The Effect of 2008 Financial Crisis on Jordan Banks Profit (Reviewed)

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Abstract

This study aims to focus on the effects of late global financial crisis on Jordan’s banking sector and how Jordan’s banks acted after the global financial crisis. Researchers have used data form a selected set of Jordanian commercial banks and tests used were correlation coefficient test, and simple regression in analyzing this effect. Study results revealed that there was no significant impact of the late global financial crisis on the net income of Jordan banks. The study recommended the need to develop and initiate laws and regulations that will curb and minimize the effect of sudden financial crises which might occur on the financial sector in general and the banking sector in particular.

Keywords: Financial System, Financial Crisis, Banking Sector, Banks Profitability, Jordan
Introduction

The financial crisis that toppled the monetary system and banking sector in late 2008 in the United States had caused significant impact on most U.S. economic sectors. Effects were extended to various countries of the world in varying degrees. This caused governments to intervene to rescue their economies through various monetary and fiscal policies, laws and procedures in a bid to reduce the financial crisis effects on their citizens and their economies in particular. These economic crises usually affect different regions of the world every now and then, and for multi reasons, it has become a questionable and interesting issue for financial experts and businessmen. However, the shocks that occurred in South Asia and South America, far off from the last real estate property crisis which turned down the economic balance of power and had left the world economies bear the losses after the rise of economies worked for them throughout the years (Calvo, C., 2010). Late Global Financial Crisis (2008) in particular, is considered by many economists as the worst financial crisis since the U.S. Great Depression of the 1930s. The Late crisis has caused a real and tragic threat of total collapse of large financial institutions, the bailout of banks by national governments, and downturns in stock markets around the world. In many areas, the real estate market also has suffered, resulting in evictions, foreclosures and prolonged unemployment. This crisis has played a significant role in the failure of key businesses, caused sharp declines in consumer wealth estimated in trillions of US dollars, and a downturn in economic activity leading to the 2008–2012 global recession and contributing to the European sovereign-debt crisis, Greece is an example.

The crisis phase, which was manifested as a liquidity crisis has started on August 7, 2007, when BNP Paribas terminated withdrawals from three hedge funds citing, due to a complete evaporation of liquidity.

As a consequence of this crisis, Arab countries have gained rapid increases in their oil returns in 2007. During the first half of 2008, oil, natural gas, and other commodity prices had been rising rapidly, leading to huge incomes. At the same time, they had to cope with exponential rising of food and raw material prices which threatened their economies and social stability.

By July, 2008, the effects of the financial crisis and expectations of much lower global growth have led to a collapse in oil prices. Consequently, Arab oil exporters had experienced a sharp fall in the oil receipts, deterioration in their terms of trade, and declining surpluses on their balance of payments. Arab financial markets had also suffered along with others around the world. In the following twelve-month period ending in February 2009, Saudi stock market fell by about 49 percent, Dubai's by 72 percent, and Egypt's by 61 percent. These losses have reduced consumption and discouraged investment (Rivlin., 2009).

Literature Review

2.1 Financial system and Economic Growth

The economic development of a country depends more on real factors such as the industrial growth & development, modernization of agriculture, expansion of internal trade and foreign trade. The role and importance of banking sector and the monetary mechanism cannot be
under-estimated in the development of a nation. Hence the banks and financial institutions play significant and crucial role by contributing in economic planning such as lying down of specific goals and allocating particular amount of money that constitute the economic policy of the government. Performance of the banking sector is an effective measure and indicator to check the performance of any economy to a large extent. The banking sector’s performance is perceived as the replica of economic activities of the economy as a healthy banking system plays as the bedrock of economic, social and industrial growth of an economy. (Misra, S and Aspal, P, 2013). Many studies had confirmed the effect of financial system in the economic growth and opined that there is a strong relation between economic growth and financial system development (Levine, R, 2005).

2.2 Role of Banks in The Financial System

Banks perform various roles in the economy, they ameliorate the information problems between investors and borrowers by monitoring the latter and ensuring a proper use of the depositors’ funds. They provide inter temporal smoothing of risk that cannot be diversified at a given point in time as well as insurance to depositors against unexpected risk shocks, this is due to maturity mismatches between the bank’s assets and liabilities, however, banks are subject to the possibility of runs and systemic risk. Also banks contribute to the growth of the economy as they play an important role in corporate governance. The collective importance of the different roles of banks varies drastically among different world countries and times but however, banks are always critical to the financial system. Banks play a crucial and significant role in the financial system in capital formation, due to the inherent nature, therefore banks should be given more attention than any other type of economic unit in an economy. Evaluation of financial performance of the banking sector is an effective measure and indicator to check the soundness of financial activities of an economic system. The banking sector’s performance is perceived as the replica of financial activities of the economy. The development of the banking industry is a good indicator of the economic development (Allen, F, and, Charletti, E, 2008). It is worth to add that applying these methods alone to evaluate banks performance will reflect the efficiency degrees but unable to give any details upon the factors related to inefficiency as the majority of these factors are non-numeric variables such as operating style, management hierarchy, or governance principles in banking sector (Emrouznejad and Anouze, 2010).

2.3 Banks performance evaluation

There is a substantial body of literature that introduced different methods applied to evaluate banks performance (Anouze, 2010).

In recent years, banks have experienced drastic changes in technology applications, deregulation processes, and competition. Such changes require banks to assess their strategies and re-design their performance evaluation process in order to respond positively to the demand of their shareholders’ wealth maximization (SWM). The important dimension of SWM is to assess a bank’s performance on the basis of value creation which can be estimated by the economic model and economic value added. Al-Fayyoumi explained how banks can apply the creation value in banks by adopting a comprehensive performance evaluation
system which concentrates on concepts such as: value at risk, capital allocation, and risk-adjusted performance measures (Al-Fayyoumi, N, 2001). Berger and Humphrey have reviewed about 130 studies concerning efficiency of financial institutions. They classified these methods according to the employed technical approach into parametric and nonparametric. Parametric methods such as; stochastic frontier approach (SFA) and nonparametric such as data envelopment analysis (DEA) (Berger and Humphrey, 1997).

2.4 Banks of Jordan

The banking sector in Jordan is considered one of the main pillars of the Jordanian financial system. In spite of the tragedy of events that have been taking place since the beginning of the year 2011 following the Arab Uprising (Arab Spring), the well organized and highly regulated banking sector proved steadiness, maintaining its existence and growth during the past three years (2013-2015). Jordan’s Banking Sector consists of 26 banks, 15 banks are listed on the Amman Stock Exchange (ASE). In this study, researchers studied the performance of a sample of these banks (Arab Bank, Al Ahli Bank, Housing Bank, Cairo Amman Bank, Bank of Jordan, Jordan Kuwait Bank) for the period of 2007-2009 and discussing the bank’s financial performance before the Global Crisis, during, and after, taking into consideration all the financial events which those banks have witnessed during these years (Musmar, F. Hudairi, S. 20013).

2.5 Global Financial Crises

The financial crisis that began in the U.S. in the summer of 2007 had spread to a number of other world advanced economies through a combination of direct exposures to subprime assets. The financial crisis happened because banks were able to create too much money, too quickly, and used it to push up house prices and speculate on financial markets. The financial crisis of 2007 to 2008 occurred because banks were not willing to constrain the financial system’s creation of private credit and money. This process was the main cause of the financial crisis. Straight after the crisis, banks have limited their new lending to businesses and households. The slowdown in lending caused prices in these markets to drop, and this means those that have borrowed too much to speculate on real estate rising prices had to sell their assets in order to repay their loans. House prices dropped and the bubble bursted. As a result, banks panicked and cut lending even further. A downward loop thus begins and the economy tips into recession (Lord Adair Turner, 2013). The fatal loss of confidence in many asset classes and their drying effect on wholesale financial markets. This process had caused a dramatic expose of “home-grown” financial imbalances build-up in many advanced economies, whose overreliance on wholesale funding by their banking systems as well as the formation of asset bubbles in their residential property markets. However, many years after the onset of the crisis, there is still disagreement among policymakers and researchers on the causes that had built-up the financial imbalances worldwide (Taylor, 2007, White, 2009). It has been argued by many researchers that this crisis was a result to a combination of accommodative monetary policies as well as growing global imbalances that caused this crisis to build up (Acharya and Richardson, 2009).
2.6 Main causes of Financial Crisis

2.6.1 Monetary policy

Literatures have identified a number of channels through which monetary policy might have contributed to the build-up in financial imbalances. Most of these are thought to have worked through policy rates that were kept low for too long.

Loose monetary policy (a low short-term rate) has:

(i) Reduced the cost of wholesale funding for intermediaries, leading those intermediaries to build-up leverage (Adrian and Shin, 2008);

(ii) Almost caused banks to take more risks, including credit and liquidity risks (Borio and Zhu, 2008);

(iii) Almost increased both the supply and demand for credit (mortgages), causing asset (house) prices to rise (Taylor, 2007).

Rising global imbalances are associated with a greater dispersion of current account positions across countries and larger net flows of capital between countries. At the level of an individual country, a current account deficit is matched by net capital inflows, as foreign investors build up claims on the domestic economy (Ostry et al, 2010).

2.6.2 Supervisory and regulatory factors

Supervision and regulation of the financial system are two key means to prevent crises, by controlling moral hazard and discouraging excessive risk-taking on the part of financial institutions. Inadequate supervision and regulation are therefore prime candidates to have caused the global financial crisis. Many researchers have paid particular attention to the impact of financial regulation on bank 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. 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 (Hsiao, Chang, Cianci and Huang (2010). 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, along a number of dimensions that are further spelled out below. He 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 (2010).

2.6.3 Growth of the housing bubble

During the period 1998 -2006, the price of an ordinary house in USA has increased by 124%. Within two decades that ended in 2001, the normal home price had ranged from 2.9 to 3.1 doubles the average household income. This ratio has risen to 4.6 in 2006.This had caused a housing bubble in many homeowners refinancing their homes at lower interest rates, or those who financed homes consumer by taking double mortgages which were
hypothetically secured by the price appreciation. Many of the collateralized debt obligations 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 September 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 (RealtyTrac Staff, 2008).

2.6.4 Easy credit conditions

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 (Chairman Bernanke, B, 2007).

2.6.5 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 (ARM) 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 (Hawke, J, 2000).

2.6.5 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. An OECD 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, P., 2012).

2.6.7 Increased debt burden or over-leveraging

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, M, 2009).
2.6.8 Financial innovation and complexity

Innovative financial products have reinforced the complexity and multiplied the number of actors connected to a mortgage such as mortgage brokers, specialized originators, the securitizes 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, M & Galitsky, B, 2005).

3. Previous studies

Many researchers argued that the Global Financial Crisis has been a combination of accommodative monetary policy and growing global imbalances that caused the build-up (Obstfeld and Rogoff, 2009).

**Yulia, and Hemert**, 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 crisis and that securitizes 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).

**Gwinner, and Sanders**, discusses 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 (Gwinner, and Sanders, 2008).

**Pasiouras, F**, used 715 banks samples from 95 countries and two-stage data envelopment analysis (DEA) to provide an international clue on the impact of regulations and supervision approaches on banks’ efficiency; also researcher used the Tobit regression to investigate the effect of bank regulations such as: bank capital adequacy, private monitoring, banks’ activities, deposit insurance programs, disciplinary power of the authorities, on banks’ technical efficiency. Results provided evidence in favour of all Basel II pillars (Pasiouras, F. 2008).

**Huang, H** investigated the effects of the first financial restructuring (FFR) on productivity growth, technical progress and efficiency change, using data from 42 commercial banks in Taiwan from 2001 to 2004. Researchers found that found that Taiwan commercial banks on average experienced a 117.39 percent increase in productivity growth, of which is 2.11 percent is due to efficiency change and 115.28 percent to technical progress over the four year period.

**ANAYIOTOS, G, et al** have estimated estimates for the relative efficiency of banks in emerging Europe before the recent boom by using a Data Envelopment Analysis (DEA).
Researchers have assessed the relative importance of possible determinants of DEA bank efficiency scores in Europe and compared efficiency scores between foreign-owned and domestic banks, and between foreign-owned banks and their mother banks. Study results suggested that DEA efficiency scores before the recent crisis were strongly linked to the host country’s development level (ANAYIOTOS, G., et al., 2010). Merrouche, and Nier, empirically investigated the drivers of financial imbalances ahead of the global financial crisis. They found that three factors may have contributed to the build-up of financial imbalances: (i) rising global imbalances (capital flows), (ii) monetary policy that might have been too loose, (iii) 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 (Merrouche and Nier, 2010).

Fethi, a, and, Pasiouras, have introduced a concise review of 196 researches which employed operational research and artificial intelligence techniques in the assessment of bank performance. Researchers have proposed a combination of the predictions of individual models along with the integrated meta-classifier (Fethi, M., Pasiouras, A., 2010).

Sekhri has compared the public sector banks along with their private and foreign counterparts. Comparison was based on the measures of efficiency and productivity of outputs as compared to inputs. The bank efficiency measures its performance against a benchmark and its productivity performance over a time period.

Empirical test results showed that the foreign sector banks have scored a high Total Factor Productivity (TFP), private banks came second in rank. Public sector banks have performed better than the private and foreign banks in pure efficiency change index, which showed that they were more efficient in their operations (Sekhri, V., 2011).

Hadad, M, et al, have examined the monthly profit-based technical efficiency and productivity of Indonesian banks and their market performance. Researchers examined the banks through the prism of efficiency and super-efficiency techniques, for the period 2003-01 to 2007-07. Within this research strategy researchers employed Tone’s non-parametric, Slacks-Based Model (SBM) and Tone’s super-efficiency SBM to estimate the bank efficiencies. Researchers found that in general, banks’ efficiency scores were positively correlated with share prices and return on equity (Hadad, M, et al, 2011). Lindblom, & Willesson, have conducted a study the effect of the 2007-2008 financial crises on Swedish banks to include banks in 24European countries. This study disclosed a considerable decrease in the average bank’s contribution from non-interest bearing business activities, like trading and other financial services in 2008. However, the income from these activities was improved already in 2009 (Lindblom, & Willesson, 2011).

Fang, et al, have investigated changes in the financial performance of representatives of the world’s top 200 commercial banks after the global subprime financial crisis. The empirical results showed that following the subprime-crisis disclosure. All commercial banks exhibited worse performance in asset quality, profitability, liquidity, and growth index, accompanied by risk increases in asset adequacy, managerial ability, profitability, and growth index (Fang, et al, 2013).
4. Test Methodology and Data

This study implements the qualitative statistical analysis in diagnosing the theoretical part, while researchers used the quantitative analytical approach in testing the research hypotheses; these tests include: correlation measurement and simple regression analyses:

Independent Variables were: Investments, Assets, Liabilities, Shareholders Equity.

Dependent variable: Profits where Earning per share (EPS) is used as a proxy.

Data:

All variable data were extracted from annual reports of the selected Jordanian banks for the years: 2007, 2008, and 2009. Arab Bank, Al Ahli Bank, Housing Bank, Cairo Amman Bank, Bank of Jordan, Jordan Kuwait Bank.

Tests

1-The correlation coefficient

It is a measure of how well trends in the predicted values follow trends in past actual values. It is a measure of how well the predicted values from a forecast model "fit" with the real-life data. The correlation coefficient is a number between 0 and 1. If there is no relationship between the predicted values and the actual values the correlation coefficient is 0 or very low (the predicted values are no better than random numbers). As the strength of the relationship between the predicted values and actual values increases so does the correlation coefficient. A perfect fit gives a coefficient of 1.0. Thus the higher the correlation coefficient the better. Correlation coefficient of the data set can be derived by the formula:

$$\rho_{X,Y} = \text{corr}(X,Y) = \frac{\text{cov}(X,Y)}{\sigma_X \sigma_Y}$$

$$r = \frac{1}{(n-1)} \sum \frac{(X-\mu_X)(Y-\mu_Y)}{\sigma_X \sigma_Y}$$

2- Simple regression

A statistical measure that attempts to determine the linear association between quantitative variables, a statistical procedure called regression often is used to construct a model. Regression is used to assess the contribution of one or more independent variables to one dependent variable. It can also be used to predict the value of one variable based on the values of others. When there is only one independent variable and when the relationship can be expressed as a straight line, the procedure is called simple linear regression. Simple linear regression is used for three main purposes:

1. To describe the linear dependence of one variable on another
2. To predict values of one variable from values of another, for which more data are available
3- To correct for the linear dependence of one variable on another, in order to clarify other features of its variability.

5. Research Problem and Hypotheses

This study is designed to measure the impact of the Global Financial Crisis on the profitability of Jordan’s Banking Sector.

5.1 The Research problem is designed to answer the following questions

1-Is there a significant effect of Loans Changes on the net income of Jordan’s Banks due to the Global Financial Crisis at 0.05 ≥α level. ?

2-Is there a significant effect of Deposit Changes on the net income of Jordan’s Banks due to the Global Financial Crisis at 0.05 ≥α level. ?

3-Is there a significant effect of Liquidity Changes on the net income of Jordan’s Banks due to the Global Financial Crisis at 0.05 ≥α level. ?

4-Is there a significant effect of Overhead Expenses on the net income of Jordan Banks due to the Global Financial Crisis at 0.05 ≥α level.

5.2 Hypothesis

Main Null Hypothesis:

(Ho1): The financial crisis has no effect on Jordan’s’ local banks performance.

From this main hypothesis the following hypotheses were delivered at (0.05).

Ho-1: There is no significant effect of Loans changes on the net income (earning per share) of Jordan Banks due to the Global Financial Crisis at 0.05 ≥α level.

Ho-2: There is no significant effect of Deposit changes on the net income (earning per share) of Jordan Banks due to the Global Financial Crisis at 0.05 ≥α level.

Ho-3: There is no significant effect of Liquidity changes on the net income (earning per share) of Jordan Banks due to the Global Financial Crisis at 0.05 ≥α level.

Ho-4: There is no significant effect of Overhead Expenses on the net income (earning per share) of Jordan Banks due to the Global Financial Crisis at 0.05 ≥α level.
6. Study Results

Table 1. Summary of interaction variables

<table>
<thead>
<tr>
<th></th>
<th>Loans</th>
<th>Deposits</th>
<th>Liquidity</th>
<th>Overhead Expenses</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>13,634,337</td>
<td>130,235,861</td>
<td>0.791</td>
<td>7,270,269</td>
<td>0.106</td>
</tr>
<tr>
<td><strong>Std.Dev</strong></td>
<td>8,578,439</td>
<td>31,701,487</td>
<td>0.136</td>
<td>2,824,985</td>
<td>0.204</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>31,938,700</td>
<td>159,339,404</td>
<td>0.920</td>
<td>10,066,628</td>
<td>0.580</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>4,000,000</td>
<td>76,065,477</td>
<td>0.530</td>
<td>1,486,524</td>
<td>-0.030</td>
</tr>
<tr>
<td><strong>Jarque-Bera</strong></td>
<td>1.005371</td>
<td>1.622356</td>
<td>1.629230</td>
<td>1.937707</td>
<td>5.025008</td>
</tr>
<tr>
<td><strong>P-value</strong></td>
<td>0.605</td>
<td>0.444</td>
<td>0.443</td>
<td>0.380</td>
<td>0.374</td>
</tr>
</tbody>
</table>

This study adopts data from Amman stock exchange (ASE), with period from 2004 to 2013. Table 1 is five variables’ descriptive statistics and finds that all variables are normally distributed, because Jarque-Bera ratios are not significant for all variables.

Table 2. Results of Multiple Regressions Analysis: Regressing loans changes against EPS

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
<th>F-Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS</td>
<td>0.253</td>
<td>1.184</td>
<td>0.361</td>
</tr>
</tbody>
</table>

The results of the multiple regression analysis that regress loans are shown on table (2 ) above. Loans and financial crisis explained 0.253 percent of the variance, where (R² =0.253, F=1.184, Sig.=0.361), therefore, the null hypothesis is accepted, which indicates that the loans and financial crisis does not affect the EPS, at α =0.05. The following table shows the effect of each variable.

The conclusion of table 3 shows that the loans has non-significant effect on EPS, where (B=-0.038, sig.=0.816), followed by financial crisis, where (Beta=-0.232 sig.=0.303), which indicates that financial crisis has no statistically effect on EPS.
Table 3. Un-standardized and Standardized Coefficients of Multiple Regression Model

<table>
<thead>
<tr>
<th>Independents Variables</th>
<th>Un-standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>0.842</td>
</tr>
<tr>
<td>Loans</td>
<td>-0.038</td>
</tr>
<tr>
<td>Financial crisis</td>
<td>-0.232</td>
</tr>
</tbody>
</table>

*Calculate is less than 0.05

Ho-2: There is no significant effect of deposits changes on the net income (earning per share) of insurance companies due to the Global Financial Crisis at 0.05 ≥α level.

Table 4. Results of Multiple Regressions Analysis: Regressing deposits changes against EPS

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
<th>F- Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS</td>
<td>0.696</td>
<td>8.015</td>
<td>0.016</td>
</tr>
</tbody>
</table>

The results of the multiple regression analysis that regress deposits are shown on table (5) above. deposits and financial crisis explained 0.696 percent of the variance, where (R² =0.696, F=8.015, Sig.=0.016), therefore, the null hypothesis is rejected, which indicates that the deposits and financial crisis does affect the EPS, at α =0.05. The following table shows the effect of each variable.

The conclusion of table 5 shows that the deposits has significant effect on EPS, where (B=-0.610, sig.=0.015), followed by financial crisis, where (Beta=0.003 sig.=0.974), which indicates that financial crisis has no statistically effect on EPS.

Table 5. Un-standardized and Standardized Coefficients of Multiple Regression Model

<table>
<thead>
<tr>
<th>independents Variables</th>
<th>Un-standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>11.474</td>
</tr>
<tr>
<td>Deposits</td>
<td>-0.610</td>
</tr>
<tr>
<td>Financial crisis</td>
<td>0.003</td>
</tr>
</tbody>
</table>

*Calculate is less than 0.05
Ho-3: There is no significant effect of liquidity changes on the net income (earning per share) of insurance companies due to the Global Financial Crisis at 0.05 ≥α level.

Table 6. Results of Multiple Regressions Analysis: Regressing liquidity changes against EPS

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
<th>F- Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS</td>
<td>0.327</td>
<td>1.704</td>
<td>0.250</td>
</tr>
</tbody>
</table>

The results of the multiple regression analysis that regress liquidity are shown on table (6) above. Liquidity and financial crisis explained 0.327 percent of the variance, where (R² =0.327, F=1.704, Sig.=0.250), therefore, the null hypothesis is accepted, which indicates that the liquidity and financial crisis does not affect the EPS, at α =0.05. The following table shows the effect of each variable.

The conclusion of table 7 shows that liquidity has non-significant effect on EPS, where (B=-0.575, sig.=0.389), followed by financial crisis, where (Beta=-0.092 sig.=0.588), which indicates that financial crisis has no statistically effect on EPS.

Table 7. Un-standardized and Standardized Coefficients of Multiple Regression Model

<table>
<thead>
<tr>
<th>independents Variables</th>
<th>Un-standardized Coefficients</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td></td>
<td>0.607</td>
<td>0.449</td>
</tr>
<tr>
<td>Liquidity</td>
<td>-0.575</td>
<td>0.626</td>
</tr>
<tr>
<td>Financial crisis</td>
<td>-0.092</td>
<td>0.162</td>
</tr>
</tbody>
</table>

*Calculate is less than 0.05

Ho-4: There is no significant effect of Overhead Expenses changes on the net income (earning per share) of insurance companies due to the Global Financial Crisis at 0.05 ≥α level.

Table 8: Results of Multiple Regressions Analysis: Regressing Overhead Expenses changes against EPS

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
<th>F- Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS</td>
<td>0.635</td>
<td>6.083</td>
<td>0.029</td>
</tr>
</tbody>
</table>

The results of the multiple regression analysis that regress Overhead Expenses are shown on table (8) above. Overhead Expenses and financial crisis explained 0.635 percent of the variance, where (R² =0.635, F=6.083, Sig.=0.029), therefore, the null hypothesis is rejected,
which indicates that the Overhead Expenses and financial crisis do affect the EPS, at $\alpha = 0.05$. The following table shows the effect of each variable.

The conclusion of table 9 shows that Overhead Expenses have significant effect on EPS, where $B = -0.267$, sig. = 0.029, followed by financial crisis, where $\text{Beta} = -0.003$, sig. = 0.978, which indicates that financial crisis has no statistically effect on EPS.

Table 9. Un-standardized and Standardized Coefficients of Multiple Regression Model

<table>
<thead>
<tr>
<th>independents Variables</th>
<th>Un-standardized Coefficients</th>
<th>Std. Error</th>
<th>t-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>4.289</td>
<td>1.500</td>
<td>2.860</td>
<td>0.024</td>
</tr>
<tr>
<td>Overhead Expenses</td>
<td>-0.267</td>
<td>0.978</td>
<td>-2.728</td>
<td>0.029</td>
</tr>
<tr>
<td>Financial crisis</td>
<td>-0.003</td>
<td>0.112</td>
<td>-0.029</td>
<td>0.978</td>
</tr>
</tbody>
</table>

*Calculate is less than 0.05

7. Conclusion

Detailed results revealed that the main components of Jordan’s banks earnings (EPS) were not affected by the Late Global Financial Crisis. Researchers referred that Jordan in general and the Jordanian banks in particular have limited and conservative participation in the global financial trade and thus its financial institutions were not drastically affected by that crisis. Researchers, however, recommend the need to develop and initiate international laws and regulations that will curb and minimize the effect of sudden financial crises which might occur on the financial sector in general and the banking sector in particular.

References


Emrouznejad, A, Anouze, AL, & Thanassoulis, E. (2010a). A semi-oriented radial measure for measuring the efficiency of decision making units with negative data, using DEA. *EJOR*, 200, 297-304. [http://dx.doi.org/10.1016/j.ejor.2009.01.001](http://dx.doi.org/10.1016/j.ejor.2009.01.001)


