

THE RESPONSIBILITY OF CENTRAL BANK OF JORDAN IN MAINTAINING THE JORDANIAN FINANCIAL SYSTEM STABLE

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Abstract - This paper aims to seek the responsibility of the Central Bank of Jordan (CBJ) and how it maintains the Jordanian financial stability especially in the banking sector by using ratios such as the Liquidity Ratio, Capital Adequacy Ratio, and Leverage Ratio. This is by investigating the stability of five selected banks in Jordan and evaluates the impact of the 2008 Global Financial Crisis (GFC) on the Jordanian financial system, in general, and its impact on these selected banks, in particular. The following hypotheses will be tested: Hypothesis (1): Did the GFC affect banks in Jordan, Hypothesis (2): did Jordan banks recover after the GFC, Hypothesis (3): did these ratios (Capital Adequacy Ratio, Liquidity Ratio, Leverage Ratio) help in indicating the strength of the Jordanian banking sector, Hypothesis (4): did Jordan financial stability get stabilized after the GFC, and Hypothesis (5): Did the CBJ role affect the Jordanian banking sector positively. Based on the study results, all these hypotheses have been accepted.

Keywords - Central Bank of Jordan, Stability, Global Financial Crisis.

I. INTRODUCTION

The Central Bank is a separate national authority that controls monetary policy, regulates banks and provides financial services including economic research. The main objectives are to stabilize and maintain the nation's currency, controls and keep unemployment low and prevent increase in inflation. Moreover, Central banks affect economic growth by controlling the liquidity in the financial system. They have many monetary policy tools to achieve these objectives which if achieved would lead to improvement in financial stability. To have efficient financial system Central banks must set a reserve requirement that obligates private banks on how much cash they need to have on hand this reserve is needed in case of any financial problems occur it will prevent them from collapsing (Amadeo, 2016).

Central banks used open market operations to buy and sell securities. This allowed changes to cash on hand without changing the reserve requirement. This tool was used during the financial crisis of 2008. Banks bought government bonds and mortgage-backed securities to stabilize and maintain the banking system. On the other hand central banks must set targets on interest rates they charge their clients that guide rates for loans, mortgages and bonds raising interest rates and slows growth which prevents inflation (Corbo, 2004).

Monetary policy takes about six months for the effect to go through the economy. Banks can misread economic data as the Federal Reserve System in 2006. But if Central banks stimulate the economy too much they can trigger inflation as known that Central banks avoid inflation (Corbo, 2004).

Central banks control their members by requiring sufficient reserves to cover potential loan losses. They are also responsible for ensuring the financial stability and protecting depositors' funds (Amadeo

2016). They also act as private banks which means they process checks and lend money to their members; they also store currency in their foreign exchange reserve. That allows them to affect exchange rates by adding foreign currency to keep its own currency alignment that's also known as "peg" (Amadeo 2016).

The Central Banks are considered as monetary authorities and bank supervisions to all banks. Banks are financial institutions that are given the authority to accept demand deposits and make loans in addition to that banks provide clients and other institutions with financial services these services include providing credit cards and maintaining financial management for each and every account shown in their system, There are many types of banks such as commercial banks, saving banks, investment banks, Islamic banks and much more banks however these ones are the ones everyone is familiar with, starting with commercial bank; Commercial banks are banks that receive money from the public and gives short-term loans to individuals who needs cash, in addition to that commercial banks provide much more services like collecting cheques, keeping money and moving it from one place to another (Pritchard, 2017).

Saving banks are banks that are simply made to create saving habits within individuals. These banks are useful for people with low income, to create a group and the deposits collected from customers are invested in bonds and securities (Pritchard, 2015). On the other hand investment banks are banks that helps businesses work in the financial markets if the owner of a business wants to go public (sell stocks) they should consider going to investment banks. Moreover Islamic banks are banks that unchanged within the principles of sharia (Islamic Law) and its activities and practices are through the development of Islamic economics there is another term for Islamic banking which is "sharia-compliant finance" Sharia prohibits

the approval for specific interest or fees for loans of money it's known as *riba* (Mushtaq,2015).

The Central Banks are responsible to maintain the financial stability. Financial Stability is a state in which the financial system which includes the financial markets and the financial institutional system is a shield to economic shocks and is fit to smoothly fulfill its basic functions, financial stability is one of the most widely discussed topics nowadays, a well- functioning sector ensure financing of activities in society by providing money from savers to borrowers.

Indeed many central banks were created to serve as shield against episodes of financial stability that had been a local disease of the "free banking era", however the establishment of central banks has not made financial stability immune to instability and financial crisis have continued to occur. Financial instability doesn't only affect economy but can be also very costly because of the binding spillover that affects other parts of the economy and this will lead to financial crisis and adverse consequences for the economy (Gaspar,Hatmann, and Sleijpen, 2002).

For this reason, central banks must be well capitalized to ensure financial stability as it can be used as the line of defense when a crisis arises. Central banks could also reduce that systemic risk through improvements in the payment and security settlement system , however that risk can't be completely eliminated that's why all Central banks main objective during a financial crisis is to enclose the damage and limit the impact on the real economy (Gaspar,Hatmann, and Sleijpen 2002)

The first necessary thing to do is to restore calmness in financial markets. As market panics create the identical of financial heart attack by cutting off the flow of credit even to healthy institutions. This develops the damage in the financial system in addition to that central banks must therefore reduce uncertainty that prevents the collapse of financial institutions due to liquidity restrictions. As long as the failure of a systemically important institution, central banks should also prevent the collapse of these even if they are insolvent to keep the financial positions and financial systems stable (Corbo,2004).

The CBJplays a very important role in maintain the financial stability in Jordan. This by The law that is established by the CBJ that promises that the main objective of the CBJ shall be to maintain the monetary financial stability in the Hashemite Kingdom of Jordan.From that day forward the CBJ succeeded the Jordan currency board which had been established in the 1950 (CBJ-financial stability reports, 2014).

This paper aims to investigate whither the CBJ played an important role in maintaining the financial stability in Jordan or not pre, during, and after the 2008 GFC.The methodology will depend on two resources: Primary sources: by gathering information from the CBJ, this will be used by designing an inquiry form

in order to distribute it to the study subjects, and secondary sources: data will be collected from several resources by using scientific references, books, international recourses, CBJ website, and studies published on a specific websites on the internet (e.g. social science research network-SSRN Website).

II. OVERVIEW

The financial system consists of banks and central banks which have the monitory authority over all types of banks and institutions such as commercial banks, financial institutions, saving banks and real estate banks. The Jordanian banking sector is one of the important components that supports the economy as Jordanian banking sectors goals is to earn enough high return on what customers deposit. This sector consists of 26 banks with a joined total of 695 branches throughout the Jordanian kingdom.

2.1. Central Bank of Jordan

The CBJ started its operations on October 1, 1964. Before 1964, the Jordan currency board, which had been established in 1950". The role of the central bank was to maintaining excellent asset deposits against the issue of Jordan dinars as local currency, moreover this means that it had no role in controlling the money supply not even control or supervise banks.

The CBJ ensures the availability of bank notes and coins to meet the needs of the national economy and maintains an adequate inventory of these banks in case of potential losses, in addition to that the CBJ works on maintaining and managing the kingdoms reserves of gold to ensure their safety, liquidity and profitability these reserves are important to keep the Jordanian dinar stable.

The CBJ focuses on improving the capital adequacy ratio and managing profitability, liquidity, solvency and assets. Moreover the CBJ still continues to educate banks employees so that they would keep in pace and not lose track, in addition to that CBJ performs on-site and offsite to make sure that everything is being under control.

Commercial Banks needs to be licensed by the CBJ before they can work and operate in Jordan. Commercial banks must follow and obey the CBJ regulations and must also respect the CBJ activities and practices that set ratios for their liquidity ratios, cash reserves and capital ratios to make them more efficient. In addition to that banks cannot open new branches nor merge with other banks except having the confirmation of the CBJ. The following table shows types of banks in Jordan:

Type of Bank	Listed Banks
Commercial Bank	Arab Bank
Commercial Bank	Arab Banking Corporation (Jordan)

Commercial Bank	Arab Jordan Investment Bank
Commercial Bank	Bank of Jordan
Commercial Bank	Cairo Amman Bank
Commercial Bank	Capital Bank of Jordan
Commercial Bank	Jordan Commercial Bank
Commercial Bank	Investbank
Commercial Bank	Jordan Kuwait Bank
Commercial Bank	Jordan Ahli Bank
Commercial Bank	Societe de General Banque- Jordanie
Commercial Bank	The Housing Bank for Trade & Finance
Commercial Bank	Union Bank
Islamic Bank	Jordan Islamic Bank
Islamic Bank	Jordan Dubai Islamic Bank

Type of Bank	Unlisted Banks
Islamic Bank	Alrajhi Bank
Islamic Bank	Islamic International Arab Bank
Foreign Bank	Standard Chartered
Foreign Bank	Egyptian Arab Land Bank
Foreign Bank	HSBC Bank Middle East
Foreign Bank	CitiBank
Foreign Bank	Rafidain Bank
Foreign Bank	National Bank of Kuwait
Foreign Bank	Banque Audi-Sardar Audi Group
Foreign Bank	Blom Bank
Foreign Bank	National Bank of Abu Dahbi

Source: CBJ (www.cbj.gov.jo)
Table 1. Types of Banks in Jordan

2.2. The Effect of the 2008 GFC on Jordan financial system and the role of CBJ:

Jordan is a small Arabic country its economy is one of the smallest in the region because of its shortage of its natural resources. Furthermore the country is well known for its high unemployment, Jordan's financial system and stability easily gets hit with financial problems this is because Jordan's economy relies on high level of imports. A year before the GFC Jordan economy was doing good in its performance because of some trade links with other countries around the world.

As known, the 2008 GFC started in the United States of America and initially started affecting the banking sector in particular starting from central banks to other smaller banks, however this crisis was global there were some countries that got affected more than

others due to economic relationships with the United States of America.

The main reasons why the GFC occurred is because of high rate of mortgage defaults in the US this defaults occurred due to the excessive mortgage loans given by the Lehman Brothers bank which it was one of the biggest banks in the world so Lehman Brothers bank has given huge amounts of loans to their clients without guarantees so when it was time to repay the loan to the bank no one had liquidity and refused to repay, this is when credit risk and liquidity risk were the main causes for the crisis to occur which have led to a chain that made the whole economy to collapse and be exposed to losses this is what we call systematic risk, it's when the whole economy gets effected and face financial problems (Scott and Gelpert, 2012).

Jordan on the other hand didn't get affected from the crisis when it began however when the crisis began to spread small countries got hit with the crisis but with lower impact than these with huge populations and amount of money. At the first stage of the crisis the Jordanian economic ministry thought that the crisis will bring a positive effect on Jordan's economy however it have caused losses to almost every country worldwide.

The CBJ was aware of the upcoming danger so to protect the banking sector the CBJ had to strict their loan classifications and set tough guidelines and regulations which would minimize the bank's exposure, the CBJ limited the growth of its economy at the expense of long – term stability. Although Jordan did a good reaction against the financial crisis however the situation was not in their hands when the US dollar started to decline and its known that the JOD is pegged to the US dollar which means the Dinar will decline too. To be realistic, the impact of the GFC is like a chain, countries and individuals did get affected but as said before the impact from country to country varies depending on the economy and the openness.

The CBJ have set regulations to the banking sector in Jordan to start obeying Basel III committee in 2018 since the Basel I and Basel II committee have failed to protect against future financial crisis and to keep the financial system efficient and stable in Jordan and all over the world as these standards seem to have some problems in focusing on the risks that may cause financial crisis, so Basel III committee must be followed as soon as possible to avoid future crisis (BCBS, and CBJ-Instruction to Licensed Banks (2011)).

According to Basel Committee rules have the capacity to change the banking sector into more sustainable and stable these set of rules are mentioned in the Basel III committee. At the time being the Basel III committee is not mandatory until 2019 in Jordan however any financial institution can use it before that time if they want to. However when Basel III becomes mandatory in 2019, banks and other

financial institutions that are weak will face difficulties in having sufficient adequate capital due to external factors affecting the business sector causing these financial institutions to be unable to give loans which leads them later on to a decline on their money generating activities thus make them less competitive to stronger banks allowing them to suffer. Increasing the standards and capabilities and the regulations ensures that the risks of the banks collapsing such as Lehman Brothers will never be allowed to occur again (CBJ-Instruction to Licensed Banks (2011)).

The crisis creates a pathway for Central banks to create regulations to avoid what happened in the past especially in the banking sector. The Central banks with support of the Regulators such as the Basel committee introduced the Basel III rules in 2010 to give solutions to the banking sector in lowering risk levels.

The main importance of the Basel III was to fix and correct the original issues in the Capital reserves. The Basel committee was able to enlarge the tier 1 capital that allowed the banks to have an enlarged defense. It is up to the bank to enlarge their financial structures to allow them to become more professional and structural by increasing their capital and reducing costs and try to minimize risks as much as possible. The general requirements of Basel III are: Increase Quality of Capital, Increase short term liquidity coverage, Increase stable long term balance sheet funding, and Strengthened risk capture.

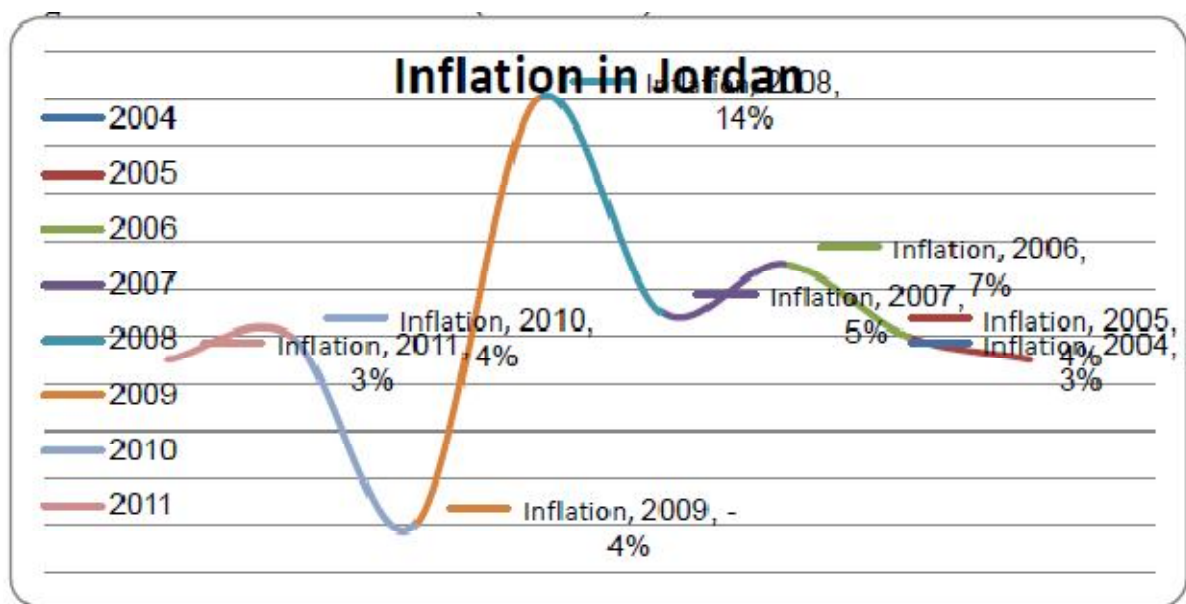
The Crisis that affected the Jordanian economy had two periods: the first period extended from the autumn of 2008 till December 2008 and the second period started from December 2008 till the end of 2011. At the beginning of the crisis, it didn't affect the Jordanian economy due to the isolation of the Jordanian financial sector from the international crisis

which leaves Jordan limited to exposure to the international financial market, which offers protection to Jordan's financial sector that helped in securing other sectors too (CBJ-Financial Stability Report (2012)).

At the first stage of the crisis, the Jordanian economic ministry expected positive effects of the GFC on Jordan's economy, inflation rates were expected to decrease and continuous growth by at least 5% in 2009, these expectations were made due to the decline in oil prices. Moreover, it was expected by the government that the crisis will affect the economic recession which as a result would affect the exports, this is because Jordan depends mostly on other countries so due to the donor countries getting affected by the crisis this means that they will reduce or stop their donations to Jordan. However the CBJ and the banking sector were fully aware of the upcoming danger, which in order to protect and secure the banking sector, the Central Bank has lay down a strict loan allocation rules and provided guidelines, which would reduce the bank's exposure to risk, although CBJ set interest rates at 10.5% for housing loans it limited the range of growth to ensure long term stability (European economy, 2009).

As for the second part of the crisis, the Jordanian Government and the CBJ did control and protect the country's economy because it had the ability to do so and as its said before that the Jordanian banking sector had limited exposure to the global financial market however the crisis did effect many features that are important in the Jordanian economy that keeps it stable such as the inflation rates.

The inflation rate has tripled in Jordan this is due to the increase in fuel and commodity prices. The inflation rates have reached to approximately 14% in the end of 2008. See the following figure.



Source: CBJ (www.cbj.gov.jo)
 Figure 1: Inflation in Jordan (2002-2012)

On the other hand financial crisis affected Exports & imports to the Kingdom of Jordan , since Jordan is a poor-sources country this means that it is an import oriented that imports fuel and oil and due to the crisis we noticed that the oil prices have gone up in 2008 to cost 130\$ per barrel where it was only 23\$ in 2003 , so a report was made that shows how much Jordan is sensitive to oil price fluctuations, however Jordan doesn't only import material it exports also , where Jordan exports chemicals , phosphate and potash these materials are mostly traded to overseas however the price of them have declined. Therefore the CBJ reported that there is a dramatic decline in the potash and phosphate exports where potash exports declined to 43% in 2009 and it grew in 2010 by 42% this shows that only the effect was in the year of the crisis, in addition to the phosphate it also declined in 2009 by 17% and then increased by 21% in 2010 (CBJ-Financial Stability Report (2012)).

III. LITERATURE REVIEW

Allen & wood in 2006 mentioned that financial stability is a complicated technique due to lack of universal identifiable standards in addition to that Stein 2011 studied that financial stability around the world is known as a situation where there are four factors that exist in the financial sector that would affect the financial stability and these factors are the monetary stability by every countries Central bank , employment levels and the country's economic situation , confidence levels that are within the financial sector and last but not least the significant assets movements that are most likely to perform a financial crisis such as asset bubbles.

In order to have a full vision of the impact of the GFC on Jordanian financial stability and how the CBJ have reacted to it in order to minimize losses and manage their financial system in an efficient and effective way that would keep its economy stable this paper reviews some of the related topics on other countries to show if the middle east countries did generally get affected by the GFC or not and to show that even in Jordan.

According to Hussein's study in 2009, the impact of financial crisis on Egypt economy. He noticed that the stock prices have decreased because of excessive selling by the foreign investors which affected the local investors in addition to that , Orozco and Lesaca (2009) studied few Arabic stock markets and noticed also that it have been affected by the crisis, such markets were the Saudi Arabia , Kuwait , Qatar and Abu Dhabi with almost 50% while they realized that other Arabic stock markets were approximately unaffected such as morocco , Lebanon and Jordan which tells us that these countries have been less exposed to losses and have been a slight change and effect for their financial stability.

And as a result of financial inconsistency in the financial sector which was a result from the GFC in

2008 , the financial sector increased the need for a greater level of regulation by the Central bank , specially the banking sector which was the main and greatest levels of financial carelessness. This action has been taken by the Basel Committee on banking supervision which a bunch of regulation that all financial sectors must obey its mission is to strengthen the performance of the financial sector by having a thick international capital reserve in addition to that to have rules to measure liquidity.

Abdo&Amroin 2010 discussed how the GFC affected the lack of job opportunities in Jordan and high unemployment rates, Jordanians who are working overseas are categorized as skilled, educated, professional employees where in the gulf region they have high demand on them,as remittances is the most important benefit of labor migration in addition to that they are very important source of foreign currency . in Jordan remittances GDP is almost 20% however due to GFC it declined from 20% in 2005 to 14% in 2009. This reduction of remittances influences the government and increase the unemployment rate, so as a result this caused the Jordanians working abroad to decline causing stress on the employment rate in Jordan causing the Jordanian economy to have some sort of difficulties. So in year 2010 the CBJ have reported an increased 2% in 2010 on remittances to help Jordanian government to overcome the economic losses and difficulties that country have suffered (Abdo & Amro 2010).

Abu aliqah and Al Rfou(2010) studied the impact of the GFC on consumer behavior in Jordan and how consumers did affect the financial stability in Jordan so according to Abu Aliqah and Al Rfou they have found that there was a percentage of 58% of the people involved were aware of the GFC and its effects on the consumer behavior , 62% of these people have reported that it is true that GFC did affect the expenditure in addition to that they found that 58% have reported that the GFC caused inflation as we said before moreover all of these have affected the Jordanian financial stability and had a severe impact on the Jordanians economy.

In addition to that based on Aliqah & Al Rfou 2010 they have found that due to the financial crisis shortages , Jordanians have found reasonably priced substitute goods and are buying essential goods instead of luxury goods to meet their needs however there were some respondents with about 71% have disagreed to move from consumption to saving , a true fact is that remittances help Jordanian families to have a better lifestyle this is because its known that Jordanians usually go abroad to get a job and provide a better lifestyle to their families.

According to Zeitun & Benjelloun(2012), they studied and determined the efficiency of banks in Jordan and the results showed that a huge number of the banks in Jordan didn't accomplish the required

efficiency score due to inefficient itemization of resources. This is when the banks were obligated to use the international standards, Jordanian banks scored very low. Zeitun & benjelloun showed that this result was due to the impact of the financial crisis that affected Jordan's banking sector as a whole.

The main goal of the liquidity coverage ratio is to enhance the short-term liability, this is to ensure that banks have enough adequate reserve of assets which can be converted to cash easily to pay and meet the banks short term obligations, moreover this leads banks to be alerted and protected by unpredictable risks caused by either systematic or unsystematic risks (Basel Committee on banking supervision, 2013)

According to Bateni, Vakilifard & Asghari 2014 they have found that Basel III required banks to raise the level of capital after the GFC have occurred if these requirements were not met then banks are exposed to a high risk of having severe lossess. Basel III , hence this is basic in checking market risk , credit risk and exchange risks and exchange risks. Bateni,

Valkilifard & Asghari have studied the leverage ratio , which is very important and required by Basel III to ensure that banks are having backups and to ensure that banks doesn't have any shortages.

IV. METHODOLOGY AND OUTCOMES

This paper is quantitative research. The data will consists of collecting data of 5 banks in Jordan, the information collected was influenced by some ratios that determines the reason behind why Jordanian banks were affected by the GFC.This process will be consisting of calculations of four important ratios, these ratios are: capital adequacy ratio, leverage ratio and coverage ratio as seen below(CBJ-Financial Stability Report (2012)).

The Capital adequacy ratio is important as it protects investors who have deposited money to the banks as well as to develop better financial systems globally as this ratio sucks in the losses when a banks is needed to stop its operations and when it is liquidated.

Capital Adequacy Ratio % = Regulatory Capital / (Credit Risk + Market Risk + Operational Risk)

=12%

The Capital adequacy ratio is important as it protects investors who have deposited money to the banks as well as to develop better financial systems globally as this ratio sucks in the losses when a banks is needed to stop its operations and when it is liquidated.

Leverage Ratio % = $\frac{\text{Tier 1 cap.}}{\text{On \& Off balance sheet exposures}}$

Leverage ratio is that measurement that shows how much debt (loans) are in the capital and the ability of banks to meet their financial obligations.

Liquidity Ratio % = $\frac{\text{High liquid assets}}{\text{total net liquidity outflows over 30days}}$ **=100%**
Overall Liquidity ratio = Total Assets / Total Liabilities

The liquidity ratio is another important ratio that is needed to ensure that banks has adequate assets that covers short term obligations that commonly arise (keister&bech, 2012). So banks are required to have liquid assets in these situations which are capable of covering 100% of any short term problems. Some examples of these assets that banks need to have are either cash , treasury bonds etc. This ratio became compulsory after the year 2015 however some backs started using it back since 2011 immediately after the recovery of the GFC.

The calculation above will be applied on 5 randomly selected banks in Jordan to the year ended 2014. See the following table:

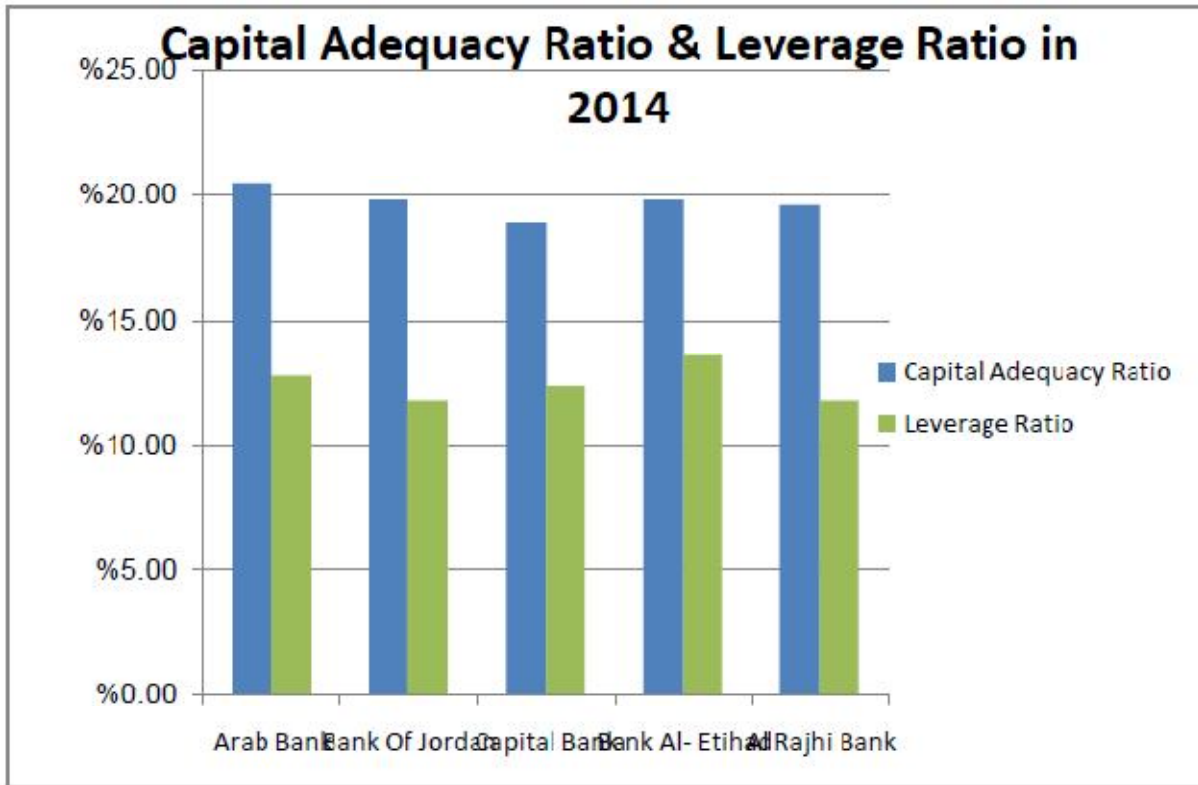
Name of Bank	Leverage Ratio	Liquidity Ratio	Capital Adequacy Ratio
Arab Bank	12.8%	155.4%	20.5%
Bank Of Jordan	11.8%	152.1%	19.8%
Capital Bank	12.4%	155.0%	18.9%
Bank Al-Etihad	13.6%	147.8%	19.8%
Al Rajhi Bank	11.8%	143.6%	19.6%

Source: (Imadkutum and Khaled Al Jaberi 2015)
 Table 2: Leverage Ratio, Liquidity Ratio and Capital Adequacy Ratio

The capital adequacy ratio & leverage ratio for the chosen banks in 2014 only is shown in the figure

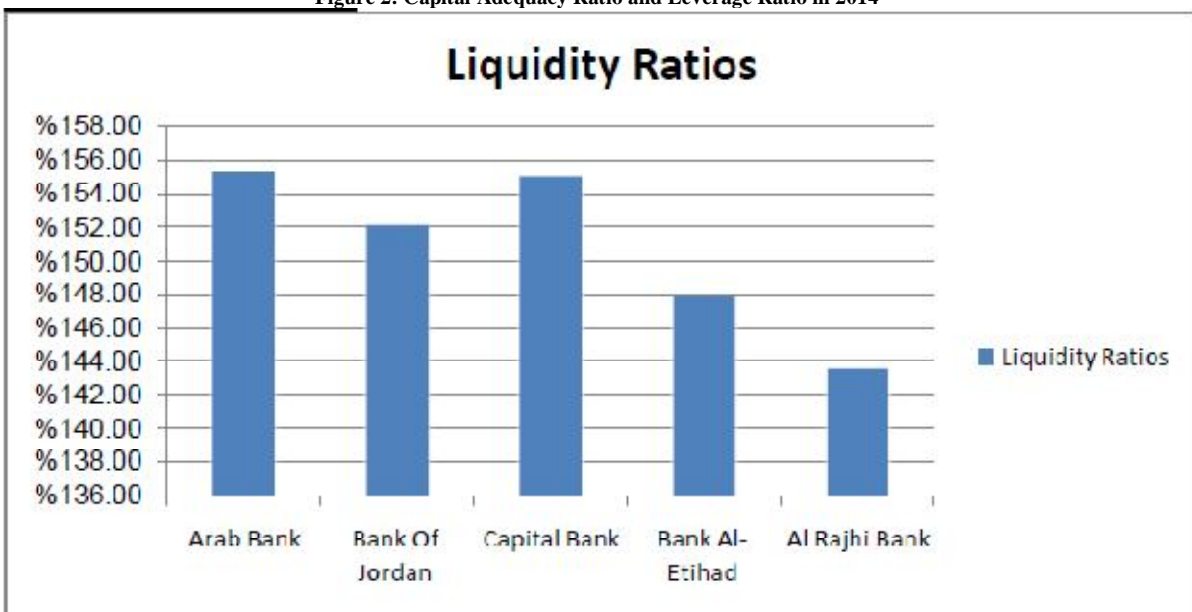
above having the highest capital adequacy ratio is the arab bank with a percentage of 20.5% where the lowest bank was the capital bank with a percentage of 18.9% with a slight difference between them with 1.5% where the other banks (bank of Jordan, Bank al Etihad & Rajhi) were all having an approximately the same percentages with the ratios seen above.

The Leverage ratio in the figure above shows that Bank Al- Etihad had the highest leverage ratio of them 4 other banks with a percentage of 13.6, Arab Bank is the second bank with 12.8% followed by Capital bank 12.4% & al Rajhi bank , Bank of Jordan with 11.8



Source: CBJ (www.cbj.gov.jo)

Figure 2: Capital Adequacy Ratio and Leverage Ratio in 2014



Source: CBJ (www.cbj.gov.jo)

Figure 3: Liquidity Ratio

Liquidity ratio shown in the figure above shows that the highest bank was the Arab bank with percentage of 155.4% and the lowest bank was al Rahji bank with a percentage of 143.6% and the other banks are ranging

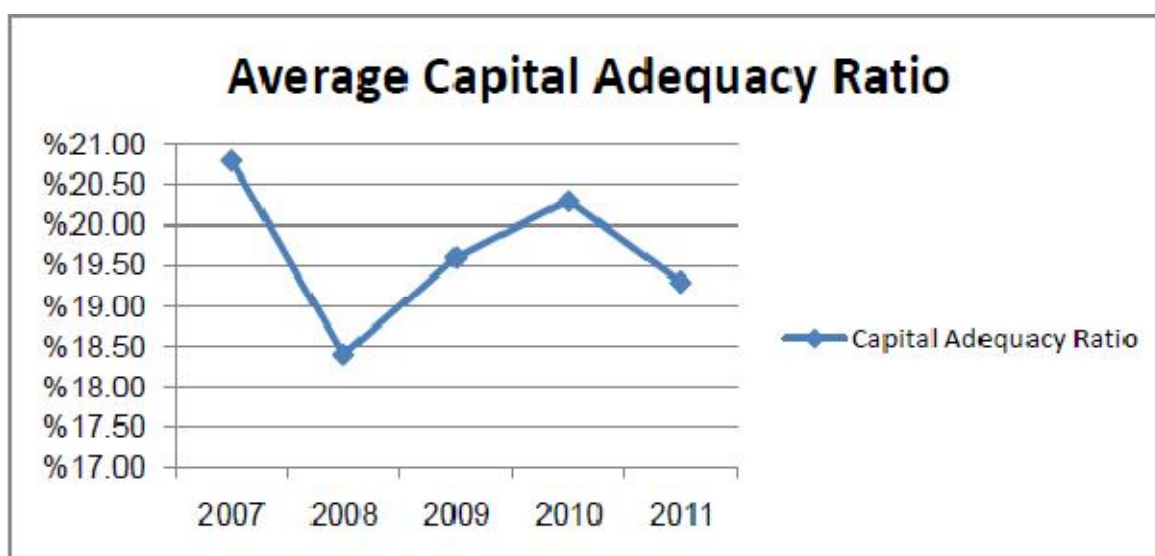
within these two percentages. these results show that the Arab bank and the capital bank are having liquid assets that is needed in situations where these banks are capable of meeting their short term obligations without facing any difficulties. The other mentioned banks may have slight difficulties especially the capital bank and bank of Jordan which they seem to have a low liquid assets that may cause difficulties in meeting their obligations.

2011	2010	2009	2008	2007	Ratio
19.3%	20.3%	19.6%	18.4%	20.8%	Capital Adequacy Ratio
152.9%	161.4%	158.1%	141.2%	157.5%	Liquidity Ratio
13.1%	13.1%	13.0%	12.9%	13.3%	Leverage Ratio

Source: (Imadkutum and Khaled Al Jaberi 2015)

Table3: The average Ratios (2007-2011).

The data in the table above shows the average percentages derived from table 2, the average was added up and divided by the number of banks mentioned.

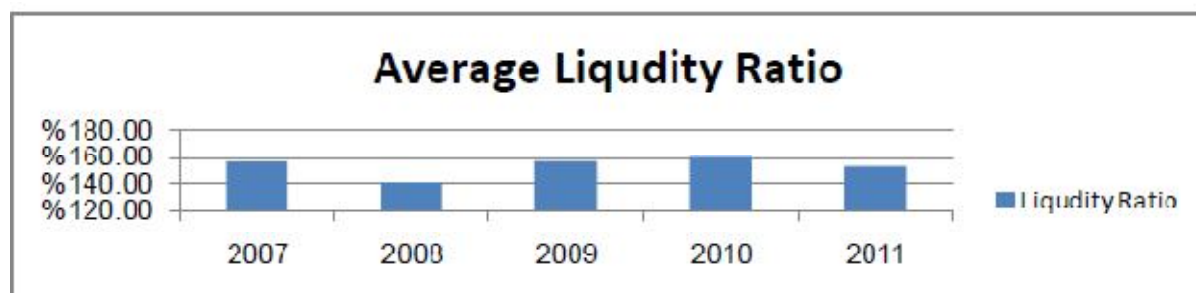


Source: CBJ (www.cbj.gov.jo)

Figure 4: Average Capital Adequacy Ratio

Capital adequacy ratio is a measure of a bank's capital, it is expressed as a percentage of a bank's risk weighted credit exposures the CAR is used to protect depositors and promote the stability and efficiency of financial systems in 2007 the CAR was 20.8% this percentage started declining between 2007 and 2008 until it reached 18.4% this is due to GFC so the financial systems in Jordan started lacking protection

to depositors rights which then got resolved by the CBJ by setting new rules and regulations to Jordanian banks so it would recover the Jordanians economy so CAR started increasing reaching 20.3% in 2010 which at which was a great accomplishment by CBJ to reach that amount of percentage after a severe impact to the whole economy.



Source: CBJ (www.cbj.gov.jo)

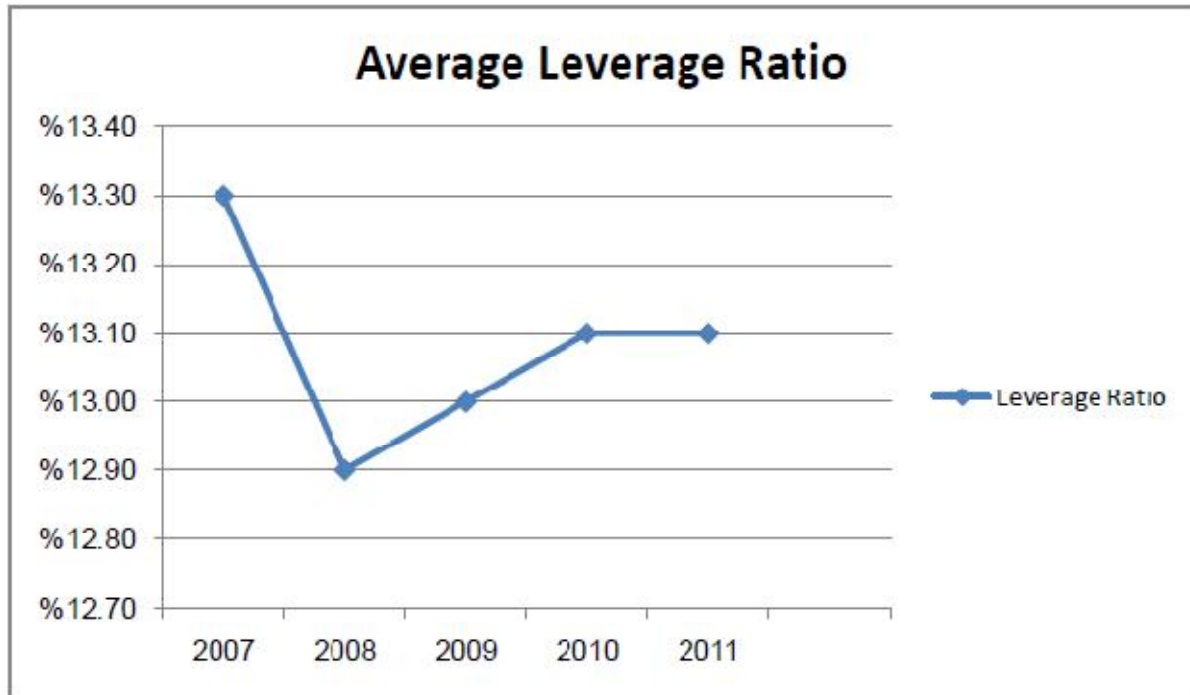
Figure 5: Average Liquidity Ratio

Liquidity ratio is simply the ratio between liquid assets and the liabilities of a bank, as liquidity is

really important to meet the short term obligations for any bank or institution so as for the graph above in

2007 the average liquidity ratio for the mentioned banks was 157.5% which was a satisfying number to meet required obligations and maintain stability however in 2008 there was a sharp decline in the ratio due to the GFC that occurred and affected the financial systems as a whole with a 141.2% with difference of 16.3% before and during the crisis

which have caused a severe bankruptcy and the banking sector have suffered losses for sure. In 2009 the liquidity ratio started increasing reaching to a maximum of 161.4% in 2010 where the end of the financial crisis of 2008 ended recovering and building up new regulations to make sure that lessons have been learnt.



Source: CBJ (www.cbj.gov.jo)
 Figure 6: Average Leverage Ratio

Leverage ratio is that measurement that shows how much debt (loans) are in the capital and the ability of banks to meet their financial obligations. As shown in the chart above in 2007 Jordanian banks has an average of 13.3% of using debt to finance its assets moving down to 2008 this ratio has decreased to 12.9% this decrease was due to the crisis that occurred and the inability of other large banks worldwide to lend other banks in the Jordanian kingdom which affected the economy however it was a good step for the banks to stand up on their legs without having a high leverage ratio making it less riskier to bankrupt , however later in 2009-2011 the CBJ publishes rules and regulations to all banks to start stabilizing the financial system in banks so by doing that the ratio between debt to equity must be stabilized the leverage ratio has increased slightly to make a balance between debt to equity ratio to make the Jordanian banks system stable.

The hypothesizes of this paper were: Hypothesis (1): Did the GFC affect banks in Jordan, Hypothesis (2): did Jordan banks recover after the GFC, Hypothesis (3): did these ratios (Capital Adequacy Ratio, Liquidity Ratio, Leverage Ratio) help in indicating the strength of the Jordanian banking sector, Hypothesis (4): did Jordan financial stability get

stabilized after the GFC, and Hypothesis (5): Did the CBJ role affect the Jordanian banking sector positively.

Based on the above discussion and methodology, the above hypothesizes can be accepted or rejected as it can be seen in the following table.

Hypothesis No.	Details	Accept/Reject
1	Did the GFC affect banks in Jordan?	Accepted
2	Did Jordan banks recover after the GFC?	Accepted
3	Did these ratios (Capital Adequacy Ratio, Liquidity Ratio, and Leverage Ratio) help in indicating the strength of the Jordanian banking sector?	Accepted
4	Did Jordan financial stability get stabilized after the GFC?	Accepted
5	Did the CBJ role affect the Jordanian banking sector positively?	Accepted

Table 4: Hypotheses Tested Results

CONCLUSION

The Central Bank is a separate national authority that controls monetary policy, regulates banks and provides financial services including economic research. The main objectives are to stabilize and maintain the nation's currency, controls and keep

unemployment low and prevent increase in inflation. The main duty of CBJ is to maintain financial stability in Jordan. Based on the ratios mentioned in the paper, it has found that the fluctuations and changes of (capital adequacy ratio, liquidity ratio, and leverage ratio) show that there have not been particular problems in the Jordanian financial system because of highly liquid and adequately capitalized banks. Moreover, the CBJ had an important role in managing and maintaining the Jordanian financial stability during the crisis. The hypotheses of this paper were discussed: Hypothesis (1): Did the GFC affect banks in Jordan, Hypothesis (2): did Jordan banks recover after the GFC, Hypothesis (3): did these ratios (Capital Adequacy Ratio, Liquidity Ratio, Leverage Ratio) help in indicating the strength of the Jordanian banking sector, Hypothesis (4): did Jordan financial stability get stabilized after the GFC, and Hypothesis (5): Did the CBJ role affect the Jordanian banking sector positively.

Based on the methodology results, these hypotheses have been accepted.

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