

The Effect of Financial Market on Major Financial Intermediaries The Case of Jordanian Financial Market

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Abstract

The aim of this paper is to examine the impact of the Jordanian financial market on major financial sectors (such as the Banking Sector) and show the relationship that connects Banks within the financial market. To achieve this goal, this paper uses a sample of Five Commercial Banks listed in Amman Stock Exchange. Therefore, this paper will clarify how these Banks operate during the 2008 Global Financial Crisis and how they minimize the risk during and after the crisis by evaluating the financial positions of these Banks from the period 2003 until 2013. This will clarify the different procedures of dealing with obstacles of managers for the bank.

Keywords: the Jordanian Financial System, the Jordanian Banking System, the Amman Stock Exchange, the 2008 Global Financial Crisis.

1. Introduction

The 2008 Global Financial Crisis (GFC) hit the broader banking system in September and October 2008 leading to bank collapses in USA and overseas,¹ huge losses to business, the financial industry and consumers and a global recession (Payne, 2013). In the US alone in addition to the failure or bailout of the large investment banks of Merrill Lynch, Bear Stearns, Morgan Stanley and Lehman Brothers, there were the very large commercial banks including Citibank, Bank of America and Wachovia Corporation as well as 140 other commercial banks that failed or were bailed out. There was also the failure of large residential mortgage lenders the best known of which were Freddie Mac and Fannie Mae. The failure was not limited to banks and mortgage lenders; it also included the giant US insurer, American International Group (AIG), and car manufacturers General Motors and Chrysler. The scale of these losses was staggering with unemployment in the US reaching 10% with job losses of more than 7.2 million (Markham, 2010).

The 2008 GFC played a significant role in the failure of key businesses, declines in consumer wealth estimated in trillions of US dollars, and a downturn in economic activity leading to the 2008–2009 global recession and contributing to the European sovereign-debt crisis. The active phase of the crisis, which manifested as a liquidity crisis, can be dated from the mid of 2007, when BNP Paribas terminated withdrawals from three hedge funds citing due to a complete evaporation of liquidity. The insurance industry got into the game by trading in —Credit Default Swaps (CDS)—in effect, insurance policies stipulating that, in return for a fee, the insurers would assume any losses caused by mortgage-holder defaults.

What began as insurance, however, turned quickly into speculation as financial institutions bought or sold credit default swaps on assets that they did not own. The insurance system played an important supporting role in the GFC by virtue of the role played by financial guarantee insurance in wrapping, and elevating the credit standing of, complex structured products and thus making these products more attractive to investors and globally ubiquitous.

¹Such as Lehman Brothers in the USA and Northern Rock in the UK.

Moreover, the narrowly avoided collapse of American International Group (AIG Inc.), viewed by some as the world's largest insurance group consisting of a global financial service holding company with seventy one U.S. based insurance companies and 176 other financial service companies, contributed to the severity of the market turmoil in September 2008 (Schich,2008). Insurance market has a key role in the pooling, management, and transfers of risks in the economy and, in some countries, increasingly play a role in the long-term savings and retirement incomes of individuals. The 2008 GFC highlighted the linkages of the insurance sector with the financial system and the broader economy.

2. Literature Review

The 2008 GFC had a great impact on the financial markets in 2008. Nour and Sharabati in their 2014 study state that the global crisis is silently saying the world is global, and anything happened in one country (especially giant country) will affect the whole world. Every person everywhere will be affected by anything going on the earth, as whole world get the benefit from the development of technology (transportation, communication and others), everybody will get harm from disasters and crisis anywhere. 11th September 2001 and its consequences was the first example of spreading the damage, while 2008 financial crisis was the second example for globalizing harm and damage. What is next? What people should do to prevent the next disaster or crisis? How we will reduce its impact on us? We should be ready for it. Like all previous cycles of booms and busts, the seeds of the subprime melt down were sown during unusual times. In 2001, the U.S. economy experienced a mild, short-lived recession. Although the economy nicely withstood terrorist attacks, the bust of the dotcom bubble, and accounting scandals, the fear of recession really preoccupied everybody's minds. To keep recession away, the U.S. Federal Reserve Bank lowered the Federal funds rate 11 times - from 6.5% in May 2000 to 1.75% in December 2001. In June 2003, the Fed lowered interest rates to 1%, the lowest rate in 45 years, thus creating a flood of liquidity in the economy.

Cheap money, once out of the bottle, always looks to be taken for a ride. Subprime borrowers wanted to realize their life's dream of acquiring a home. More home loans, more home buyers, more appreciation in home prices. It wasn't long before things started to move just as the cheap money wanted them to. Banks decided to repackage real estate loans into Collateralized Debt Obligations (CDOs) and pass on the debt to other financial institutions. Soon a big secondary market for originating and distributing subprime loans developed. The trouble started when the interest rates started rising and home ownership reached a saturation point. From June 30, 2004, onward, the Fed started raising rates so much that by June 2006, the Federal funds rate had reached 5.25%, a rate which remained unchanged until August 2007. In August 2007 the financial market could not solve the GFC on its own and the problems spread beyond the United States borders. The interbank market froze completely, largely due to prevailing fear of the unknown amidst banks (Bordo, M and Landon Lane, J, 2010). The GFC's unique issues called for both conventional and unconventional methods, which were employed by governments worldwide. In a unanimous move, central banks of several countries resorted to coordinated action to provide liquidity support to financial institutions.

The idea was to put the interbank market back on its feet (World Bank Report, 2009). This financial turmoil, which started with the sub-prime mortgage crisis in the United States and whose effects clearly became global in mid-2007 with the collapse of several large international hedge funds and the near-collapse of a major industrial bank in Germany, followed by the breakdown of interbank lending markets in August 2007, has had important, continued impacts on the economy, including the insurance sector. Events took a turn for the worse when, during the second half of 2008, the GFC exploded into a global credit crunch following the collapse of major global financial institutions. By the end of 2008, the world economy had rapidly entered a phase of globally synchronized slowdown and, in the first quarter of 2009, headed towards a global recession. The speed at which the world economy had fallen victim to the recessionary wave of financial turmoil in the United States and Europe caught everyone by surprise. In the second quarter of 2009, some signs were emerging indicating that the worst might be over following the large scale counter-cyclical policy packages put in place by a number of larger developed and emerging market economies together with their massive liquidity injections into banking systems to mitigate the scale and depth of the recession. Yet, enormous damage has already been inflicted on the real sector activities resulting, in particular, in a worldwide contraction of industrial production due to the severe global credit crunch and fall in world trade unprecedented in the post-war era (Nissanke, 2010).

The ensuing recession officially became, by April 2009, the second longest since the Great Depression. Following a fall of 2.1% in the first quarter of 2009, gross domestic product in the OECD area stabilized in the second and third quarters according to preliminary estimates (Jones, 2009). The GFC rapidly developed and spread into a global economic shock, resulting in a number of European bank failures, declines in various stock indexes, and large reductions in the market value of equities and commodities. Many European financial institutions were purchased by corporate and institutional investors globally. Derivatives such as credit default swaps also increased the linkage between large financial institutions. Moreover, the de-leveraging of financial institutions, as assets were sold to pay back obligations that could not be refinanced in frozen credit markets, further accelerated the solvency crisis and caused a decrease in international trade. Some developing countries that had seen strong economic growth saw significant slowdowns (Dirk Willem te Velde, 2009). Arab World were far less severely affected by the credit crunch. With generally good balance of payments positions coming into the GFC or with alternative sources of financing for their large current account deficits, such as remittances, Foreign Direct Investment (FDI) or foreign aid, Arab countries were able to avoid going to the market in the latter part of 2008. This group is in the best position to absorb the economic shocks (World Bank report, 2009).

The insurance system played an important supporting role in the GFC by virtue of the role played by financial guarantee insurance in wrapping, and elevating the credit standing of, complex structured products and thus making these products more attractive to investors and globally ubiquitous. In addition, the narrowly avoided collapse of AIG Incorporated (AIG Inc.), viewed by some as the world's largest insurance group consisting of a global financial service holding company with seventy one U.S. based insurance companies and 176 other financial service companies, contributed to the severity of the market turmoil in September 2008. Furthermore, growing corporate insolvencies and a negative credit watch outlook caused important dislocation and retrenchment in trade credit insurance markets, which added considerable stress to business-to-business transactions and increased liquidity pressures on firms in an already liquidity-stressed environment, and thus aggravating the effects of the economic crisis.

The 2008 GFC began as the U.S. —subprime crisis in the summer of 2007 spread to a number of other advanced economies through a combination of direct exposures to subprime assets, the gradual loss of confidence in a number of asset classes and the drying-up of wholesale financial markets. In this process it came to expose —home-grown financial imbalances in a number of advanced economies, typically characterized by an overreliance on wholesale funding sources by the banking system and asset bubbles in residential property markets. There is still no full agreement among policymakers and researchers on what caused the build-up of financial imbalances globally. While most commentators concede that supervision and regulation were lacking with hindsight and efforts to strengthen regulation are well underway, strong disagreement persists on whether it was overly accommodative monetary policy from 2001 that fuelled the build-up (Taylor, 2007). Some researchers argued that crisis may have been a combination of accommodative monetary policy and growing global imbalances that caused the build-up. But even if this were to be so, an empirical determination of these factors' relative contribution remains an important and unfinished task (Obstfeld and Rogoff, 2009).

Merrouche and Nierin 2010 empirically investigated the drivers of financial imbalances ahead of the GFC. They found that three factors may have contributed to the build-up of financial imbalances: (1) rising global imbalances (capital flows), (2) monetary policy that might have been too loose, (3) inadequate supervision and regulation. Researchers found that the build-up of financial imbalances was driven by capital inflows and an associated compression of the spread between long and short rates. Gwinner and Sanders in 2008 discussed some of the key characteristics of the U.S. subprime mortgage boom and bust, contrasts them with characteristics of emerging mortgage markets, and makes recommendations for emerging market policy makers. The GFC has raised questions in the minds of many as to the wisdom of extending mortgage lending to low and moderate income households. It is important to note, however, that prior to the growth of subprime lending in the 1990s, U.S. mortgage markets already reached low and moderate-income households without taking large risks or suffering large losses. In most emerging markets, mortgage finance is a luxury good, restricted to upper income households. As policy makers in emerging market seek to move lenders down market, they should adopt policies that include a variety of financing methods and should allow for rental or purchase as a function of the financial capacity of the household (Gwinner, and Sanders, 2008). Yulia and Hemertin 2007 analyzed the quality of subprime mortgage loans by adjusting their performance for differences in borrower characteristics, loan characteristics and house price appreciation since origination.

Researchers find that the quality of loans deteriorated for six consecutive years before the GFC and that securitizers were, to some extent, aware of it. They provide evidence that the rise and fall of the subprime mortgage market follows a classic lending boom-bust scenario, in which unsustainable growth leads to the collapse of the market. Problems could have been detected long before the crisis, but they were masked by high house price appreciation between 2003 and 2005 (Yulia and Hemert, 2007).

3. Regional Significance

3.1. The Impact of the 2008 GFC on Arab Economies

The Arab economies to the GFC and the consequent to the recession in the economies of most developed countries in 2008 have varied in main channels to spread the effects of the GFC through which the Arab countries. According to the nature of their economies and the degree of openness and its connection to the global economy resulted in direct effects the crisis on the Arab states varying from one country to another according to the degree of development in the financial and banking sector and also the extent of directness to the global average, and how these countries deal with the global markets for capital. Moreover, most of the indicators of Arab stock markets sharply dropped leading to losses in the banking sector in the Arab countries the first and the fastest crisis has affected the real estate sector, where the decline in demand for the residential and commercial units in several Arab countries, especially in real estate development projects. In addition, the impact of the 2008 GFC on Arab economies was through developments in macroeconomic indicators and indicators of financial depth.

National significance

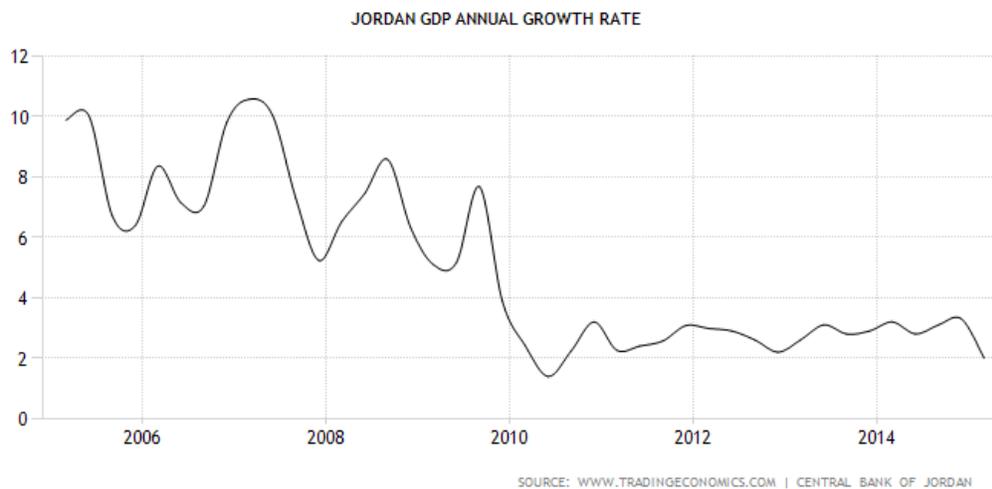


Figure 1

Table 1

Actual	Previous	Highest	Lowest	Dates	Unit	Frequency
2.00	3.30	10.58	-1.11	1993 - 2015	percent	Quarterly

It should be noted that, like other Arab countries, Jordan is a small Arabic country located in the Middle East and characterized by possessing a small industrial base. Strikingly, its economy is among the smallest in the region because of the scarcity of its natural resources. Furthermore, the country is known for high standards of unemployment among its educated and uneducated citizens, especially the youth. Despite these facts, there has been a steady growth in the economy. It is noted that the Jordanian economy has mainly grown increasingly over the past 20 years. Great deal of significant economic reforms have been carried out by King Abdullah II Since he has been in power in 1999, these included opening the trade regime, privatizing state-owned companies, and abolishment of most fuel subsidies. Hence, these critical reforms have been the primary motivator for foreign investment in the kingdom in the last few years. The economic growth has improved increasingly as a result of the foreign investment which naturally has led to creating more job opportunities.

The rate of unemployment has decline considerably despite the sweeping GFC which casted its light on the whole region. It is taken-by-granted that Jordan was affected by the GFC; there were imbalance in the level of imports and exports, for example, Jordan had to pay more for basic commodities and energy products including oil. However, the country has moved on in implementing the significant reforms therefore the economic growth increased constantly. It is understood that any country must prioritize the annual economic growth by implementing strategic economic plans that would be ready to face any sudden or undesirable economic imbalances. Jordan's economy is mainly dependent on exports, tourism, and overseas Jordanian employees' remittances. Any imbalances in these economic resources will affect the rate of employment and unemployment in the kingdom. By nature of things, as the rate of unemployment increases more, the rate of poverty will rise in Jordan. The economy in Jordan is dominated by tourism, financial services, transportation, manufacturing and remittances from Jordanians working abroad. Jordan's lack of arable land and insufficient supplies of water means that agriculture is mostly a non-relevant sector and that the country invests heavily in water recycling. Jordan's economy is highly influenced by the state, however, recently, the efforts have been undertaken to reduce barriers to do business.

3.2. Jordanian Banking Sector

The banking system in Jordan is considered one of the main pillars of the Jordanian economy. In spite of the surplus of events that have been taking place since the beginning of the year 2011 following the Arab spring, the well-capitalized and highly regulated banking sector proved resilient, maintaining its expansion and growth during the first half of 2013. The sector currently consists of 26 bank, 15 of them are listed on the Amman Stock Exchange (ASE).

3.3. The Basel Convention

Identified as the limits of expansion in lending to the banks not to exceed a certain percentage of owned capital and reserves of these banks and this is what is known as leverage in addition to the role of central banks to monitor commercial banks on compliance with these percentages. Banks in the United States are not subject to the control of the Federal Reserve Bank (FED) which led to the expansion of the banks in lending to more than sixty times the size of their capital and thereby increase the size of the debt and risks of non-payment of creditors to their premiums as a result of the absence of effective monitoring by the Federal Reserve Bank, the follow up was shown in the limits of the expansion of lending to commercial banks and their commitment to the Basel Convention

3.4. Interest Rate

The interest rates effect on the decisions of individuals in terms of consumption, saving, and macroeconomic. The policy of the United States for the interest rate has differed, in adopting a lower interest rate on loans in 2000 to encourage citizens to get loans for house owners, which led to the increased volume of loans granted to the citizens. Also the policy of the United States again raised the interest rate on deposits, in the year 2006-2007 resulting in a high rate of interests on loans, thus increasing the burden on borrowers and the weakness of their ability to repay. In 2008, the United States resumed its policy of reducing the interest rate on loans again, thus increasing the volume of loans granted to citizens.

3.5. Concentration of Credit in One Sector Credit

Facilities are a source of income to banks, because of the benefits they get for providing these facilities, and banks to obtain funds from depositors and convert them to medium-sized loans and long-term borrowers who need funding. The effect of the interest rate on the profits of banks meet the margin between the payable interest rates and the deployment of new technologies to enter the foreign financial institutions as well as, local financial institutions to create an atmosphere of competition that lead in raising the efficiency of financial institutions. U.S. banks went towards the mortgage because the property in the United States is the largest source of lending and borrowing, which is considered the largest source of profit, but on the other hand it resulted in a credit concentration in one sector. The problem of borrowers is not being able to conduct real estate and reflected negatively on their inability to meet their financial obligations to repay their debts, forcing the banks to the seizure of the property and also sell in the request is low, for this the volume of liquidity in U.S. banks as a result of concentration of credit the real estate sector. On the other hand, it stopped the U.S. banks to grant credit as a result of low levels of confidence in the market and declining the demand in the production sector.

3.6. Financial Derivatives

The importance of financial derivatives in the generation of new sources of funding and a row based on the origin and one, which leads to the expansion of borrowing. Where they are held in the house in order to obtain a loan and after a period of time the house to the price is raised borrower who shall obtain another mortgage, which lead to the expansion in the volume of borrowing in the United States as a result of financial derivatives.

3.7. Major Players

3.7.1. Lehman Brothers

Lehman Brothers Holdings Inc was the fourth largest investment Bank in the USA. The collapse of Lehman Brothers in 2008 was the largest collapse in the business history of the USA. The failure of Lehman Brothers, in September 2008 challenged the orthodoxy that governments will automatically bail out large interconnected banking institutions. But this failure to intervene can have ripple effects on all aspects of the financial market and can lead to failure of basically sound institutions because of the inability to obtain loan funding for normal operations.

3.7.2. Erin Callan

Callan was considered one of the most powerful women on Wall Street when she was appointed CFO of Lehman in September 2007 after rising up the ranks. She was stripped of the CFO title just six months later after the firm reported massive second-quarter losses the following year and had to raise more \$6 billion in capital. Three months later the firm filed bankruptcy. Callan briefly joined Credit Suisse as a managing director but left by the end of December 2009.

3.7.3. James "Jimmy" Cayne

The former chairman and chief executive officer of Bear Stearns Cos. blamed market forces and loss of confidence in his firm for its collapse in early 2008. The failure of Bear Stearns proved to be an early warning of the instability in financial markets that played out later in the year. Cayne has continued to pursue his passion for bridge, and remains a nationally ranked player.

3.7.4. Richard Fuld

Fuld's nickname was the "Gorilla" on Wall Street because of his competitiveness, joining Lehman Brothers in 1969 and rising through the ranks to become CEO and chairman. Fuld became CEO in 1994 until the firm filed for bankruptcy in 2008, at which point he was hauled in front of Congress to explain his role in the financial meltdown of the economy. Fuld has since kept a low profile, opening an advisory firm Matrix Advisory in Midtown Manhattan and has been consulting quietly, according to news reports and SEC filings.

4. Analysis

Descriptive Statistics:

Mean and standard deviation are used to describe the variables.

Table 1

Report					
Bank		Market Capitalization	Assets	roe	Earnings per share
Jordan Kuwait Bank	Mean	4.0455E8	1.8366E9	17.7418	.5118
	N	11	11	11	11
	Std. Deviation	1.04441E8	6.03150E8	4.58760	.07319
Jordan Commercial Bank	Mean	1.0831E8	5.8952E8	7.8091	.0955
	N	11	11	11	11
	Std. Deviation	56436197.80203	2.78909E8	6.17268	.08870
Cairo Amman Bank	Mean	2.5353E8	1.5296E9	14.7782	.3555
	N	11	11	11	11
	Std. Deviation	94992762.48747	4.47569E8	2.47390	.12949
Jordan National Bank	Mean	2.3542E8	2.0317E9	7.8782	.1764
	N	11	11	11	11
	Std. Deviation	92298118.97209	5.00679E8	3.58632	.10013
Jordan Bank	Mean	2.8813E8	1.5986E9	15.4173	.2782
	N	11	11	11	11
	Std. Deviation	78910536.12967	4.45958E8	2.67343	.04792
Total	Mean	2.5799E8	1.5172E9	12.7249	.2835
	N	55	55	55	55
	Std. Deviation	1.27451E8	6.73432E8	5.74128	.17046

The Above table shows the mean and standard deviation for each variable for each bank. It is found that Jordan Kuwait Bank has the highest mean for the variables (Market Capitalization, ROE, and Earnings Per Share) whereas Jordan National Bank has the highest mean of Assets.

Hypothesis Testing:

Ho: There is significant effect of independent variables on Earnings Per Share

Multiple Regressions is used to test above hypothesis and following results are found for each bank.

Table 2

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.853 ^a	.727	.611	.04567

a. Predictors: (Constant), roe, Market Capitalization, Assets ; b. bank = Jordan Kuwait Bank

Table 3

ANOVA ^{b,c}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.039	3	.013	6.228	.022 ^a
	Residual	.015	7	.002		
	Total	.054	10			

a. Predictors: (Constant), roe, Market Capitalization, Assets; b. bank = Jordan Kuwait Bank; c. Dependent Variable: Earnings per share

Coefficients ^{a,b}						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.297	.195		1.519	.173
	Market Capitalization	4.778E-11	.000	.068	.183	.860
	Assets	-1.098E-11	.000	-.090-	-.162-	.876
	roe	.012	.009	.764	1.378	.211

The above table shows that R (0.853) is the correlation of the independent variables and the Earnings per share. In addition, it is found that R Square (0.727), which is the explained variance, is actually the square of the multiple R (0.853)². What the results mean is that (75.7%) of the variance (R-Square) in the Earnings per share has been significantly explained by the independent variables.

The ANOVA table shows that the F value of (6.228) is significant at (0.05) level. Thus, there is a statistically significant influence of independent variables on Earnings per share for this bank. In the table of coefficients, it is found the calculated value for each variable is not significant at 0.05 levels, as well as, the equation is:

$$\text{Earnings per share} = 0.297 + 4.778E-11(\text{Market Capitalization}) - 1.098E-11(\text{assets}) + 0.012(\text{ROE})$$

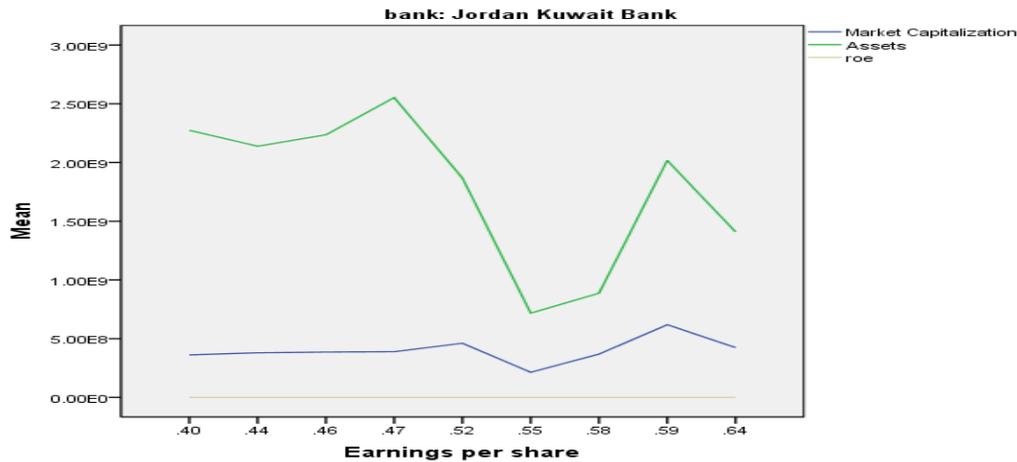


Figure 1: Bank = Jordan Commercial Bank

Table 4

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.997 ^a	.993	.990	.00879		
a. Predictors: (Constant), roe, Assets , Market Capitalization; b. bank = Jordan Commercial Bank						
ANOVA ^{b,c}						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.078	3	.026	337.055	.000 ^a
	Residual	.001	7	.000		
	Total	.079	10			
a. Predictors: (Constant), roe, Assets , Market Capitalization; b. bank = Jordan Commercial Bank; c. Dependent Variable: Earnings per share						
Coefficients ^{a,b}						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.045-	.009		-4.810-	.002
	Market Capitalization	7.565E-11	.000	.048	1.020	.342
	Assets	3.383E-11	.000	.106	2.923	.022
	roe	.014	.001	1.000	19.332	.000
a. bank = Jordan Commercial Bank; b. Dependent Variable: Earnings per share						

The above table shows that R (0.997) is the correlation of the independent variables and the Earnings per share. In addition, it is found that R Square (0.993), which is the explained variance, is actually the square of the multiple R (0.997)². What the results mean is that (99.3%) of the variance (R-Square) in the Earnings per share has been significantly explained by the independent variables.

The ANOVA table shows that the F value of (337.055) is significant at (0.05) level. Thus, there is a statistically significant influence of independent variables on Earnings per share for this bank. In the table of coefficients, it is found the calculated value for Market Capitalization variable is not significant at 0.05 levels, as well as, t values for the other two variables are significant at 0.05 levels, also the equation is:

$$\text{Earnings per share} = -0.045 + 7.565E-11 (\text{Market Capitalization}) + 3.383E-11 (\text{assets}) + 0.014(\text{ROE})$$

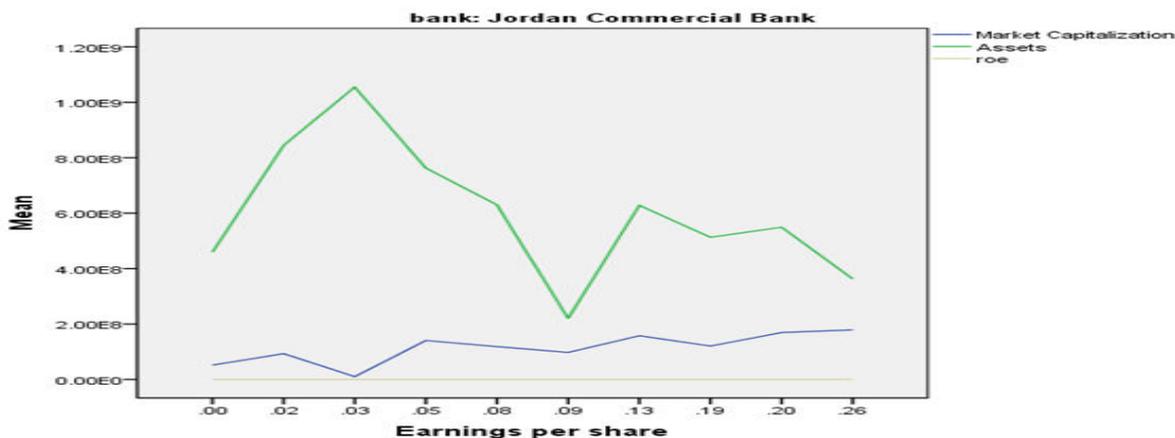


Figure 2: Bank = Cairo Amman Bank

Table 5

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.913 ^a	.833	.761	.06324		
a. Predictors: (Constant), roe, Assets , Market Capitalization						
b. bank = Cairo Amman Bank						
ANOVA ^{b,c}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.140	3	.047	11.640	.004 ^a
	Residual	.028	7	.004		
	Total	.168	10			
a. Predictors: (Constant), roe, Assets , Market Capitalization; b. bank = Cairo Amman Bank; c. Dependent Variable: Earnings per share						

Table 6

Coefficients ^{a,b}						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.208	.259		.800	.450
	Market Capitalization	1.528E-9	.000	1.121	1.911	.098
	Assets	-7.089E-11	.000	-.245-	-1.408-	.202
	roe	-.009-	.032	-.170-	-.280-	.787
a. bank = Cairo Amman Bank; b. Dependent Variable: Earnings per share						

The Above table shows that R (0.913) is the correlation of the independent variables and the Earnings per share. Also it is found that R Square (0.833), which is the explained variance, is actually the square of the multiple R (0.913)². What the results mean is that (83.3%) of the variance (R-Square) in the Earnings per share has been significantly explained by the independent variables.

The ANOVA table shows that the F value of (11.64) is significant at (0.05) level. Thus, there is a statistically significant influence of independent variables on Earnings per share for this bank.

In the table of coefficients, it is found the calculated value for each variable in not significant at 0.05 levels as well as the equation is:

$$\text{Earnings per share} = 0.208 + 1.528E-9 (\text{Market Capitalization}) - 7.089E-11 (\text{assets}) - 0.009(\text{ROE})$$

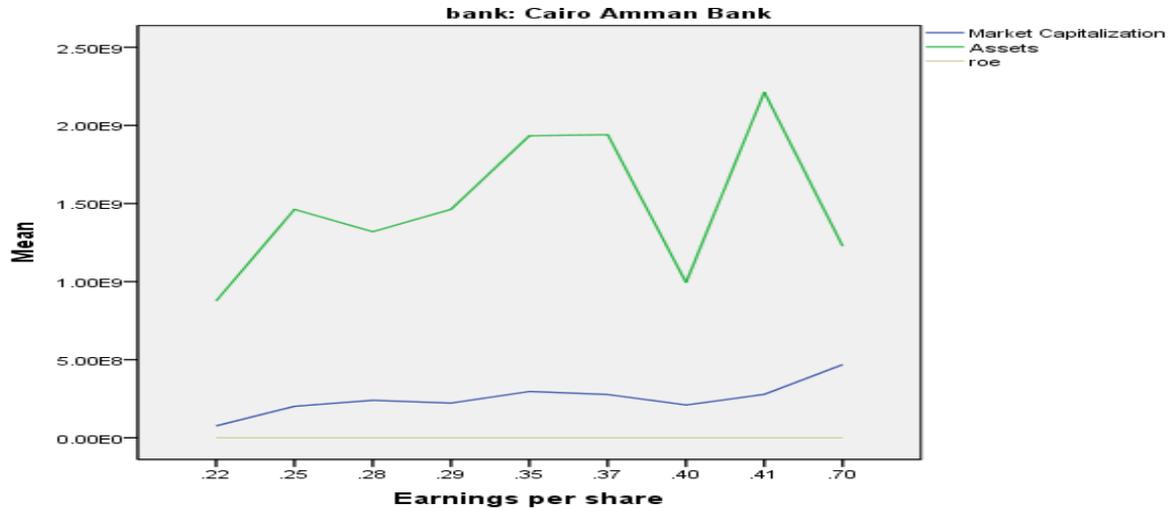


Figure 3: Bank = Jordan National Bank

Table 7

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867 ^a	.751	.645	.05970

a. Predictors: (Constant), roe, Assets , Market Capitalization
 b. bank = Jordan National Bank

ANOVA ^{b,c}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.075	3	.025	7.044	.016 ^a
	Residual	.025	7	.004		
	Total	.100	10			

a. Predictors: (Constant), roe, Assets , Market Capitalization; b. bank = Jordan National Bank; c. Dependent Variable: Earnings per share

Coefficients ^{a,b}						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.112	.100		1.123	.298
	Market Capitalization	-3.218E-10	.000	-.297-	-1.088-	.313
	Assets	-4.777E-11	.000	-.239-	-1.157-	.285
	roe	.030	.008	1.078	3.889	.006

a. bank = Jordan National Bank; b. Dependent Variable: Earnings per share

The above table shows that R (0.867) is the correlation of the independent variables and the Earnings per share. Also it is found that R Square (0.751), which is the explained variance, is actually the square of the multiple R (0.867)². What the results mean is that (75.1%) of the variance (R-Square) in the Earnings per share has been significantly explained by the independent variables.

The ANOVA table shows that the F value of (7.044) is significant at (0.05) level. Thus, there is a statistically significant influence of independent variables on Earnings per share for this bank.

In the table of coefficients, it is found the calculated value for Roe variable in significant at 0.05 levels as well as t values for the other two variables are not significant at 0.05 levels, also the equation is:

$$\text{Earnings per share} = 0.112 - 3.218E-10 (\text{Market Capitalization}) - 4.777E-11 (\text{assets}) + 0.03(\text{ROE})$$

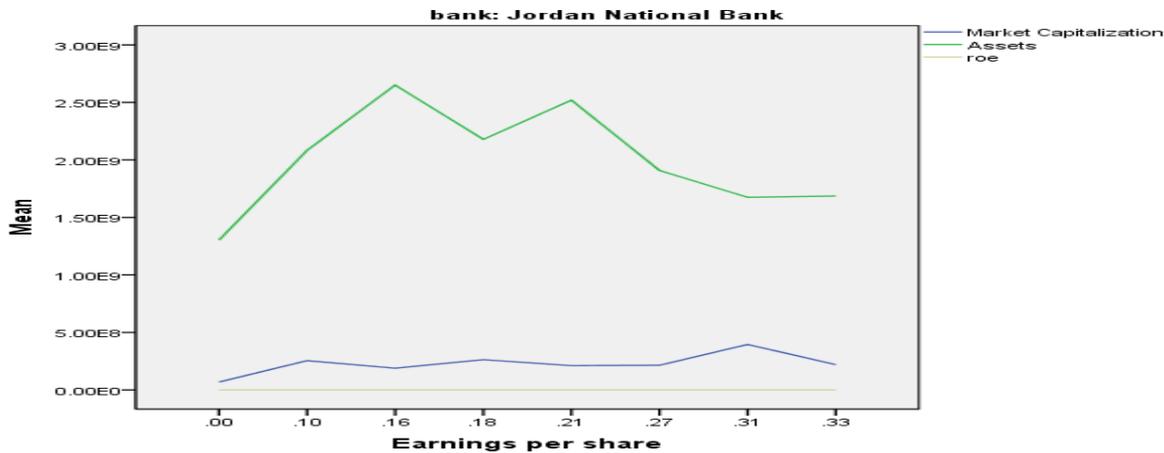


Figure 4: Bank = Bank of Jordan

Table 8

Model Summary ^b						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	
1	.879 ^a	.772	.675		.02734	
a. Predictors: (Constant), roe, Market Capitalization, Assets ; b. bank = Bank of Jordan						
ANOVA ^{b,c}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.018	3	.006	7.911	.012 ^a
	Residual	.005	7	.001		
	Total	.023	10			
a. Predictors: (Constant), roe, Market Capitalization, Assets ; b. bank = Jordan Bank; c. Dependent Variable: Earnings per share						
Coefficients ^{a,b}						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.012-	.075		-.165-	.874
	Market Capitalization	-2.269E-11	.000	-.037-	-.179-	.863
	Assets	2.175E-11	.000	.202	.898	.399
	roe	.017	.004	.949	4.501	.003
a. bank = Jordan Bank; b. Dependent Variable: Earnings per share						

The above table shows that R (0.879) is the correlation of the independent variables and the Earnings per share. In addition, it is found that R Square (0.772), which is the explained variance, is actually the square of the multiple R (0.879)². What the results mean is that (77.2%) of the variance (R-Square) in the Earnings per share has been significantly explained by the independent variables.

The ANOVA table shows that the F value of (7.911) is significant at (0.05) level. Thus, there is a statistically significant influence of independent variables on Earnings per share for this bank.

In the table of coefficients, it is found the calculated value for Roe variable in significant at 0.05 level, as well as, t values for the other two variables are not significant at 0.05 levels, also the equation is:

$$\text{Earnings per share} = -0.012 - 2.269E-11 (\text{Market Capitalization}) + 2.175E-11 (\text{assets}) + 0.17(\text{ROE})$$

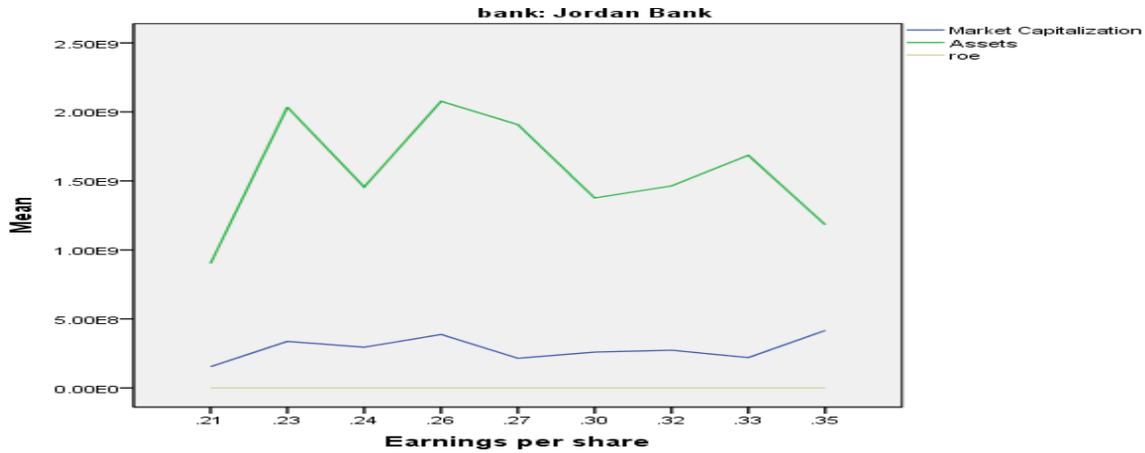


Figure 5: Regression

Table 9

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.895 ^a	.800	.789	.07837

a. Predictors: (Constant), roe, Assets , Market Capitalization

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.256	3	.419	68.146	.000 ^a
	Residual	.313	51	.006		
	Total	1.569	54			

a. Predictors: (Constant), roe, Assets , Market Capitalization
 b. Dependent Variable: Earnings per share

Coefficients ^a			
Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	-.090-	.035
	Market Capitalization	4.243E-10	.000
	Assets	1.739E-11	.000
	roe	.019	.003

Coefficients ^a						
Model		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		Beta			Tolerance	VIF
1	(Constant)		-2.581-	.013		
	Market Capitalization	.317	2.958	.005	.340	2.938
	Assets	.069	.869	.389	.626	1.597
	roe	.628	6.757	.000	.453	2.210

Dependent Variable: Earnings Per Share

The above table shows that R (0.895) is the correlation of the independent variables and the Earnings per share. Also it is found that R Square (0.80), which is the explained variance, is actually the square of the multiple R (0.895)². What the results mean is that (80%) of the variance (R-Square) in the Earnings per share has been significantly explained by the independent variables. The ANOVA table shows that the F value of (68.146) is significant at (0.05) level. Thus, there is a statistically significant influence of independent variables on Earnings per share for this bank.

In the table of coefficients, it is found the calculated value for assets variable in not significant at 0.05 levels, as well as, t values for the other two variables are significant at 0.05 levels, also the equation is:

$$\text{Earnings per share} = -0.09 + 4.243\text{E-}10 (\text{Market Capitalization}) + 1.739\text{E-}11(\text{assets}) + 0.019 (\text{ROE})$$

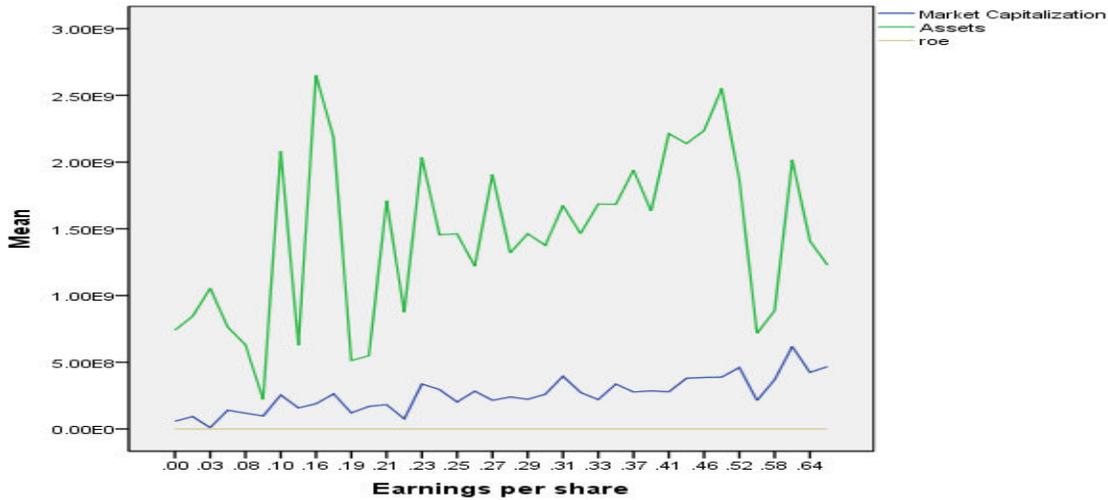


Figure 6

Multicollinearity Test:

VIF test is used to test the multicolliniarity between the independent variables. it is found that VIF is less than 5 for each variable and the tolerance is more than 0.10 for each variable.

That means there is no Multicollinearity, as shown in the following table:

Table 10

Model	Collinearity Statistics	
	Tolerance	VIF
Market Capitalization	.340	2.938
Assets	.626	1.597
ROE	.453	2.210

5. Conclusion

The impact of the global slowdown in Jordan can be visible as being driven mainly by the country’s high dependence on food and fuel imports, which make it highly vulnerable to fluctuations in food and oil prices. Similarly, whether the GFC has affected Jordanian abroad workers or it has reduced the number of tourists, or decreased the foreign grants, the banking sector in Jordan was relatively isolated from the impact of the GFC, due to its limitation to the global market and due to the restructure taken by the Jordanian government and the Central Bank. It could be said that the effect of the GFC is like a cycle that will affect everyone, based on the study about the consumer behavior in Jordan after the crisis, it can be concluded that the crisis influenced the consumers in Jordan and the main reasons of this affect are summarized as following: the reduction of remittances has affected Jordanians' purchasing power; the crisis has led to increase the oil and commodity prices which led as a result to decrease the purchasing power too; the increase in the unemployment rate led to increase poverty rates. Finally, countries should learn good lessons from this crisis in order to be able to protect themselves in the future and they should continue the reform programs to attract the foreign investors.

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