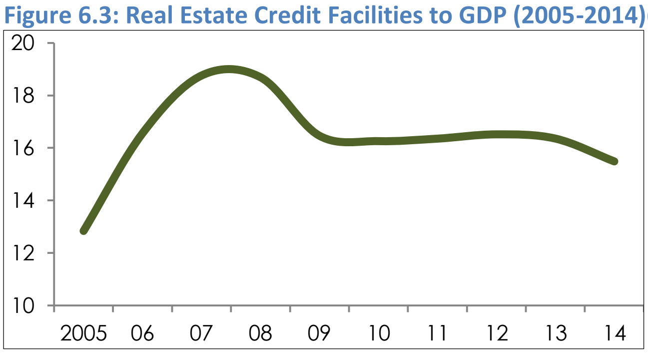


Figure 6.2: Total Credit Facilities Growth Rate Compared to Real Estate Credit Facilities Growth Rate (2006-2014)(%)



Regarding the ratio of credit facilities extended to the real estate sector to the GDP, Figure 6.2 depicts the evolution of the ratio of credit facilities granted to the real estate sector to GDP during the period (2005-2014). As can be noted from Figure 6.3, 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.

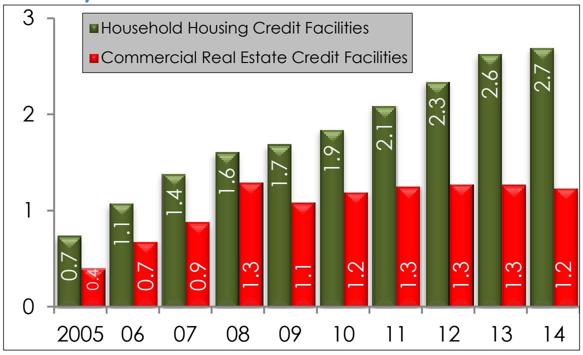
Figure 6.3: Real Estate Credit Facilities to GDP (2005-2014)(%)



Components of Real Estate Credit

Household housing credit formed 68.5% of total credit extended to real estate sector, whereas corporate real estate credit formed 31.5% (Figure 6.4).

Figure 6.4: Household Housing Credit Facilities and Commercial Real Estate Credit Facilities (2005-2014)(JD Billions)



Household Real Estate Credit

The total housing loans granted to individuals by banks reached JD2,698.0 million at the end of 2014, compared to JD2,632.0 million at the end of 2013; at a growth rate of 2.5%. Back to 2005, the size of this type of credit was JD744.0 million; which means that they doubled more than three times during the last nine 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 30.0% approximately. 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 (2011-2013)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 12.5% approximately. However, growth in real estate loans slowed down in 2014 to 2.5% at the end of the year (Figure 6.5 and Figure 6.6).

Figure 6.5: Household Housing Credit Facilities and It's Share of Total Real Estate Credit Facilities (2005-2014)

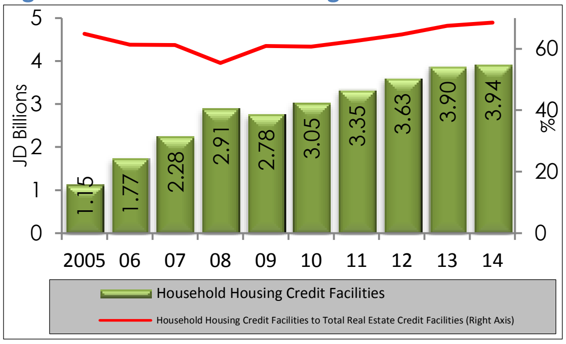
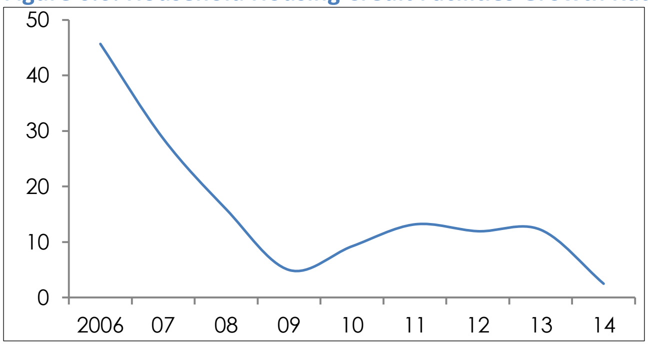


Figure 6.6: Household Housing Credit Facilities Growth Rate (2006-2014)(%)



As for the ratio of household housing loans to GDP, they reached 10.6% approximately at the end of 2014. Compared to selected countries in the world, Jordan was the fourth lowest country amongst them (Figure 6.7). The main reason behind this low share is that about 73.0% of Jordanians own their living places. Besides; there are other 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 6.8).

Figure 6.7: Residential Real Estate Credit Facilities to GDP for Jordan and Selected Countries for (2014) (%)

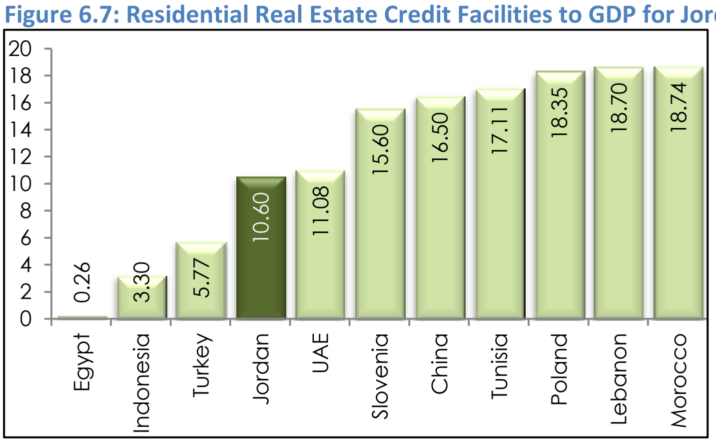
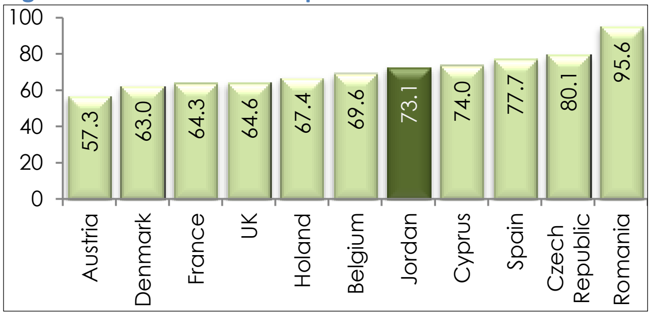


Figure 6.8: Home Ownership Rate in Jordan and Selected Countries for (2013*)(%)



* Jordan's data are for 2012.

Corporate Real Estate Loans

The total corporate real estate credit facilities granted by banks at the end of 2014 reached JD1,241.0 million, forming about 31.5% of the total credit facilities to real estate sector, which is 2.2% lower than the level attained at the end of 2013, which approximated JD1,269.0million. 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 6.9 and Figure 6.10). 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 6.9: Commercial Real Estate Credit Facilities Growth Rate (2006-2014)(%)

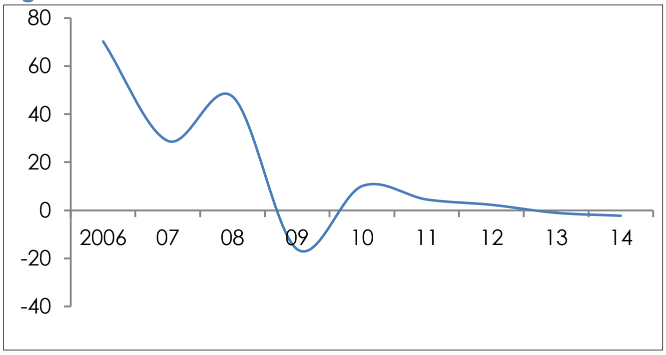
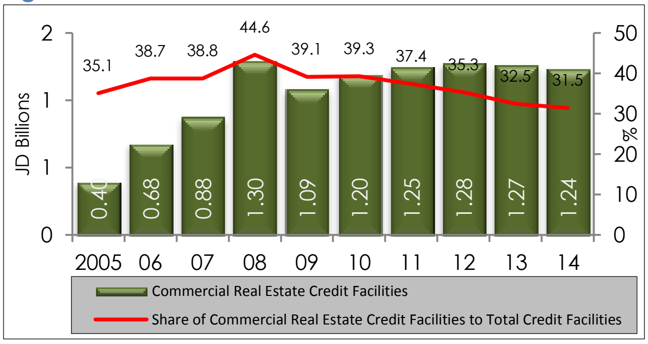


Figure 6.10: Real Estate Credit Facilities and It's Share of Total Real Estate Credit Facilities (2005-2014)



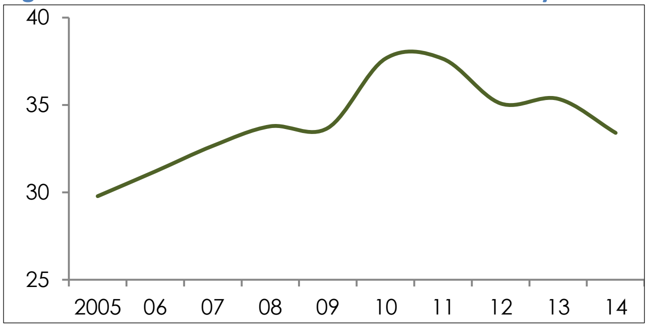
Direct Credit Facilities Guaranteed by Real Estate Collateral

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 reachedJD2,493.0 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 JD6,433.0 million at the end of 2014, composing about 33.4% of total credit facilities compared to 35.3% at the end of 2013. 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. This signals the decrease in the exposure of banks to real estate market risks (Figure 6.11).

Figure 6.11: Direct Credit Facilities Guaranteed by Real Estate Collaterals (2005-2014) (%)



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.

The Calculation Methodology of Real Estate Price Index in Jordan

Figures 6.12, 6.13, 6.14, 6.15, 6.16 and 6.17 illustrate different aspects related to real estate price index in Jordan and the change in the index during the period (2005-2014). As appears from these figures, the REPI in Jordan increased from 105.5 points at the end of 2013 to 115.1 points at the end of 2014 by 9.1% compared to 5.5% in 2013 over 2012, which means that the prices of real estate in Jordan witnessed a realizable increase especially when compared to the period (2009-2013). The increase in prices was more significant in lands as the lands REPI increased by 12.8% at the end of 2014 compared to 4.8% and 2.7% for residential and commercial estates respectively. However, the increase in 2014 is still lower the rise in the period preceding the global financial crisis (2005-2008). In this regard, the index passed different phases that can be summarized in three phases as mentioned in the 2013 JFSR:

Figure 6.12: Real Estate (Residential, Commercial and Land) Price Index in Jordan (2005-2014)

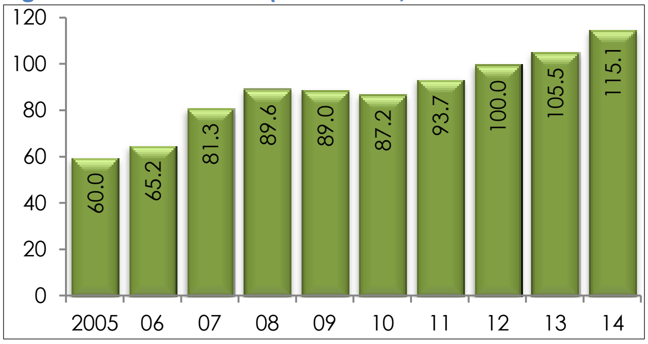
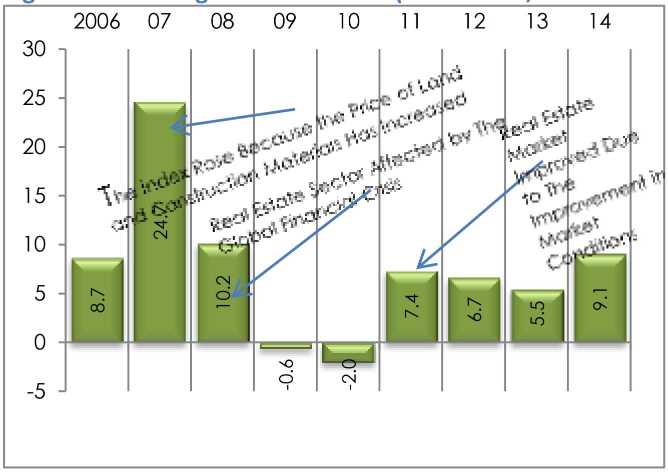


Figure 6.13: Changes in Real Estate (Residential, Commercial and Land) Price Index in Jordan (2006-2014)(%)



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. The second phase is

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. The third phase is

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.

Figure 6.14: Real Estate Price Index (Residential, Commercial and Land) and Total Real Estate Credit Facilities in Jordan (2005-2014)

Figure 6.15: Residential Real Estate Price Index and Its Percentage Change (2006-2014)

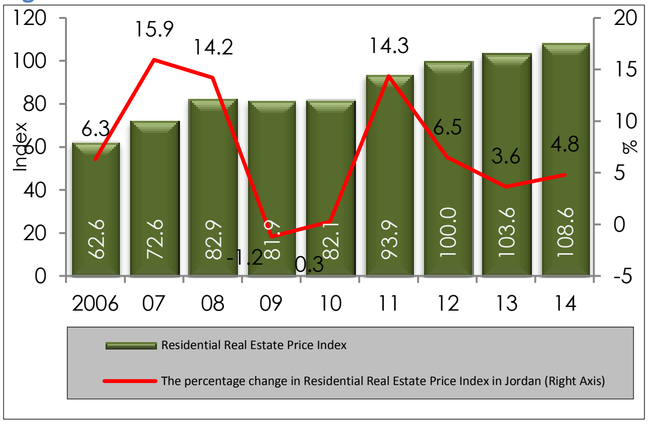


Figure 6.16: Non-residential Real Estate Price Index and Its Percentage Change (2006-2014)

Regarding the REPI for Amman, the index witnessed an apparent growth during the years 2006-2014, where REPI was 52.1 points in 2005 and reached 114.3points in

2014at a growth rate of 119.4%. Regarding the other governorates, the index witnessed a positive trend as well, but at a slower pace than Amman, whereas for Zarqa, the REPI increased from 67.5 points in 2005 to 112.0 points in 2014 at a growth rate of 65.9%. For Balqa, the REPI increased as well from 78.6 points in 2005 to 120.2 points in 2014 at a growth rate of 52.9%. Finally, for Irbid, the REPI increased from 83.2 points in 2005 to 123.4points in 2013 at a growth rate of 48.3% (Figure 6.18).

Figure 6.17: Lands Price Index and Its Percentage Change (2006-2014)

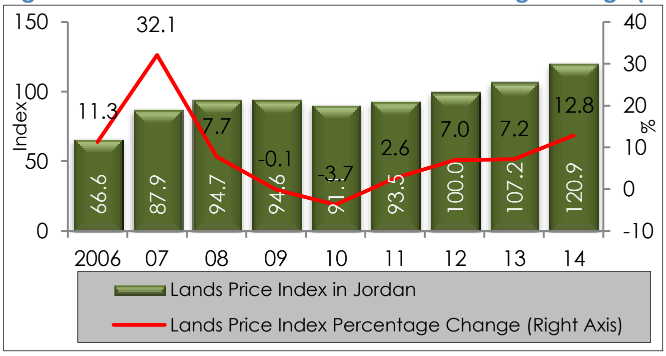
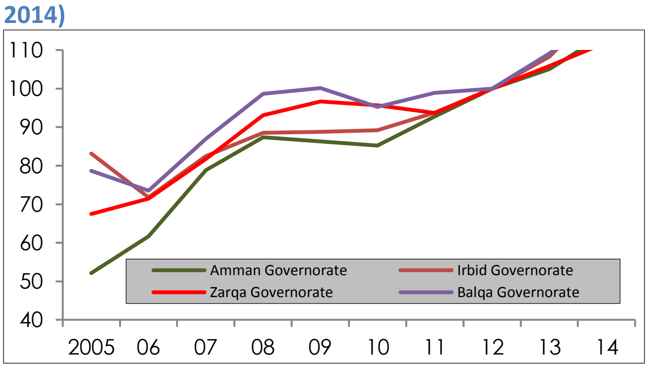


Figure 6.18: Distribution of Real Estate Price Index by The Most Important Governorates in Jordan (2005-2014)



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 JD859.0 as at the end of 2014. Even though it is relatively high when compared to domestic averages, it is lower than its counterpart in several Arab countries including Marrakesh, Lebanon and Dubai. In this regard, Amman ranks 88th in the residential real estate price per square meter (Figure 6.19 and Figure 6.20).

Figure 6.19: Land Prices for Amman and Selected Arab Cities (2014)(Thousand JD per Square Meter)

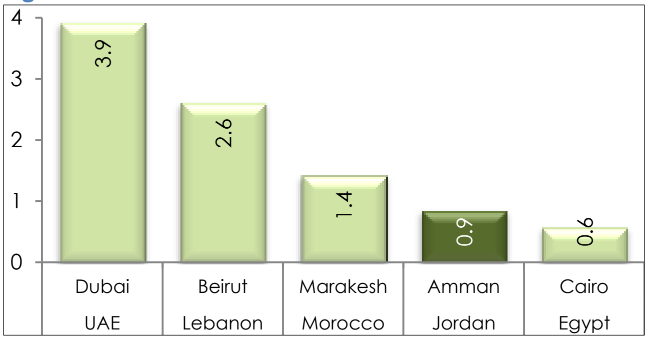
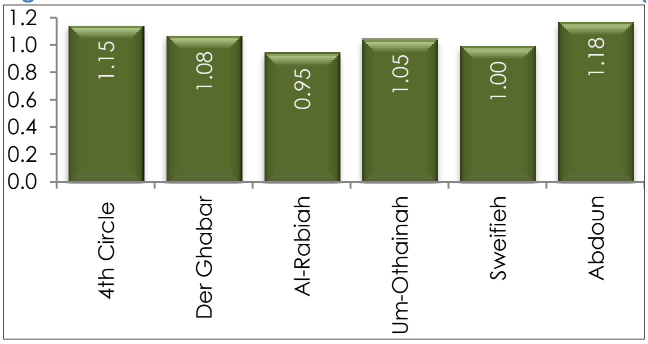


Figure 6.20: Land Prices for Selected Locations in Amman (2013)(Thousand JD per Square Meter)



In general, the real estate price index in Jordan increased during 2014 by 9.1% compared to its value in 2013. It also increased in the post-crisis recovery phase (2011-2014) 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 4.4%. 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.

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.

Trading volume in the real estate market

The report published by the Department of Land and Survey covering the first five months of 2015 stated that the trading volume in the real estate market decreased by 9.0% compared to the same period in 2013 to reach JD2.83 billion approximately. It is worth mentioning that the real estate trading volume in 2014was well aboveJD7,763.0 million, an increase by 22.0% from its counterpart in 2013. Figure 6.21 illustrates the historical movements in the real estate trading volume and REPI during the period (2005-2014).

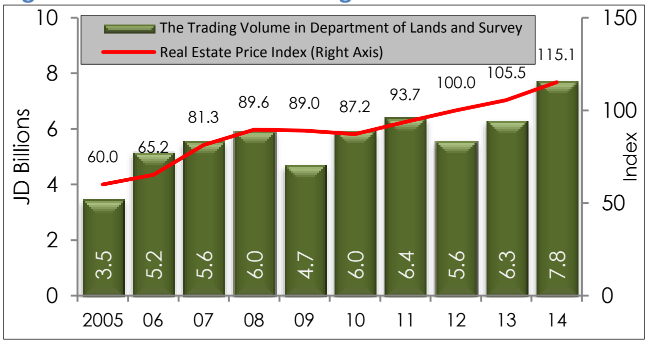
Regarding the real estate sales to non-Jordanians, it reached JD154.7 million at the end of May 2015, composing only 5.5% of total real estate trading volume. Iraqis accounted for the highest share in this market, in which their purchases composed 54.0% of the total sales to non-Jordanians during 2014 (Table 6.1).

Table 6.1: Real Estate Sales to Non-Jordanians (2012-2014) (JD million)

Country of Citizenship	2012	2013	2014	2015*
Iraq	224.7	205.0	266.3	75.6
Saudi Arabia	51.6	58.6	64.1	26.0
Syria	17.0	23.7	28.6	7.7
USA	13.8	22.0	NA	NA
United Arab Emirates	NA	NA	17.4	NA
Other	121.9	97.0	115.6	45.4
Total	429.0	406.5	492.0	154.7

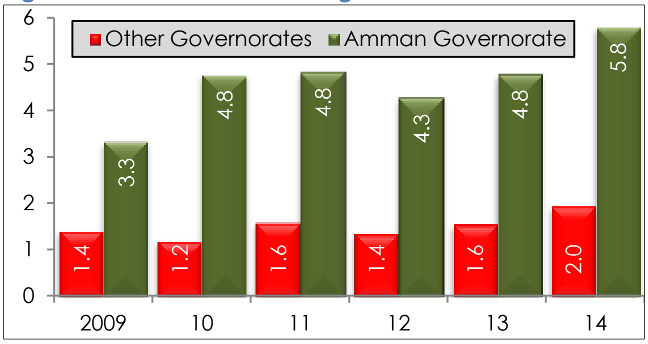
Source: Department of Land and Survey. * First Five Months.

Figure 6.21: Real Estate Trading Volume and Real Estate Price Index in Jordan (2005-2014)



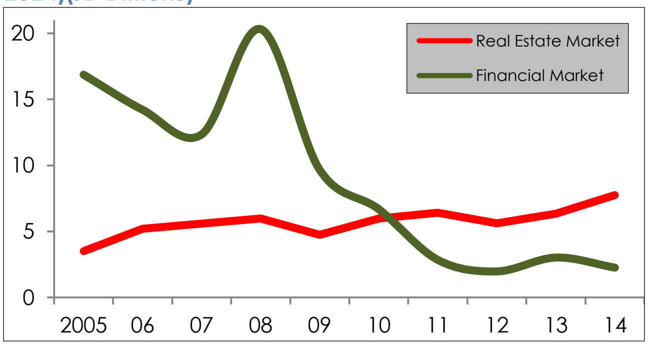
Comparing the trading volumes in 2014 for selected governorates, it is evident that Amman Governorate had the highest trading volume of JD5,807.0 million, composing 74.8% of total trading volume in the real estate market, while it was JD1,956.0 million in the other governorates, composing 25.2% of the total trading volume (Figure 6.22).

Figure 6.22: Real Estate Trading Volume In Amman and Other Governorates (2009-2014)(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 and, hence, boost 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 become much lower than its counterpart in the real estate market, as real estate asset is less risky compared to financial assets (Figure 6.23).

Figure 6.23: Real Estate Trading Volume for Jordan and Amman Stock Exchange Trading Volume (2005-2014)(JD Billions)



At the end of July 2015, the cabinet approved a package of measures to stimulate the real estate sector and resolve the obstacles and difficulties that this vital sector, which has suffered for several years from the repercussions of the global financial crisis and instability in the region, is facing. The stimulation package that has been approved by the cabinet and is valid until the end of 2015included the exemption of apartments and houses not exceeding an area of 150 square meters (sq. m)from the registration fee instead of 120 sq. m as was the case before the change. 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. While single houses of an area that exceeds 180.0 sq.m are fully subject to the registration fee.

The cabinet also allowed troubled companies and non-Jordanians to sell before the deadline set by 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. According to some real estate investors, these government measures and decisions, in addition to the Memorandum of Understanding that was signed between the JHDA and Greater Amman Municipality, related to simplification and acceleration of the procedures required by the Greater Amman Municipality, will make the price of apartments decline by between 5% -15% in the near future.

Loan-to-Value Ratio Limits for Individual Housing and Commercial Loans in Jordan

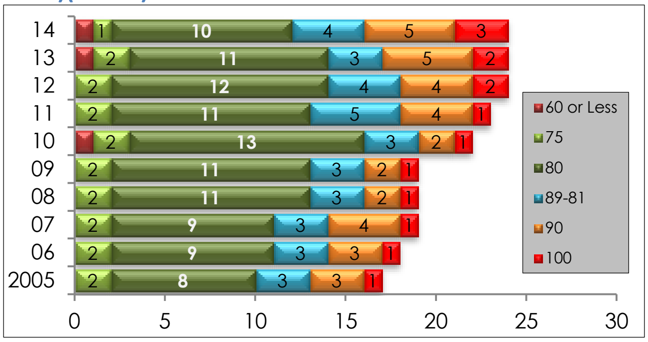
The ratio of loan to the value of the mortgaged real estate (LTV) is one of the most important ratios and indicators that must be monitored to evaluate the degree of exposure of banks to the real estate market. The relatively high ratio might make the banks exposed to high risk in case the prices of 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.

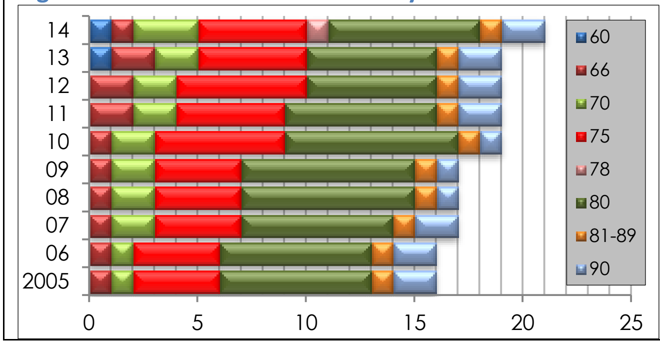
Figure 6.24 shows the LTV ratio for housing loans granted to individuals. As appears from the figure, the LTV for 12 banks (composing 50.0% of licensed banks in Jordan) did not exceed 80.0%, whereas it ranged from 81.0% to 89.0% for four banks, roughed 90.0% for five banks and 100.0% for three banks.

Figure 6.24: Distribution of Banks by Maximum LTV Ratio for Housing Loans Granted to Individuals (2005-2014)(Count)



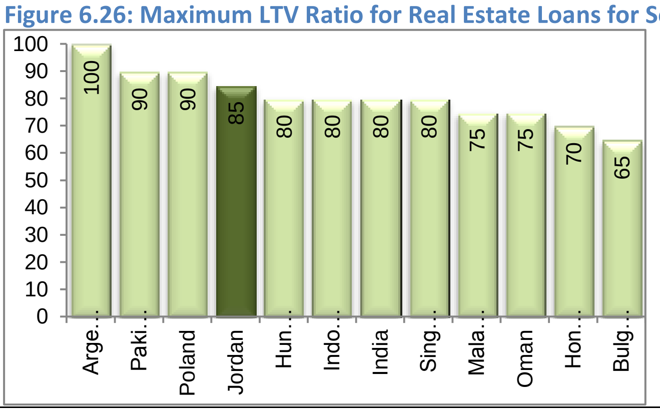
Regarding the maximum LTV ratio, it is lower than its counterpart for the individual housing loans in the majority of banks, as 86.0% of banks extended commercial loans with an LTV ratio not exceeding 80.0% (Figure 6.25).

Figure 6.25: Distribution of banks by Maximum LTV Ratio for Commercial Loans (2005-2014)(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 6.26).

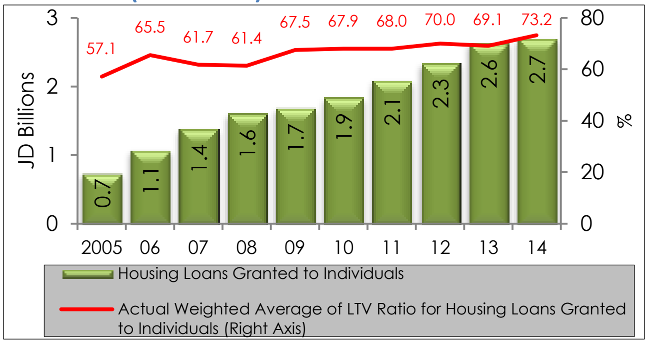
Figure 6.26: Maximum LTV Ratio for Real Estate Loans for Selected Countries (2014)(%)



Actual Average LTV Ratio for Individual Housing and Commercial Loans in Jordan

Despite the high LTV ratio 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 69.1% at the end of 2013 and increased to 73.2% at the end of 2014.

Figure 6.27: Housing Loans and Actual Weighted Average of LTV Ratio for Housing Loans Granted to Individuals (2005-2014)



It can be noted from Figure 6.27 that there is an upward trend in actual average LTV ratio for individual housing loans. But it is still lower than the limit set by banks in their credit policies.

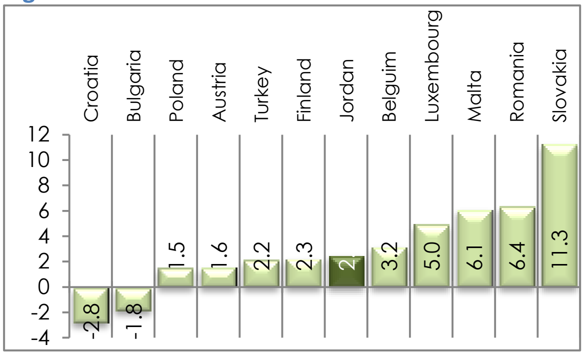
As for the actual average of the LTV ratio for the commercial real estate loans, it was close to its counterpart for the individual housing loans and amounted72.3% at the end of 2014 (Figure 6.28).

Figure 6.28: Commercial Real Estate Loans and Actual Weighted Average of LTV Ratio for Commercial Real Estate Loans (2005-2014)

Housing Loans in the World

By comparing the growth rate of housing loans in Jordan with selected countries for the year 2014, it is noted that the growth rate in Jordan is one of the average rates compared with the comparator countries (Figure 29.6).

Figure 6.29 Residential Real Estate Loans Growth Rate for Jordan and Selected Countries (2013*)(%)



* Jordan's data are for the year 2014.

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

As mentioned in the 2013 JFSR, the CBJ decided some limits in a purpose to mitigate 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:

1. A cap on real estate loans. **Credit Concentration Instructions No.9/2001 dated01-08-2011** 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.

2. 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.

Conclusion

The credit facilities extended for, or guaranteed by, real estate composed more that 33.4% of total credit facilities extended by banks. Even though this share is considered high relatively, the assessed value of the mortgaged property exceeds with a comfortable margin the granted credit, as the real estate collaterals cover about 137.0% 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, which implies that the increase in real estate prices in Jordan is not abnormal. However, given the high household debt-to-income ratio, as mentioned in Chapter Five, of which the housing loans composed about 34.0% at the end of 2014, banks need to be cautious and thoroughly monitor the evolution of these risks when deciding to expand loans to the household sector in particular and real estate sector in general.

The CBJ will keep on monitoring the developments in the real estate market prices and the exposure of banks to its risks.

Chapter Seven: Interest Rate Margin Components and Determining Factors

The interest margin is one of the most important factors that quantifies the efficiency and effectiveness of banks in utilizing their sources of funds and implementing their major task of financial intermediation between depositors and borrowers. According to the relevant literature in this regard, the high interest margin resulting from the low interest rates on deposits and the high ones on loans adversely impacts savings and increases the costs of borrowing for the potential borrowers and hence reduces investment and leads to a slowdown in economic activity.[12] Studies also showed that the high interest margins are correlated with the weak operational efficiency of banks.[13]However, the high margins help enhance the banks' solvency as the profits materialized from the high margins are directed towards supporting the capital base of banks.[14]

Regarding the components of the interest margin and its determining factors, the literature indicated that there are several determinants that vary by country. For example, some studies stated that the determinants are bank-specific while other studies pointed that the factors are industry-specific. Nevertheless, some other studies inserted that the macroeconomic variables are of the most important determinants of the interest rate margin, especially in the developing countries.[15] It is worth mentioning that a working paper published by the IMF determined the following as the factors impacting interest-rate margin determination: reserve requirement costs, operational costs, loan loss provision costs, profitability and non-interest income.[16]

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[12] Brock, P. L. and Suarez, L.R. 2000, "Understanding the behavior of bank spreads in Latin America", Journal of Development Economics, 63, pp.113-135.

[13]Operational efficiency is defined as: "the optimal utilization of production capacity at the institution level, and directing available resources toward achieving the maximum return potential at the lowest possible cost. In other words, operational efficiency implies the successful control of the institution's physical, financial and human possibilities to ensure the best performance with the economic, social and political environment under which the institution exists

[14]Saunders, A. and Schumacher L., 2000 "The determinants of bank interest margins: an international study", Journal of International Money and Finance, pp. 813-832.

[15]Hamadi, and Awdeh, 2012 "The Determinants of Bank Net Interest Margin: Evidence from the Lebanese Banking Sector", Journal of Money, Investment and Banking, pp. 86-98.

[16]Tigran Poghosyan. 2012. Financial Intermediation Costs in Low-Income Countries: The Role of Regulatory, Institutional, and Macroeconomics Factors. WP140, IMF.

In this chapter, the evolution of interest rate margin in the licensed banks in Jordan[17] is discussed and its components as specified by the previously-mentioned IMF study are analyzed. Besides, the chapter tries to identify the factors that affect the interest rate margin through testing a set of candidate variables. Moreover, the CBJ's efforts to calm down the interest rate margin are detailed.

The Evolution of Interest Margin of the Licensed Banks

Interest rate margin followed a downward trend during the period (2010-2013), as it fell from 6.62% at the end of 2010 to 5.68% at the end of 2013 and then increased to 6.02% at the end of 2014. The margin's decline during the period (2010-2013) is due to the rise in interest rates on deposits and the slight fall in the interest rates on credit facilities. Whereas the increase in 2014 is attributed to the bigger decline in the interest rates on deposits than credit facilities, as they declined by 0.51 percentage point and 0.17 percentage point respectively. Consequently, the interest rate margin increased by 0.34 percentage points at the end of 2014 from its level at the end of 2013.The average interest rate on deposits was 2.42% at the end of 2010, after that it followed an upward trend until the end of 2013, when it reached 3.33%.However, this rate declined at the end of 2014 to 2.82%. In contrast, the average interest rate on credit facilities was 9.04% at the end of 2010, and then decreased to reach 8.68% at the end of 2011 before following a positive trend until the end of 2013, and increased to 9.01%. However, it returned to the downward trend at the end of 2014 and roughed 8.84%. Figure 7.1 illustrates the evolution of interest rates on deposits, interest rates on credit facilities and interest rate margin during the period (2010-2014).

When compared to the other countries, the interest rate margin in the banking system in Jordan is relatively high, as Jordan is the fourth highest country among 18 selected countries representing various continents (Figure 7.2).

A detailed analysis is conducted next to investigate the reasons behind the high interest-rate margin in Jordan and the impacting factors.

[17] Islamic banks were exempted from the calculations in this chapter.

Figure 7.1: Evolution of Interest Rate Margin and Interest Rate on Deposits and Credit Facilities (2010-2014)(%)

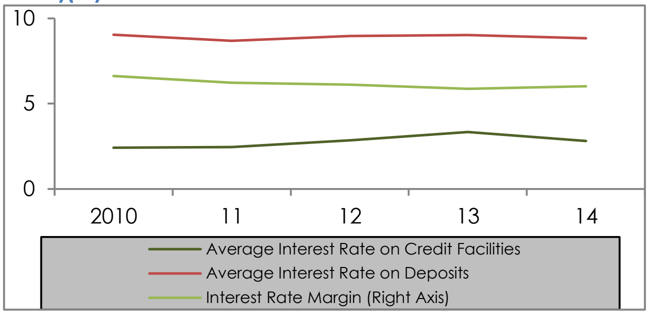
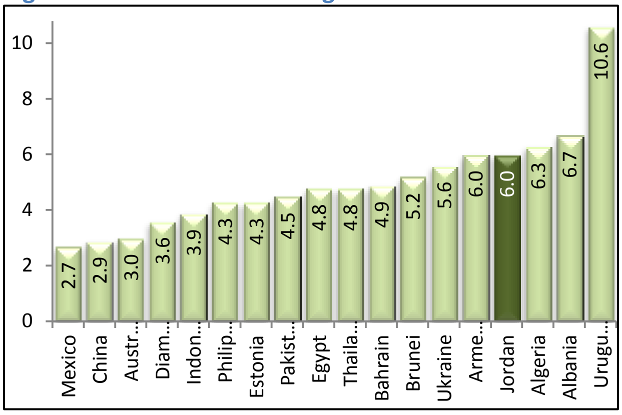


Figure 7.2: Interest Rate Margin for Jordan and Selected Countries for 2014 (%)*



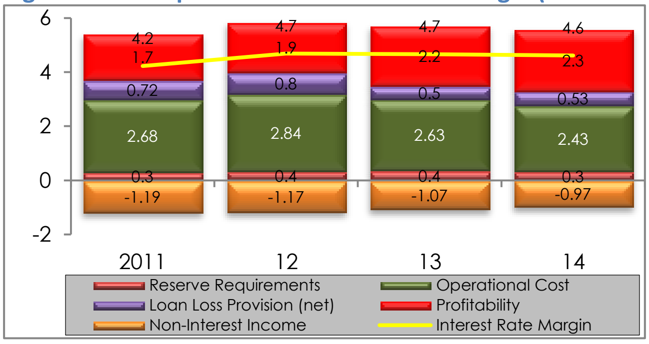
Interest-rate Margin in Jordan

An analysis of the components of the margin using a methodology used in the previously mentioned IMF WP140 conducted by Tigran Poghosyan and published by the IMF in 2012 - summarized in Box 7.1implies that the interest rate margin must cover the operating expenses of the banks, the cost of debt provisions, the cost of required reserve ratio deposited in the central bank and profits (Figure 7.3).

Using this method, the share of the operating expenses of banks (general and administrative expenses except provisions) in the margin were 2.43 percentage points nearly, representing 40.4% of the margin at the end of 2014. Given that, according to the IMF WP140, the average share of operating expenses in the margin was 58.0% in the emerging market economies approximately, which means that the net interest margin in Jordan is reasonable and lies within the acceptable levels.

Regarding the components covered by the interest rate margin for the licensed banks during the period (2012-2014), it is noted that there was an improvement in the operational efficiency amongst banks, as previously mentioned, where the share of the operating expenses in the margin decreased from 2.84 percentage points in 2012 (46.5% of margin) to 2.43 percentage points (40.4% of margin) in 2014.

Figure 7.3: Components of Interest Rate Margin (2011-2014)(%)



The cost of debt provisions declined from 0.80 percentage points in 2012 (13.1% of margin) to 0.53 percentage points in 2013 (8.8% of margin). At the same time, the share of bank profits from the interest rate margin increased from 1.71 percentage points in 2011 (27.5% of margin) to 2.29 percentage points in 2014 (38.0% of margin). This indicates that the improvement in the operational efficiency of banks, as revealed by the low share of both operating expenses and debt provisions of banks, was not reflected on lowering the interest rates due to the banks action of increasing their profit margin.

Box 7.1: The Calculation of Net Interest Margin

Net interest margin covers, per an IMF working paper, Reserve requirement costs, operational costs, loan loss provision costs, profitability, non-interest income. Therefore the net interest margin is calculated as follows:
Table 4.1 shows the results of applying the above equation to calculate the net interest rate margin on banks operating in Jordan during the period (2011-2014).

Table 7.1: Results Of The Application Of The IMF Equation For Calculating Net Interest Margin On The Banks Operating In Jordan (2011-2014) (%)

Components	2011	2012	2013	2014
Reserve requirement costs	0.31	0.35	0.37	0.34
Operational costs	2.68	2.84	2.63	2.43
Loan loss provision costs	0.72	0.80	0.50	0.53
Profitability	1.71	1.87	2.23	2.29
Non-interest income	1.19	1.17	1.07	0.97
Net Interest Margin	4.22	4.68	4.66	4.61

The net interest margin covers the banks' cost and profitability components as follows:

- Reserve requirement costs: High reserve requirements impose additional costs on banks, since they have to pay a market interest rate to depositors but have to hold a fraction of these deposits in the central bank at a zero rate. Banks normally pass these additional costs on to their borrowers.
- Operational costs: This determinant measures the impact of bank efficiency on the margin. More efficient banks are able to maintain lower operational costs relative to their less efficient counterparts. Therefore, the lower the share of operational cost in the margin, the most efficient banks in terms of operational efficiency.
- Loan loss provision costs: This determinant proxies the impact of credit risk on the margin. Banks with riskier lending portfolio are required to transfer a larger amount of funds to maintain adequate loan loss provision reserves, which weighs on the margin.
- Profitability: This factor defines the part of the margin that banks add up to their costs to maintain an adequate level of profitability.
- Non-interest income: Banks' earning funds from nontraditional banking activities (such as, fee-based activities, licensing, insurance, etc.) may maintain an adequate level of profitability while operating at lower margins. This explains why this factor enters the above decomposition with a negative sign.

Factors Affecting the Net-Interest Margin

In order to determine the factors that might affect the net interest margin, a set of variables were examined using multiple regression. These include:

- Bank-specific variables that are related to the characteristics of individual banks. Examples are assets and credit-to-asset ratio.
- Banking industry-specific variables that reflect the characteristics of the market in which the banks do their business. Examples are competitiveness and interbank rates.
- Macroeconomic variables, which are the indicators of the macroeconomic conditions. Examples are GDP growth and inflation rates. Figure 7.1 lists the variables used in the multiple regression analysis.

Table 7.2: The variables used to measure their effect net interest margin

Factor	Variable	Abbreviation
Bank-specific variables	Individual bank's assets	SIZ
	Credit-to-asset ratio	LOAN
Banking industry-specific variables	Total assets of the largest five banks to total assets ratio	CONC
	Interbank rate	INTER
Macroeconomic variables	GDP growth rate	GDP
	Inflation rate	INF

Methodology and Data[18]

To identify the factors that might affect net interest margin (NIM), the following multiple regression model was used:

$$NIM_{it}=ß_0+ ß_1SIZ_{it}+ß_2LOAN_{it}+ß_3CONC_t+ ß_4INTER_t+ ß_5GDP+ ß_6INF_t+\epsilon_t$$[19]

Empirical Results

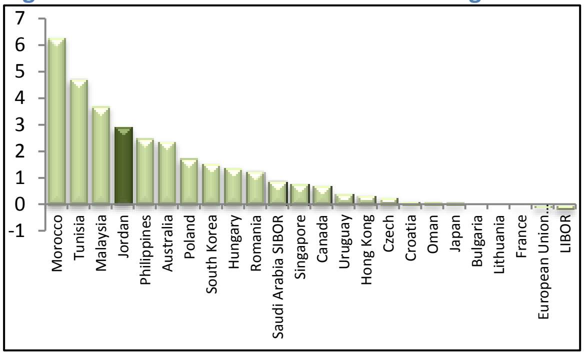
Table 7.3 summarizes the test results. As shown, the explanatory power of the model is acceptable, where R^2 was 48.6% and adjusted R^2 was 44.3%. Regarding the effect of the explanatory variables on NIM, they were as follows:

Bank-specific variables: The run included two variables: individual bank's assets (SIZ) and credit-to-asset ratio (LOAN). The results revealed a statistically significant positive coefficient for LOAN, which implies that the expansion of banks' credit leads to an increase in the net interest margin. As for the individual bank's assets (SIZ), the parameter $ß_1$had positive coefficient value though not statistically significant.

[18] Study period is 1998-2014.
[19] Check Table 7.1 for definition of the variables used in the multiple regression analysis.

Banking industry-specific variables: The econometric model showed that the ratio of assets of the largest five banks to total assets (CONC) has a statistically significant positive impact on NIM, which implies that the increase in CONC leads to increase in NIM by $\beta_3$because it gives the large banks that have comfortable liquidity levels, and that do not usually need to pay high interest rates on deposits, bigger relative importance in determining the net interest margin. The analysis also revealed that the interbank rate has a statistically significant positive impact on NIM, which means that banks might widen the net interest margin when the interbank loan rate increases to compensate for the rise in the cost of financing the banks' sources of funds. Given that interbank loan rate decreased from 4.309% at the end of 2012 to 2.944% at the end of 2014, it is still considered high relative to some other (selected) countries, however. (Figure 7.4)

Figure 7.4: Interbank Loan Rate for Overnight Loan for Selected Countries (2014)(%)



Macroeconomic indicators: The econometric analysis revealed that there is a significant positive impact of GDP growth on NIM. Therefore, the improvement in economic activity as shown by the increase in the GDP growth during the period (2013-2014) compared to the period (2010-2012) might be one of the drivers of the increase in net interest margin. The mechanism of impact starts from the improvement in the economic activity that is usually linked to the increase in the demand for credit, hence, banks are not obliged to cut down interest rates on credit in the same magnitude as the ones on the deposits in response the CBJ's measures represented by cutting down the interest rates several times. The impact of inflation (INF) on NIM was not statistically significant.

Table 7.3: Multiple Regression Results the Variables and Factors Determining Net Interest Margin

Variable	Parameter Value	t-Statistic	Prob.
LOAN	0.0285	4.7929	0.0000
CONC	0.0094	2.9287	0.0037
INTER	0.1602	4.7618	0.0000
GDP	0.1362	6.2542	0.0000
R^2	48.6%		
Adjusted R^2	44.3%		
n	324		
F-statistic	11.2796		
Prob (F-statistic)	0.00000		
Durbin-Watson	1.4072		

CBJ's Monetary Policy Measures

Developing the Monetary Policy Operational Framework and Cutting Policy Rates

The CBJ continued following a prudent monetary policy to achieve monetary and financial stability in Jordan efficiently and effectively in compliance with the best practices in this regard through continuous monitoring and following up of the domestic and international economic and monetary developments besides observing the various relevant variables and utilizing the feasible tools appropriately to achieve these goals. The most common tools are the key interest rates and the open market operations. In the context of its policy of reviewing and improving its tools in an optimal manner to attain its goals and comply with the general economic and monetary trends, the CBJ developed and updated its monetary policy operational framework to enhance its effectiveness in attaining the monetary policy goals through the following:

Cutting down monetary policy rates

In the light of the several favorable events that the economy witnessed, of which the most realized is registering high foreign currency reserves level, the expected setback of current account deficit and the decline in the inflation rates, and in order to provide sufficient credit for various economic sectors at a reasonable cost to create an appropriate environment for stimulating economic growth to get to satisfactory growth rates, the CBJ has been cutting down monetary policy rates several times since August 2013, of which the last cut took place in July 2015. Table 7.3 includes the relevant details. For example, in February 2015 the policy rates were cut significantly, especially on deposit window, to stimulate the banks that have substantial excess liquidity to extend more credit to potential borrowers and utilize its sources of funds more effectively.

Table 7.4: The Evolution of Interest Rate Structure on Monetary Policy Tools

Date	Re-discount	Overnight Deposit Window	Repurchase Agreements (overnight)	Repurchase Agreements (one week)
Before 07-08-2013	5.00	4.00	4.75	4.25
07-08-2013	4.75	3.75	4.50	4.00
22-10-2013	4.50	3.50	4.25	3.75
20-01-2014	4.25	3.25	4.00	3.50
25-06-2014	4.25	2.75	4.00	3.00
03-02-2015	4.00	1.75	3.75	2.75
09-07-2015	3.75	1.50	3.50	2.50

CBJ Main Rate

This rate was decided to be the main rate for the purpose of managing the monetary policy in February 2015. The CBJ main rate was decided to range between 2.5% and 2.75% (expressed in terms of repurchase agreements for one week. This measure is used to give strong signals on the monetary policy stance and its responses to the domestic and international economic and monetary developments.

Certificates of Deposit

In order to enhance liquidity management in a way that enables the banks to manage their liquidity effectively and efficiently, the CBJ issued in 2015 certificates of deposit in JD with specified terms and values in order to attract part of the excess liquidity in banks using price auctions with a predetermined pricing range according to the relevant terms and conditions.

Conclusion

This study about Factors Affecting the Net-Interest Margin showed that the main reasons behind the high net interest margin in Jordan in comparison with selected group of countries can be summarized as follows:

1- The banking sector in Jordan is highly concentrated relatively. This gives to the large banks that have comfortable liquidity levels, and that do not usually need to pay high interest rates on deposits, bigger weight (higher relative importance) in determining the net interest margin.

2- The improvement in the operational efficiency of banks as revealed by the low share of both operating expenses and debt provisions of banks was not reflected on lowering the interest rates due the banks ' action of increasing their profit margin.

3- The economic activity as showed in the increase in the GDP during the period (2013-2014) compared to the period (2010-2012) might be one of the drivers of the increase in net interest margin – per the econometric model. The mechanism of impact starts from the improvement in the economic activity that is usually linked to the increase in the demand for credit, hence, banks are not obliged to cut down interest rates on credit in the same magnitude as the ones on the deposits in response the CBJ's measures represented by cutting down the interest rates several times.

4- Despite the decrease in the interbank loan rate recently. It is still considered high relative to some other (selected) countries. This explains the high net interest margin in Jordan.

5- The prevalence of high risks and uncertainty in the market due to the political instability in the region. This, in turn, impacts risk premium and hence leads to an increase in cost of loans on borrowers.

In the light of the high net interest margin in Jordan relatively (and relative to some selected group of countries), the CBJ requested banks in several occasions to respond more significantly to the CBJ's policy measures of cutting the interest rates on monetary policy tools several times by reflecting this decline on reducing interest rates, especially on credit facilities.

Chapter Eight: Stress Testing of the Banking System

Introduction

Stress testing is one of the risk management tools that aim at measuring the ability of the banking system to withstand shocks and high risks. The importance of stress testing increased after the global financial crisis. 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.

In this regards, the CBJ issued the **Stress Testing Instructions No. 46/2009 dated 30-09-2009**. In these instructions, the banks were asked to conduct a set of tests on the various risks faced by them, such as credit risk, concentration risk and market risk, among other risks. The CBJ will keep on improving these instructions in the future to keep posted on the relevant updates. The improvement process started during 2013 through improving stress testing methodology based on implementing a model developed by the IMF in 2011, called Next Generation Balance Sheet (NGBS) Stress Testing. This methodology is considered as one of the best methodologies used in this context. The CBJ used this methodology to conduct sensitivity analysis, besides macro stress testing using Top down Macro Stress Testing Satellite Model. This methodology is considered one of the most important stress testing tools that the supervisory authorities utilize as it (the methodology) measures the impact of macroeconomic indicators on the NPLs ratio and solvency (capital-adequacy) ratio.

It is worth mentioning in this regard that the CBJ is currently preparing new stress testing instructions focusing on bottom-up stress testing instructions that takes into consideration the recent updates in this field. The instructions are expected to be released during 2015.

Sensitivity Analysis

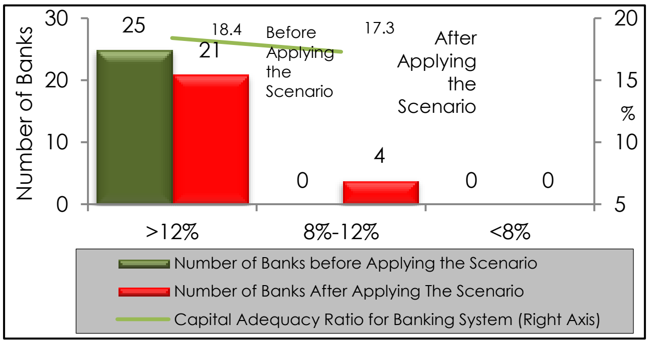
Credit Risk

Scenario One: The Doubling of Default Rates

This scenario assumed that credit losses doubled in banks (doubling default rates) 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 18.4% to 17.3%. 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 profits that the banks attained at the end of 2014 that helped enhance their capability to cope with the increase in the cost due to increased provisions and the additional losses that might take effect in case the shock materialized without them impacting banks' capital level that in turn protect banks' capital and enhance financial stability.

At the individual bank level, CAR was above 12.0% in 22 out of 25 banks. The resultant CAR is significantly above the minimum international number of 8.0% in the remaining banks. This implies that banks, individually and collectively are able to withstand this shock (Figure 8.1).

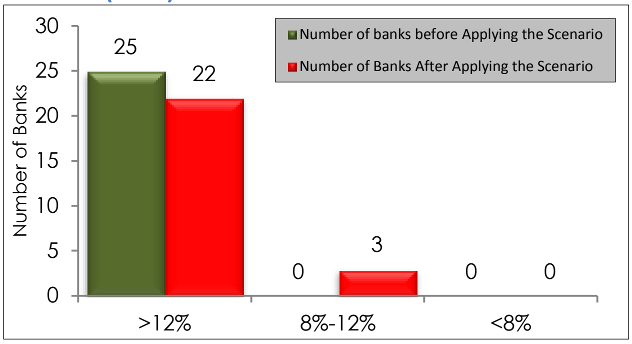
Figure 8.1: Capital Adequacy Ratio Before and After Applying The Doubling of Default Rates Scenario (2014)



Scenario Two: The Default of the Largest Three Borrowers

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 22 banks. It will drop below 12.0% in three banks only and range between 8.5% and 10.9%. Therefore, resultant CAR is well above the minimum international number of 8.0% (Figure 8.2).

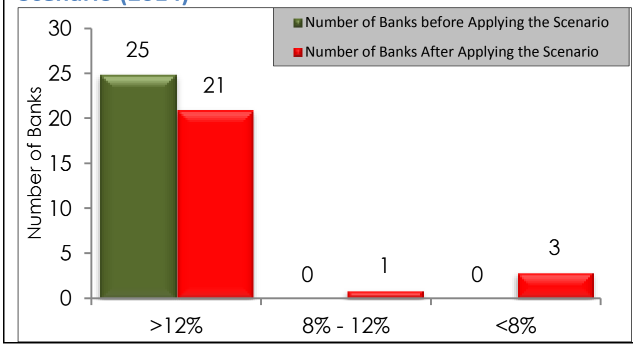
Figure 8.2: Capital Adequacy Ratio Before and After Applying The Default of the Largest Three Borrowers Scenario (2014)



Scenario Three: The Default of the Largest Six Borrowers

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 21 banks. It will drop below 12.0% in four banks only, where it will be above the minimum international number of 8.0% for one of these four banks, but below this number for the remaining three banks. This entails on some banks to mitigate their concentration risks. In this regard, the CBJ closely monitors the developments in the concentration risks though Credit Concentration Instructions (Figure 8.3).

Figure 8.3: Capital Adequacy Ratio Before and After Applying The Default of the Largest Six Borrowers Scenario (2014)



Market Risk

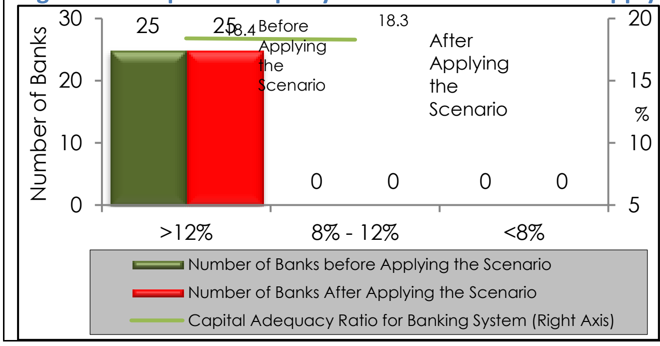
A set of sensitivity tests were conducted to investigate the impact of market risk on CAR. The analysis composed three shocks. Namely, interest rates, exchange rates and equity price. These three variables are the most commonly used ones in this regard. The analysis assumed here, of course, that all other variables remain unchanged - Ceteris Paribus.

Interest rate shock

Assuming that interest rates fall by 200 basis points (which is called Standardized Interest Rate Shock), the CAR at the banking system in Jordan will drop from 18.4% to 18.1%. %.

This implies that the banking system is in general capable of withstanding this shock since its CAR ex-post is still above the minimum limit applied in Jordan by a comfortable margin. On the individual bank level, the CAR is as well above the 12.0% limit for all banks. This indicates that banks' exposure to interest rate risk is very limited (Figure 4.8).

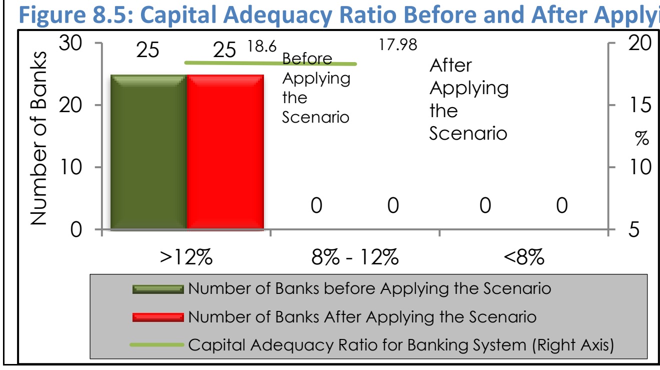
Figure 8.4: Capital Adequacy Ratio Before and After Applying The Interest Rate Shock Scenario (2014)



Exchange Rate shock

Under the scenario where the exchange rate of the JD against foreign currencies depreciates by 50%,[20] the CAR at the banking system in Jordan drops from 18.4% to 17.8%.[21]This implies that the banking system is in general 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. On individual bank level, the CAR is as well above the 12.0% limit for all banks. This indicates that banks' exposure to interest rate risk is significantly limited (Figure 5.8).

Figure 8.5: Capital Adequacy Ratio Before and After Applying The Exchange Rate Shock Scenario (2014)



Equity price shock

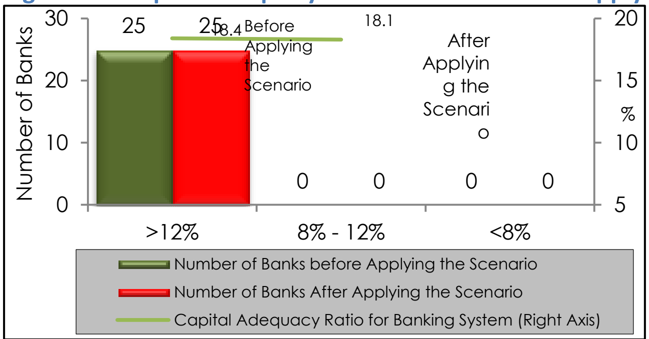
Under this scenario, the equity prices drop by 50% assuming the spread of uncertainty caused by the surrounding regional circumstances. In this case, the CAR at the

[20]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 JD13.7 billion at the end of June 2015. 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.

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

banking system in Jordan drops from 18.4% to 18.1%. This implies that the banking system is in general capable of withstanding this shock since its ex-post CAR is still above the minimum limit applied in Jordan by a comfortable margin. On individual bank level, the CAR is as well above the 12.0% limit for all banks (Figure 6.8).

Figure 8.6: Capital Adequacy Ratio Before and After Applying The Equity Price Shock Scenario (2014)



Generally, the market analysis suggests that the banking system in Jordan is capable of withstanding the risk of the most common shocks due to the comfortable capital levels that are of the highest in the MENA region and the low exposure to the investment market through focusing on its primary goal of lending.

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 of a hypothesized worsening in some macroeconomic variables assuming the exacerbation of surrounding geopolitical situation in the MENA region, the so-called **Satellite Model** has been employed. The indicators used included GDP growth rate as one of the main macroeconomic variables that affect the non-performing loans. 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. 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:

- Moderate Macro Stress Scenario
- Medium Macro Stress Scenario
- Severe Macro Stress Scenario

And the following multiple regression model was used:

$$NPL_t = \alpha_0 + \alpha_1 NPL_{t-1} + \alpha_2 \Delta GDP_t + \alpha_3 \Delta SPI_t + \alpha_4 IR_t$$

Where:
NPL: Non-performing loans ratio.
C: Constant
NPL_{t-1}: Previous year's non-performing loans ratio.
GDP: Growth rate of gross domestic product.
IR: Interest rate.
SPI: 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:

$$NPL_t = -12.67 + 0.87 NPL_{(t-1)} - 0.32 \Delta GDP_t - 0.001 \Delta SPI_t + 1.47 IR_t$$

Table 8.1: Multiple Regression Analysis –Satellite Model

Variable	Coefficient	t-statistic
C	-12.67***	-3.3574
NPL(-1)	0.87***	14.9351
GDP(-1)	-0.32*	-1.7703
SPI	-0.001**	-2.6834
IR(-2)	1.47***	3.2905
	R^2	97.6%
***: Statistically significant at 99% confidence. **: Statistically significant at 95% confidence. *: Statistically significant at 90% confidence.		

Model Assumptions

In order to estimate the NPLs for 2015 of the assumed changes in the GDP growth, equity prices and interest rates, the following scenarios were assumed:

Table 8.2: Macro Stress Testing Scenarios – Satellite Model

Scenario	GDP% 3.1(2014)
Moderate Macro Stress Scenario	• Decline in GDP growth rate to 2.1% • Decline in equity prices by 50.0% • Increase in interest rates by 100 bp
Medium Macro Stress Scenario	• Decline in GDP growth rate to 1.0% • Decline in equity prices by 75.0% • Increase in interest rates by 150 bp
Severe Macro Stress Scenario	• Decline in GDP growth rate to 0.0% • Decline in equity prices by 100.0% • Increase in interest rates by 200 bp

The shock scenarios were assumed based on the following:
- Moderate Macro Stress Scenario: The GDP growth rate in 2014 minus the smallest deviation from its average for the study period.
- 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 rate, the values were picked based on the assumptions under the relevant instructions of CBJ regarding stress testing and Basel committee regarding the standardized interest rate shock.

Empirical Results

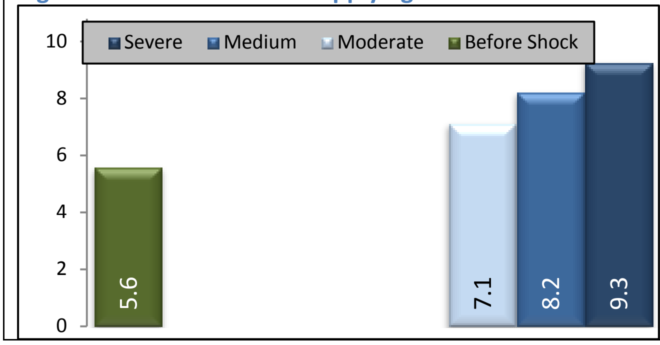
Figure 8.7 and Table 8.3 show the estimated change in the NPL ratio for the year 2015 assuming the occurrence of the three mentioned scenarios. In this regard, the NPL ratio are expected to increase from 5.6% in 2014 to 9.3% in 2015 under the severe macro stress scenario, therefore CAR consequently drops from 18.4% in 2014 to 17.1% in 2015.

Table 8.3: Macro Stress Testing Results for 2015 – Satellite Model

Scenarios	NPLs (2015)*	CAR (2015)*
Moderate Macro Stress Scenario	%7.13	%17.5
Medium Macro Stress Scenario	%8.23	%17.3
Severe Macro Stress Scenario	%9.28	%17.1

* 2014 values of NPL and CAR are 5.6% and 18.4% respectively.

Figure 8.7: NPL Ratio After Applying the Scenarios



Conclusion

Based on the results of various stress tests conducted in this chapter, the banking system is generally capable of withstanding shocks and high risks that leads to increase in non-performing loans as a result of the non-pleasant changes in the economic conditions, as the capital adequacy ratio is going to drop to 17.1% under the severe macro stress scenario. These favorable results are due to the solid banking system in Jordan that enjoys capital levels that are the highest in the MENA region.

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.

تمت بحمد الله

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