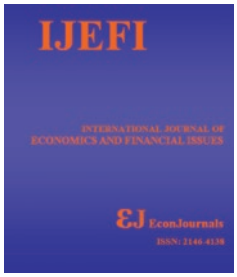

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The Impact of the 2008 Global Financial Crisis on the Jordanian Banking Sector

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ABSTRACT

Key aspects of the global financial crisis (GFC) need to be uncovered and comprehended further in order to investigate its impact on the wider global financial systems. The paper evaluates the impacts on the Jordanian banking sector since the financial market in Jordan is still underdeveloped and banks are the most important source of finance in the country. This would help to determine levels of stability and security within the Jordanian banking system. This paper aims to: (1) Investigate the roots and consequences of the 2008 GFC, and (2) explore whether this crisis affected the banking sector in Jordan or not. Data used from a sample of three Jordanian commercial banks during 2008 and 2010. The paper found that the crisis did not have major impacts on the Jordanian banking sector.

Keywords: Global Financial Crisis, Banking Sector, Financial System, Jordan
JEL Classifications: G01, G1, G2

1. INTRODUCTION

Banking is a major sector of any economy and dedicated to the holding of financial assets for people and institutions and investing those assets as leverage to generate wealth. These activities are regulated by government agencies. The banking sector is a network or a group of institutions that provides financial services. Banking systems perform a number of different functions, depending on its network of institutions (Shrestha, 2013). The banking sector in Jordan is considered one of the most important parts of the Jordanian financial system and the economy as a whole. Despite the impacts of the Arab Spring on the Arab region and its financial institutions, the banking sector in Jordan proved steadiness maintaining existence and growth. Jordan's Banking sector is made up of twenty six banks; fifteen banks are listed in the Amman Stock Exchange (ASE) (Central Bank of Jordan [CBJ], 2012; and Musmar and Hudairi, 2013).

The global financial crisis (GFC) affected the broader banking system in 2008 leading to major failures in banks both in USA and overseas, huge losses to business and a global economic recession. In the US alone, there were large commercial banks including Citibank, Bank of America and Wachovia Corporation, as well as 140 other commercial banks that failed or were bailed out. The failure was not limited to banks and mortgage lenders; it also included the giant US insurer, American International Group (AIG) and car manufacturers. The scale of losses was staggering with increasing unemployment rate in the US reaching up to 10% and job losses of more than 7.2 million. Banks, which were mainly concerned of insolvency, suspended some transactions, sending the economy into a severe recession. The global recession had a major impact not only on the US economy, but also on many other global economies including Jordan (Akinbami, 2010).

The 2008 GFC is considered by many economists the worst financial crisis since the "Great Depression" of the 1930s. In various areas around the world, the real estate market also suffered to a great extent, resulting in foreclosure, evictions, and extended unemployment. The crisis which is also considered as a credit and liquidity crisis, played a very important role in the failure of many businesses, declines in consumer's wealth estimated in trillions of U.S. dollars, and a recession in economic activities leading to an extended global recession. The financial crisis brought down the monetary system and the banking sector in the US and resulted in a

significant impact on the economies of many countries worldwide (Iannuzzi and Berardi, 2010).

2. OVERVIEW

As the cost of borrowing dropped, so did the cost of the American Dream. Falling mortgage rates and decreasing interest rates for real estate loans, fueled a new housing real estate explosion across the US. Millions of buyers flooded the market, purchasing townhouses, condos, and single-family homes they might not have been able to afford before lowering the mortgage rates. At the same time, the rise of demand for real estate was driving the values of homes higher, making property owners feel richer (Carney, 2012; Scott and Gelpern, 2012).

As home values increased as well as home ownership, some Americans were left out because they could not afford to purchase real estate or did not qualify for a loan. But that was not for long. Before the boom in the real estate industry, they were not making enough money or their credit score was not high enough to get them a mortgage. And since lenders were trying to stay on the safe side and minimize their risk, lenders would not agree to give these potential borrowers a loan, since their risk of not paying was too high. In a mission to cash-in on the real estate explosion, many non-bank lenders and banks relaxed their strict and long-standing rules. They lowered the standards borrowers required to meet. They targeted the potential customers who in the past were unable to get mortgages because they did not meet the standards (Sikorski, 2011; Marshall, 2009).

Mortgages had become huge profit-generators for investment banks (or at least that is what they thought), which purchased the loans from other banks and non-bank lenders, packaged them all together, segmented them, and put them up for sale as securities (IMF, 2006). In theory, as long as the owners of the home paid their mortgages, these securitized loan investments, which are also known as structured products, were somewhat safe. But, these lenders did not take into consideration that theory and practice were two very different things (Smolo and Mirakhor, 2010; Marshall, 2009). Investors bought the securities with very little or no knowledge at all they contained parts of very toxic loans made to high-risk borrowers, loans that could default on houses that could eventually go into foreclosure. The main question arises here, why didn't investors in the United States and abroad know about the amount of risk of these securities? Because credit rating agencies gave them very high ratings, in many cases the valuable and appreciated AAArating (Musmar and Hudairi, 2013).

If anything goes wrong with those securities, some investors made sure to buy insurance policies which are called the credit default swaps (CDSs). These CDSs were issued by companies such as AIG. A CDS almost guaranteed an investor would not lose the money they invested, even on the riskiest asset, guarantees a payment even if the underlying security defaulted. By 2005, with expectations that home prices would still continue in increasing and therefore homeowners would continue paying their mortgage payments, AIG assumed the CDSs business was fail-safe (Simkovic, 2013).

As demand for mortgages by consumers continued to increase, so did the demand by institutional investors for mortgage-backed securities (the most common form: Collateralized debt obligations, known as CDOs). Flush with billions, hedge funds and sovereign wealth funds gobbled up these CDOs. But the AAA credit ratings that helped attract investors were misleading. They covered the underlying risk of those securitized subprime mortgages (Simkovic, 2013; Scott and Gelpern, 2012).

At the same time, several of those substitute mortgages designed to help borrowers afford the house of their dreams began to haunt them. Property holders who predicted to refinance their loans found it hard or even impossible to get a new mortgage. Those borrowers and many others unexpectedly faced significantly higher monthly payments. Many of the customers were often shocked to learn of the raise, having never understood completely the terms of their adjustable rate loans. In many cases, borrowers did not even read the fine print. In other cases, borrowers deceived and misled lenders or falsified their income to get an agreement on the mortgage. And, others basically, put too much trust in their mortgage broker or loan officer. Then, enormous numbers of homeowners faced a cruel new reality: Higher monthly mortgage payments on houses worth much less than they had estimated (Simkovic, 2013).

If they could not make the larger, new payments, homeowners were encountering several, often very hard, choices. They could put their property up for sale, and even if they were able to sell it, it would perhaps be sold at a loss, just to break free themselves from the growing mortgage. Or, they could stay and try to negotiate a compromise with their lender. Or, they could fail to make their payments, leading to defaults, short sales, and foreclosure (which is the worst case scenario). Unfortunately, in some cases, borrowers were stretched out so thin, so highly leveraged, that they had no other option but to default on their mortgages. By mid-2006, the increasing wave of defaults was creating an enormous pool of toxic assets just sitting on the balance sheets of banks and in the portfolios of investors all over the world (Neuhauser, 2015; Riaz, 2009).

The ripple effects of the real estate starts slowing down on main street and starts reaching Wall street, especially firms that invested a lot in subprime mortgages. The unexpected collapse of two Bear Stearns hedge funds in June 2007 started the beginning of the panic between institutional investors, as well as hedge funds, investment banks, and sovereign wealth funds. Their greedy and voracious appetites for securitized mortgage products is about to hit a wall and come to an end (Scott and Gelpern, 2012). In July 2007, 3 weeks after the Bear funds went out of action, Standard and Poor's (S and P) lowered the ratings on billions of dollars in mortgage backed securities S and P. In making the change, S and P clearly failed to judge correctly the risks of these investments, which led to failing to protect investors by failing to effectively assess the risk of CDOs which were made up of subprime mortgage backed securities.

Despite what happened with the bear hedge fund and the S and P downgrade, the stock market continued its upward movement

through the summer of 2007. The issues of the subprime mortgages were bubbling below the surface of the investment community, but have not made it to the front page of the news, just yet. On Monday, March 10, Bear stock starts dropping, as rumors rise that the investment bank is at risk of collapsing under all the weight of massive exposure to extremely risky subprime mortgage related investments. Bear desperately tries to deny the rumors and tries to stop the bleeding (Allen and Snyder, 2009). Representatives from Bear started attending press conferences and interviews trying to convince investors that the firm will survive. 6 months later, just a few days away from the 7th anniversary of the 9/11 attacks, Lehman Brothers collapsed into bankruptcy on the 15th of September. Just like Bear, risky mortgage assets were the huge problem. But this time, not like the Bear Stearns collapse 6 months earlier, there was no one to rescue, no buyer, and no white knight. Behind the scenes, the feds tried pushing other banks to buy Lehman. But the firm proved too toxic (Mayer, 2001; Marshall, 2009).

The Lehman insolvency had serious flow on consequences to Lehman's creditors which in turn creating market uncertainty and effectively a freeze on interbank loans. When Lehman declared bankruptcy, its prime brokerage in the U.K. went bankrupt (Weitzner and Darroch, 2009). This meant that any hedge fund whose securities were hypothec by Lehman was now an unsecured creditor. This led to massive losses across many hedge funds as their securities that had been posted as collateral disappeared in the system. After Lehman Brother's bankruptcy, the crisis spread to the insurance giant AIG. It was now on the edge of failing, too. AIG bet really big on CDSs, selling many insurance policies on CDOs made from subprime mortgage securitizations. When the subprime mortgages defaulted (failed to pay), making all those CDOs worth much less, AIG was stuck with billions of dollars in liabilities. All those policy-holders who bought the CDSs, wanted their insurance payments for the failed CDOs. In order to prevent an international financial catastrophe, the U.S. government took an 80% stake in AIG (Scott and Gelpern, 2012).

3. THE CAUSES OF THE 2008 GFC

The existing literature presents several channels through which monetary policy might have added to the build-up in the financial imbalances. The majority of these are believed to have worked through policy rates that regulators kept low for a long time. Loose monetary policy (a low short-term rate) has:

1. Reduced the cost of wholesale funding for intermediaries, causing those intermediaries to increase leverage (Adrian and Shin, 2008);
2. Caused banks to take even more risks, including liquidity and credit risks (Borio and Zhu, 2008);
3. Increased demand and supply for credit (mortgages), causing asset's (houses) prices to get much higher.

Global imbalances increases are connected with a larger dispersion of current account positions in almost all countries and larger net flows of capital between countries. At an individual country level, a current account deficit is in line with net capital inflows, as foreign investors build up claims on the local economy. Supervision and regulation of the financial system are two major means to avoid crises, by controlling moral hazards and discouraging extreme risk-taking on the part of financial institutions. Insufficient supervision and regulations are major reasons to have caused the GFC. Many researchers have payed attention on the impact of financial regulation on banks performance. Also policy makers have introduced many of these regulations in a bid to create a healthy environment that initiates competition and improves banking sector proficiency and efficiency (King 2010). However, although there are numerous studies have tackled the impact of financial regulations on banks performances, yet the overall impact of financial regulation turned to be ambiguous. King has examined the relationship between the build-up of financial imbalances and differences in the strength of the supervisory and regulatory regime across countries. The author concluded that "*Capital flows provided the fuel which the developed world's inadequately designed and regulated financial system then ignited to produce the firestorm that engulfed us all*" (King, 2013).

Between 1998 and 2006, the cost of ordinary house in USA has increased by 124%. Within two decades till the year 2001, the range of home prices was from 2.9 to 3.1 which is the double of the average household income. This ratio has escalated to 4.6 in 2006, which caused a housing bubble in many homeowners refinancing their mortgage at much lower interest rates, or those who financed homes buyers by taking double mortgages which were supposedly secured by the price appreciation. Many of the CDOs enabled many financial institutions to obtain investor funds to finance subprime lending. This had extended the real estate bubble and had generated high fees. This essentially places cash payments from multiple mortgages or other debt obligations into a single pool from which specific securities draw in a specific sequence of priority. By 2008, U.S. house prices had declined by more than 20% from their average 2006 prices. Due to this price declined, most borrowers could not refinance to avoid the higher payments associated with rising interest rates and began to default (Hsiao et al., 2010).

USA has lowered the interest rates to encourage borrowing. This was done to soften the effects of the collapse of the September 2001 terrorist attacks consequences, as well as to combat a perceived deflation risk. In 2002 it was apparent that most banks credits were directed towards real estate instead of business investment. Moreover, some empirical studies have used data from advanced countries which revealed that excessive credit growth contributed greatly to the severity of the crisis. The high and rising U.S. current account deficit has caused a downward pressure on interest rates which peaked along with the housing bubble in 2006 (Bernanke, 2007).

Predatory lending it is the practice of speculative lenders, enticing borrowers to enter into "unsafe" or "unsound" secured loans for inappropriate purposes. These loans were written into widely detailed contracts, and were swapped for more expensive loan products on closing days. The advertisements state that lower interests (1% or 1.5%) would be charged and consumers would be put into an adjustable rate mortgage in which the interest charged was greater than the amount of interest paid. This has created a negative amortization at which the consumers might not

notice until long after the loan transaction had been consummated (Weitzner and Darroch, 2009).

Deregulation Financial experts argued that the USA regulatory framework did not keep pace with financial innovation, such as the increasing volume of shadow banking operations, derivatives and off-balance sheet financing. A study suggests that bank regulation based on the Basel accords encouraged unconventional business practices and contributed to or even reinforced the financial crisis. In other cases, laws were changed or enforcement weakened in parts of the financial system (Slovic, 2012).

In the period 2001-2005 most financial institutions became highly leveraged, their appetite for risky investments and reducing their resilience in case of losses has increased. Much of this leverage was achieved using sophisticated financial instruments such as off-balance sheet securitization and financial derivatives. This has made it difficult for creditors and regulators to monitor and unable to reduce financial risk levels (Simkovic, 2009).

Innovative financial products have reinforced the complexity and multiplied the number of actors connected to a mortgage, such as mortgage brokers, specialized originators and concerned firms. Due to the increasing distance from the underlying asset these agents relied more and more on indirect information such as appraisals and due diligence checks by other party organizations, and most importantly the computerized models of rating designed by specialized agencies and risk management (Levene and Galitsky, 2005).

4. THE IMPACT OF 2008 GFC ON THE JORDANIAN FINANCIAL SYSTEM

According to Ahid and Augustine (2012), the effect of the 2008 GFC on Jordan can be noticeable as being driven mostly by the nation's high reliance on nourishment and fuel imports, which make it profoundly defenseless against changes in sustenance and oil costs. Likewise, whether this crisis has influenced Jordanian abroad laborers or it has lessened the quantity of sightseers, or diminished the remote stipends (Ahid and Augustine, 2012). The saving money segment in Jordan was moderately secluded from the effect of the emergency, because of its confinement to the worldwide business sector and due to the rebuild taken by the legislature and the CBJ (CBJ, 2012). It can be seen that the impact of the crises resembles a cycle that will influence everybody, taking into account the data about the buyer conduct in Jordan after the emergency, it can be inferred that the crises affected the purchasers in Jordan; the fundamental reasons of this influence are abridged as taking after:

a. The lessening of settlements has influenced Jordanians' acquiring power.
b. The crises has prompted build the oil and item costs which drove thus to diminish the acquiring control as well.
c. The expansion in the unemployment rate prompted build neediness rates.

At long last, nations ought to take in great lessons from this crises keeping in mind the end goal to have the capacity to ensure them later on. Besides, they ought to precede with the change projects to pull in the remote financial specialists. The year 2009 demonstrates that the nation overcame of the crises sways and the economy is secured well by a few legislative strategies.

Strangely, there is an expansion in the foreign ownership in managing the banking sector in Jordan; it has expanded essentially in 2007, up to half as toward the end of June (CBJ, 2012). This increment demonstrates more trust in the soundness of the managing an account division and its position. While the keeping money area in Jordan is viewed as sound and all around directed, the Jordanian's legislature has improved the trust in banks as of late by moving to completely ensure bank stores amid the worldwide money related crises until the end of 2009. Saving money part in Jordan has not been truly influenced by the worldwide financial crises because of its restricted presentation to global property and value markets (European Commission, 2010). The restricted introduction with worldwide money related markets has bulwarked it from the immediate effect of the worldwide monetary emergency. The legislature of Jordan has ensured all bank stores until the end of December 2009, which leaded to console the financial specialists in this area. Keeping in mind the end goal to manage the effects of the crises in Jordan, the CBJ cut loan fees three times up to April 2009 bringing the benchmark rate to 5.25% (the most minimal since August 2005). In the meantime, the CBJ decreased banks' store necessities to 7% (contrasted and 10% in October 2008) with a specific end goal to help liquidity (CBJ, 2012; and European Commission, 2010).

5. METHODOLOGY

The sample of the study consisted of the following three banks:

- Bank Al-Etihad ("UBSI");
- Jordan Kuwait Bank ("JOKB"); and
- Capital Bank of Jordan ("EXFB").

The main goal of the methodology is to highlight and analyze the impact of the Subprime 2008 GFC on the performance of the Jordanian banking sector between 2008 and 2010. As such, a detailed historical financial analysis exercise was conducted based on a selected sample of operating commercial banks in Jordan that are listed in the ASE. Table 1 shows general information about the banks selected to be part of the sample.

Using this sample, this research conducted an in-depth financial analysis in order to test the following hypothesis:

H_0: The 2008 GFC did have big impact on the Jordanian banking sector.

H_1: The 2008 GFC did not have big impact on the Jordanian banking sector.

Bank Al-Etihad, previously known as Union Bank, is a Jordan-based financial and banking services institution, established in 1978 as a public shareholding company, with a paid-up capital of JDs 129,000,000. Bank Al-Etihad today is one of the fast growing banks in Jordan. Total deposits today are in excess of JD 1.6 Billion and market share is around 5.4% (Bank Al-Etihad, 2010, 2012).

Table 1: General information about the selected Banks

Bank name	Ticker symbol	Last trading price	Paid-Up capital (In Million JD)	Establishment date	Closing price (JD)	Net profit FY 2015A (In Million JD)
Bank Al-Etihad	UBSI	August 10,2016	129.0	1978	1.83	28.8
Jordan Kuwait Bank	JOKB	August 10,2016	100.0	1976	3.66	39.4
Capital Bank of Jordan	EXFB	August 10,2016	200.0	1995	0.90	2.3

Source: Bank Al-Etihad; Jordan Kuwait Bank; Capital Bank of Jordan

Bank Al-Etihad operates a growing network of 40 branches, in addition to 74 ATMs, a central exchange unit. Bank Al-Etihad is also a board member and a strategic partner with the National Bank in Palestine owning a 10% share. It also fully owns a brokerage firm "Etihad Brokerage" which was established in (2006)."

Bank Al-Etihad financed a number of vital and infrastructure projects that hold long term benefits to the country and its citizens in sectors such as electricity, energy, renewable energy, higher education, tourism, water desalination and water treatment. It also offers a variety of products and services that serve corporate clients, SMEs, and targeted segments of retail. In addition to provide treasury and investment services.

In 2007, Bank Al-Etihad engaged McKinsey and Company, one of the world most reputable banking consultants, to support its continuing growth and new business diversification strategy, During 2011 the bank managed to successfully complete and launch several strategic projects including the implementation of a new core banking system, the launch of a new brand identity and a new branch concept– new retail experience. In addition to the enhancement of various products and services offerings, the bank was the first in Jordan to launch a full-fledged mobile banking application for smart phones (Bank Al-Etihad, 2016).

Jordan Kuwait Bank (JKB) is a Jordanian public shareholding company, was founded in 1976 as a joint investment by Jordanians, Kuwaitis and other Arab investors and has successfully evolved in to a major player in the Jordanian banking system. JKB currently operates a domestic network of 56 branches and offices distributed throughout Jordan in addition to two branches in Palestine and a branch in Cyprus, in addition to 105 ATMs.

JKB wholly owns Ejara Leasing company, holds a controlling share of more than 50% in the United Financial Investments Co. (Jordan) and a 10% stake in Algeria Gulf Bank (Algeria). The JKB's paid-up capital was gradually increased from JD 5 million in 1976 to JD 100 million in 2008.

JKB was the first bank in Jordan to launch Internet banking and many other electronic delivery channels. Its hi-tech infrastructure, well distributed branches network, widely spread ATMs, efficient e-banking products and services, Internet banking facilities that provide access to external payment systems; all topped with a unique customer- friendly atmosphere, have enabled the Bank to further enhance its image as the best client-focused bank in Jordan and substantiated its slogan: "More than just a bank."

JKB management capitalizes on the strong business and ownership relations with Kuwait Projects company (holding) - Kuwait and its banking arm, Burgan Bank Group. Jordan Kuwait Bank is committed to achieving the best results and the highest growth rates year after year, it shall remain the trusted partner and advisor to all its clients extending expertise and providing assistance at all times. It shall not spare any effort to support promising sectors of the economy and genuine investment projects that have long term prospects and contribute towards the prosperity of Jordan. JKB provides an array of products and services to its clients that include: Corporate credit facilities, Corporate commercial services (trade finance), Private banking, Consumer loans, Credit cards, Bank assurance, Deposit accounts, Foreign Exchange and Money Market operations, Margin trading, Brokerage services through UFICO (JKB subsidiary) (JKB, 2016).

Capital Bank has grown to become one of the top financial institutions in Jordan, offering the Jordanian market a comprehensive set of commercial and investment banking services tailored to the needs of individuals and corporate clients alike. Specialized in trade finance activities, Capital Bank's mission is to deliver reliable and flexible solutions to accommodate its clients' time constraints and business schedules. Capital Bank offers its corporate clients a wide variety of services from corporate finance, to commercial finance, to asset management, to securities brokerage, and market research through Capital Investments, a wholly owned subsidiary of Capital Bank with a paid-up capital of JD 10 million (USD 14 million) that acts as the Bank's investment arm. The Bank also offers unique services in the Iraqi market through the National Bank of Iraq, in which it owns a controlling stake. In addition to its corporate financial services, the Bank also provides its individual customers retail services such as credit cards, personal loans, car loans, home loans, competitive interest rates and flexible terms on different categories of personal bank accounts.

In order to determine the impact of the subprime mortgage crisis on the performance of the selected sample during the period from 2008 to 2010, the financial ratios used are highlighted in the following sections.

5.1. Liquidity Ratios

Liquidity ratios measure a company's ability to pay debt obligations and its margin of safety through the calculation of metrics including the current ratio, quick ratio and operating cash flow ratio. Current liabilities are analyzed in relation to liquid assets to evaluate the coverage of short-term debts in an emergency. Bankruptcy analysts and mortgage originators use

liquidity ratios to evaluate going concern issues, as liquidity measurement ratios indicate cash flow positioning (Wall, 2016).

5.2. Current Ratio

The current ratio is a liquidity ratio that measures a company's ability to pay short-term and long-term obligations (Wall, 2016). To gauge this ability, the current ratio considers the current total assets of a company (both liquid and illiquid) relative to that company's current total liabilities (Wall, 2016).

The formula for calculating a company's current ratio, then, is:

Current ratio = Current Assets/Current Liabilities

5.3. Cash Ratio

The cash ratio is an indicator of a company's liquidity that further refines both the current ratio and the quick ratio by measuring the amount of cash equivalents or invested funds there are in current assets to cover current liabilities (Wall, 2016).

Cash Ratio = (Cash+Cash Equivalents+Invested Funds)/Current Liabilities.

5.4. Profitability Ratios

Profitability ratios are a class of financial metrics that are used to assess a business's ability to generate earnings compared to its expenses and other relevant costs incurred during a specific period of time. For most of these ratios, having a higher value relative to a competitor's ratio or relative to the same ratio from a previous period indicates that the company is doing well (Wall, 2016).

5.5. Return on Assets (ROA)

ROA is an indicator of how profitable a company relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. ROA is calculated by dividing a company's annual earnings by its total assets, ROA is displayed as percentage. Another name for it is "Return on Investment."

Return on Assets (ROA) = Net Income/ Total Assets (Wall, 2016)

5.6. Return on Equity (ROE)

ROE is the amount of net income returned as a percentage of shareholder's equity. ROE measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested; this ratio is expressed as percentage.

Return on Equity (ROE) = Net Income/Shareholder's Equity (Wall, 2016).

5.7. Leveraging Ratios

Companies rely on a mixture of owners' equity and debt to finance their operations. A leverage ratio is any one of several financial measurements that look at how much capital comes in the form of debt (loans), or assesses the ability of a company to meet financial obligations.

5.8. Non-performing Loan (NPL)

A NPL is the sum of borrowed money upon which the debtor has not made his scheduled payments for at least 90 days. A NPL is either in default or close to being in default. Once a loan is nonperforming, the odds that it will be repaid in full are considered to be substantially lower.

A Nonperforming Loan (NPL) = Accumulated Bad Debt Provision/ Gross Receivables

5.9. Debt to Equity (D/E) Ratio

The D/E ratio is another leverage ratio that compares a company's total liabilities to its total shareholders' equity. This is a measurement of how much suppliers, lenders, creditors and obligors have committed to the company versus what the shareholders have committed.

Debt to Equity Ratio = Total Debt/Total

5.10. Application of the Financial Ratios

5.10.1. Bank Al Etihad

The following Table 2 shows the ratio analysis for Bank al-Etihad:

Current ratio decreased by 16.3% between the years 2008 and 2009 and decreased by 1.7% between the years 2009 and 2010.

Cash ratio decreased by 6.3% between the years 2008 and 2009 and increased by 41.1% between the years 2009 and 2010.

ROA decreased by 0.3% between the years 2008 and 2009 and increased by 0.3% between the years 2009 and 2010.

ROE did not change between the years 2008 and 2009 and increased by 2% between the years 2009 and 2010.

NPLs increased by 1.7% between the years 2008 and 2009 and increased by 1.1% between the years 2009 and 2010.

Debt to equity ratio decreased by 4.4% between the years 2008 and 2009 and decreased by .2% between the years 2009-2010.

5.10.2. Jordan Kuwait Bank

The following Table 3 shows the ratio analysis for Jordan Kuwait Bank:

Current ratio decreased by 27.8 between the years 2008 and 2009 and increased by 5.1% between the years 2009 and 2010.

Cash ratio decreased by 5.2% between the years 2008 and 2009 and decreased by 4.4% between the years 2009 and 2010.

ROA decreased by 0.3% between the years 2008 and 2009 and increased by 0.4% between the years 2009 and 2010.

ROE decreased by 4.3% between the years 2008 and 2009 and increased by 0.5% between the years 2009 and 2010.

NPLs increased by 2.4% between the years 2008 and 2009 and increased by 3.7% between the years 2009 and 2010.

D/E ratio decreased by 0.8% between the years 2008 and 2009 and decreased by 4.8% between the years 2009 and 2010.

5.10.3. Capital Bank of Jordan

The following Table 4 shows the ratio analysis for Capital Bank of Jordan:

Current ratio decreased by 23% between the years 2008 and 2009 and decreased by 4.8% between the years 2009 and 2010.

Cash ratio increased by 7.8% between the years 2008 and 2009 and increased by 8.5 between the years 2009 and 2010.

ROA decreased by 1.5% between the years 2008 and 2009 and increased by 0.3% between the years 2009 and 2010.

ROE decreased by 6.9% between the years 2008 and 2009 and increased by 1.8% between the years 2009 and 2010.

NPLs increased by 3.1% between the years 2008 and 2009 and decreased by 0.1% between the years 2009 and 2010.

D/E Ratio decreased by 25.9 between the years 2008 – 2009 and decreased by 3.5% between the years 2009 – 2010.

6. FINDINGS

6.1. Al-Etihad Bank

6.1.1. Liquidity ratios

Current ratio: The recorded decrease in UBSI's Current ratio in 2009 was mainly due to the increase in total current liabilities by 30.0% which overcame the increase in total current assets during that year (which increased by around 13.0%). It should be noted that the increase in total current assets may have been negatively affected by the more conservative policies adopted by UBSI's management regarding loans granting procedures (gross loans recorded an increase by 17.4% in 2009 compared to an increase by 29.3% in 2008). On the other hand, the increase in current liabilities was mainly associated with the increase in the total customer deposits due within 1 year.

Table 2: Ratio analysis – Bank Al-Etihad (2008-2010)

Item (JD)	2008	2009	2010
Net Income	15,609,002	16,313,890	21,332,951
Gross Loans	615,106,036	721,994,413	757,492,691
Current assets	962,076,086	1,087,290,502	1,208,013,518
Total assets	1,134,469,444	1,456,573,683	1,539,404,608
Cash and cash equivalents	346,914,202	387,652,940	463,452,080
Current liabilities	768,810,321	999,152,005	1,127,532,668
Total liabilities	915,951,627	1,227,304,199	1,304,219,194
Total loans obtained	24,141,627	15,458,392	15,324,908
Total deposits	653,175,345	833,418,799	912,444,926
Total equity	218,517,817	229,269,484	235,185,414
Accumulated bad debt provision	9,769,013	23,995,989	33,106,281
Ratio (%)	2008	2009	2010
Current ratio	125.1%	108.8%	107.1%
Cash ratio	45.1%	38.8%	41.1%
ROA	1.4%	1.1%	1.4%
ROE	7.1%	7.1%	9.1%
NPLs	1.6%	3.3%	4.4%
D/E ratio	11.1%	6.7%	6.5%

Source: Bank Al-Etihad. ROA: Return on assets, ROE: Return on equity, NPLs: Non-performing loans, D/E: Debt to equity

Table 3: Ratio analyses – Jordan Kuwait Bank (2008-2010)

Item (JD)	2008	2009	2010
Net income	49,075,991	44,871,942	52,213,883
Gross loans	1,253,262,329	1,089,148,849	1,170,473,395
Current assets	1,768,714,702	1,664,829,338	1,659,305,402
Total assets	2,062,791,204	2,138,860,149	2,083,965,605
Cash and cash equivalents	530,944,411	554,486,110	448,709,457
Current liabilities	1,483,041,115	1,812,775,914	1,712,924,842
Total liabilities	1,812,634,554	1,846,114,125	1,753,236,725
Total loans obtained	15,104,151	15,104,151	1,354,139
Total deposits	1,193,543,511	1,244,572,472	1,304,914,023
Total equity	250,156,650	292,746,024	330,728,880
Accumulated bad debt provision	15,315,485	38,946,343	42,883,221
Ratio (%)	2008	2009	2010
Current ratio	119.3	91.8%	96.9%
Cash ratio	35.8	30.6	26.2
ROA	2.4	2.1	2.5
ROE	19.6	15.3	15.8
NPLs	1.2	3.6	3.7%
D/E ratio	6.0	5.2	0.4

Source: Jordan Kuwait Bank. ROA: Return on assets, ROE: Return on equity, NPLs: Non-performing loans, D/E: Debt to equity

Table 4: Ratio Analyses – Capital Bank of Jordan (2008-2010)

Item (JD)	2008	2009	2010
Net income	15,250,169	1,338,383	5,149,968
Gross loans	616,285,776	615,642,512	725,291,459
Current assets	807,761,708	858,638,673	915,170,671
Total assets	983,546,499	1,074,603,476	1,204,769,089
Cash and cash equivalents	161,213,065	267,034,730	224,412,956
Current liabilities	598,011,571	766,297,415	852,838,345
Total liabilities	780,384,954	866,532,873	990,661,137
Total loans obtained	107,351,969	55,884,352	50,143,794
Total deposits	530,204,260	679,981,283	754,717,021
Total equity	203,161,545	208,070,603	214,107,952
Accumulated bad debt provision	18,926,224	38,141,918	44,429,750
Ratio (%)	2008	2009	2010
Current ratio	135.1	112.1	107.3
Cash ratio	27.0	34.8	26.3
ROA	1.6	0.1	0.4
ROE	7.5	0.6	2.4
NPLs	3.1	6.2	6.1
D/E ratio	52.8	26.9	23.4

Source: Capital Bank of Jordan. ROA: Return on assets, ROE: Return on equity, NPLs: Non-performing loans, D/E: Debt to equity

UBSI's Current Ratio in 2010 remained at their recorded level in 2009 at 107.1%.

Cash ratio: UBSI's Cash Ratio in 2009 recorded a decrease reaching 38.8% relative to 45.1% in 2008. Meanwhile, UBSI's Cash Ratio recorded an increase in 2010 reaching 41.1%.

6.1.2. Profitability ratios

ROA: The recorded decrease in UBSI's ROA in 2009 was mainly due to the increase in total assets by 28.4% which overcame the increase in total net income during that year (which only increased by 4.5%). Meanwhile, the recorded increase in UBSI's ROA in 2010 was mainly attributed to the improvement in net income by 30.8%.

ROE: UBSI's ROE remained the same in 2009 at 7.1%. Meanwhile, the recorded increase in UBSI's ROE in 2010 was mainly attributed to the improvement in net income by 30.8% which overcame the increase in total equity during that year (which increased by 2.6%).

6.1.3. Leveraging ratios

NPLs ratio: The recorded increase in UBSI's NPL in 2009 was attributed to the increase in accumulated bad debt provision by 145.6%. UBSI's NPL in 2010 recorded an increase reaching 4.4%.

D/E ratio: The recorded decrease in UBSI's D/E in 2009 was mainly attributed to the decrease in total loans obtained by 35.9%. UBSI's D/E recorded a minimal decrease in 2010 reaching 6.5%.

6.2. Jordan Kuwait Bank

6.2.1. Liquidity ratios

Current ratio: The recorded decrease in JOKB's current ratio in 2009 was mainly due to the increase in total current liabilities by 22.2%. Total current assets recorded a decrease by 5.8% mainly due to the more conservative policies adopted by JOKB's management regarding loans granting procedures (gross loans recorded a decrease by 13.1% in 2009). On the other hand, the increase in current liabilities was mainly associated with the increase in the total customer deposits due within 1 year. The recorded increase in JOKB's current ratio in 2010 was mainly due to the decrease in total current liabilities by 5.5% which overcame the decrease in total current assets during that year (which decreased by around 0.33%).

Cash ratio: JOKB's cash ratio in 2009 was decreased reaching 30.6% relative to 35.8% in 2008. Furthermore, JOKB's cash ratio recorded another decrease in 2010 reaching 26.2%.

6.2.2. Profitability ratios

ROA: The recorded decrease in JOKB's ROA in 2009 was mainly due to the decrease in net income by 8.6%. Meanwhile, the recorded increase in JOKB's ROA in 2010 was mainly attributed to the improvement in net income by 16.4% associated with the increase in gross loans by 7.5% during that year. ROE: The recorded decrease in JOKB's ROE in 2009 was mainly due to the decrease in net income by 8.6%. Meanwhile, the recorded minimal increase in JOKB's ROE in 2010 was mainly attributed to the improvement in net income by 16.4% associated with the increase in gross loans by 7.5% during that year.

6.2.3. Leveraging ratios

"NPLs" ratio: The recorded increase in JOKB's NPL in 2009 was attributed to the increase in accumulated bad debt provision by 154.3%. JOKB's NPL in 2010 remained at their recorded level in 2009 at 3.7%.

"D/E" ratio: JOKB's D/E in 2009 remained at their recorded level in 2008. However, JOKB's D/E in 2010 recorded a significant decrease reaching around 0.4%. This was mainly attributed to the decrease in total loans obtained by around 91.0%.

Thus, looking into the numbers and financial ratios conducted in this research, the effect of the GFC on the Jordanian banking sector began in 2009. This effect has been noticed on the performance of the sample used in this research, and on the performance of the

operating companies in Jordan particularly on banks (Central Bank), although there was some kind of impact, but the GFC did not affect Jordan drastically, The banking sector in Jordan was to a certain extent isolated from the impact of the GFC, due to its limitation to the global market and due to the restructure taken by the government and the CBJ there was also no failure of key businesses and enterprises in Jordan. Therefore, hypothesis H_0 is rejected.

6.3. Capital Bank of Jordan

6.3.1. Liquidity ratios

Current ratio: The recorded decrease in EXFB's current ratio in 2009 was mainly due to the increase in total current liabilities by 28.1% which overcame the increase in total current assets during that year (which increased by around 6.3%). It should be noted that the increase in total current assets may have been negatively affected by the more conservative policies adopted by EXFB's management regarding loans granting procedures (gross loans recorded a decrease by 0.1% in 2009). On the other hand, the increase in current liabilities was mainly associated with the increase in the total customer deposits due within 1 year. Despite of the increase in total gross loans in 2010 by around 17.8%, EXFB's current ratio in 2010 recorded a decrease reaching 107.3% which was mainly attributed to the abovementioned reasons.

Cash ratio: The recorded increase in EXFB's cash ratio in 2009 was mainly due to the decrease in total gross loans by 0.1% associated with the more conservative policies adopted by EXFB's (Capital Bank of Jordan, 2009).

6.3.2. Profitability ratios

ROA: The recorded decrease in EXFB's ROA in 2009 was mainly due to the sharp decrease in net income by 91.2%. Meanwhile, the increase in EXFB's ROA in 2010 was mainly attributed to recorded improvement in net income by 284.8% associated with the increase in gross loans by 17.8% during that year.

ROE: The recorded decrease in EXFB's ROE in 2009 was mainly due to the sharp decrease in net income by 91.2%. Meanwhile, the increase in EXFB's ROE in 2010 was mainly attributed to recorded improvement in total net income by 284.8% associated with the increase in gross loans by 17.8% during that year.

6.3.3. Leveraging ratios

NPLs ratio: The recorded increase in EXFB's NPL in 2009 was attributed to the increase in accumulated bad debt provision by 101.5% as well as the decrease in total gross loans by 0.1%. EXFB's NPL in 2010 remained at their recorded level in 2009 at 6.1%.

D/E ratio: The recorded decrease in EXFB's D/E in 2009 was mainly attributed to the decrease in total loans obtained by 47.9%. EXFB's D/E recorded a decrease in 2010 reaching 23.4% mainly resulted from the decrease in total loans obtained by 10.3% during that year.

7. CONCLUSION

The banking sector is the major sector of any economy and dedicated to the holding of financial assets for people and institutions and investing those assets as leverage to generate wealth. The GFC affected the broader banking system in 2008 leading to major failures in banks both in USA and overseas, huge losses to business and a global economic recession.

This paper aimed to cast a light on the roots and consequences of the 2008 GFC as well as evaluate whether or not the GFC had an impact on the Jordanian banking sector. In order to achieve this objective, this paper analyzed three commercial banks in Jordan; (Bank Al-Etihad, Jordan Kuwait Bank, and the Capital Bank of Jordan) between the years 2008 and 2010. The focus was drawn on the banking sector in specific since the Jordanian financial market is still under development and banks are the main source of finance giving rise to the problems of catastrophic collapse of the financial system.

Financial ratio analysis has been performed in order to evaluate the effects of the GFC on the banking sector. The findings revealed that the effect of the GFC on the Jordanian banking sector began in 2009. This has been noticed on the performance of the sample organizations used, nevertheless, the impact was not substantial due to the restructuring taken by the government and the CBJ. Therefore, hypothesis H_0 (H_0 – The GFC affected the Jordanian banking sector) was rejected and hypothesis H_1 (H_1 – The GFC did not affect the Jordanian banking sector) was accepted.

Future research can depend on the results of this paper as it is one of few studies which attempt to evaluate the impact of the 2008 GFC on the Jordanian banking system. Moreover, this paper is of an expected value for researchers as it provides a discussion of the impact of the crisis based on evidence from selected Jordanian banks to evaluate the stability of the sector. Future research can extend both; the sample size in order to obtain more informative results and the study time span for the purpose of shedding light on the long term impacts of this crisis.

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