Impact of Global Financial Crisis on Amman Stock Exchange (ASE) Market

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Abstract:

The purpose of this study is to investigate the effect of global financial crisis 2008 on Jordanian economy by using Amman Stock Exchange (ASE) market as representative of Jordanian economy. The main data were collected from ASE market database and covered the period from 1999 to 2014, other data sources were used to run analysis such as New York Stock Exchange (NYSE) market, Trading Economies Website and OANDA Forex Trading Website. Empirical analysis results showed that there was no significant correlation between ASE general index and its sectors with NYSE. Also, results indicated that there is a week and not significant relationship between ASE general index and NYSE, and there is no significant effect of NYSE on ASE or any of the three ASE sectors (financial, services and industrial). But the curves showed that the global financial crisis had delay effect on Jordanian market, while the global crisis started and spread in 2008, ASE market dropped down in 2009. Curves also showed that almost all markets started their recovery within one or two years, while ASE market is still suffering until now i.e. delay effect and delay recovery. The curves also pointed out that the behavior of ASE was similar to other Arab countries (gulf countries) stock exchange markets and dissimilar to U.S. and U.K stock exchange markets. Also, results showed that ASE market did not match with European and Chinese stock exchange markets.

Introduction:

The global financial crisis has affected almost all aspics of our life, its effect has not been limited to one country or industry, it has affected almost all industries and countries allover the world. According to McKibbin & Stoeckel (2009) on September 2008, a Lehman Brothers, a mid-size 'Wall Street' investment banker, collapsed and sent a wave of fear around world financial markets. Gros & Alcidi (2010) added the crisis has started from unexpected and unsustainable bubble that artificially inflated economic figures. Furthermore, Choudhry, et. al. (2010) stated the 2007-08 financial crises led to the 2008-09 global recession which is still causing dramatic consequences on financial markets of many countries in the world. Moreover, Manta & Nanu (2010) said the international macroeconomic and financial environment has undergone major negative changes since the global financial crisis. Also, Gros & Alcidi (2010) pronounced until now, the exact effect and cost of the financial crisis to the real economy has not properly examined, because it is not easy to make such an assessment.

Kondor & Staehr (2011) clearly stated the bankruptcy of Lehman Brothers in September 2008 led to extreme instability in global financial markets and, the shock spread rapidly to the European Union (EU) and eventually resulted in substantial downturns. While, Saeid & Saeid (2012) claimed that the world's financial crisis has begun in 2007 with the collapse of New York stock market and explosion of housing bubble in America. This crisis has rapidly changed the economic feature of the world. Furthermore, Kula et. al. (2012) announced the financial crisis in 2008 – 2010, was global nature and started by the fall of investment bank Lehman Brothers in September 2008, touched most sectors on a global scale. Moreover, Ali & Afzal (2012) said the recent global financial crisis started from United States, spread all over the world and adversely affected real and financial sectors of developed as well as developing countries. Finally, Edogbanya (2013) proclaimed that the global financial crisis is officially traced to August 15, 2007, when investors concerns about the American subprime mortgage lending industry caused a sharp drop in stock prices in the United States of American which affected almost all the stock markets worldwide.

In globalization era, it seems that almost all countries have an open economy system and are interlinked with each other. Therefore any political or economical changes in one country will directly affect almost all countries, especially if dramatic changes take place in giant country such as United States; it will affect all courtiers all over the world. So, the financial crisis which started in US has affected all countries around the world and became global crisis within very short time. Jordan is not an exception, it is not only a part of the world, but also it is in the mid of the world and has a sophisticated political and economical relationships with many countries, especially U.S. and Europe. Global financial crisis has directly and indirectly affected the Jordanian economy, the first manifestation was very clear on financial market i.e. Amman Stock Exchange (ASE) market. Suddenly the prices of ASE market came down dramatically, while the government and stock exchange market players were unable to help or stop the deterioration.

Nowadays, the effect of the crisis becomes more obvious, so it is the suitable time to revisit and reevaluate this phenomenon and study its effect on Jordanian economy. It is not possible to study the effect of the global financial crisis on all variables of Jordanian economy in one study, therefore, this study will be devoted to investigate the influence of global financial crisis on Amman Stock Exchange (ASE) market and compare crisis effect on stock exchange market of other countries. At the same time, this study will evaluate the effect of global financial crisis on different Jordanian economical sectors based on ASE.

The aim of this study is to answer the following main question: do global financial crisis affect Jordanian economy. Amman Stock Exchange (ASE) market will be used as an indicator for Jordanian economy. So the main question will be: does the global financial crisis directly affect Jordanian economy represented by Amman Stock Exchange (ASE) market (general Index).

Based on ASE sectors, this main question will be divided into three sub-questions:

Does the global financial crisis directly affect Jordanian financial sector?

Does the global financial crisis directly affect Jordanian services sector?

Does the global financial crisis directly affect Jordanian industrial sector?

Based on these questions the following hypothesis can be derived:

The global financial crisis does not affect Jordanian Economy (Amman Stock Exchange Market).

According to ASE market sector segmentation this main question can be divided into the following sub-hypotheses:

Global financial crisis does not directly affect Jordanian financial sector (Amman Stock Exchange Market).

Global financial crisis does not directly affect Jordanian services sector (Amman Stock Exchange Market).

Global financial crisis does not directly affect Jordanian industrial sector (Amman Stock Exchange Market).

Literature Review:

Almost all academicians and practitioners agreed upon the statement which says that "the financial crisis which started in United States has affected almost all countries and industries". This section will present a snapshot review of selected related studies which discussed the effect of financial crisis on different countries and different industries, especially on the stock exchange markets. We will start from United States of America, followed by American continent, then Europe, Far East, Africa and finally Middle East - Arab countries.

It is clear and prominent for all people every where that the crisis has been started in US and spread allover the world. Gillingham, et. al. (2009) concluded that the reduction in equity prices that started in 2007 accelerated during 2008. The value of the Dow Jones Industrial Average fell by one-third, and the value of S & P 500 portfolio fell by more than two-fifths. European and emerging market equities have suffered even worse. Malik, et. al. (2009) revealed the global financial crisis which set off by the sub-prime credit crisis in the US has destabilized the financial markets of the developed world causing the fall down of prominent names in the banking business. Block and Sandner (2009) found that the financial crisis led to a 20% decrease in the average amount of funds raised per funding round. Brassil (2010) showed that the global financial crisis has led to increased lending by the International Monetary Fund to member countries. Terajima, et. al. (2010) concluded during the financial crisis, the stresses in US funding markets quickly spread to all cross-border funding markets. Manta & Nanu (2010) pointed out that the international macroeconomic and financial environment has undergone major negative changes since the global financial crisis. Fang and Lee (2011) paper concluded that financial contagion spreads from stock markets in high-risk countries to those in low-risk ones. Balboa & Mantaring (2011) showed the weakness in the manufacturing sector during the crisis pushed the most number of people to unemployment. Saeid & Saeid (2012) revealed that the effect of financial crisis on business integration of G15 countries is 75%; this shows that financial crisis has integrated G15 countries for 75 %. Fang, et. al. (2013) showed that following the subprime-crisis disclosure, all 200 worldwide top 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. Developed markets have suffered a greater negative influence than emerging markets.

Latin America countries and Canada also suffered from the financial crisis. Li & Li (2013) concluded the sharp downturn of the US economy caused a decrease in demand of import from Canada. As a result, there was a decrease in income per capita that hurt the housing market. de Barros (2010) concluded that Brazil felt the financial crisis most strongly at the end of 2008 and industry was particularly affected, but the situation began to improve in the second quarter of 2009. Even so, Brazil has shown that it is, along with China and India, in the group of countries that has best weathered the economic crisis.

The European countries experienced a worst financial disaster since second worldwide ware, but each country has been affected differently. Steffens (2009) showed a deep impact of the crisis on the German economy, and found that the macroeconomic indicators reveal dramatic contractions in most areas. Benamraoui (2010) concluded that the financial crisis has caused unprecedented decline in house prices across the globe, particularly in the UK. Most economic fundamentals have been affected by the credit shortage and failure of many mortgage holders to meet their principal and interest payments. Gardo & Martin (2010) paper showed that the effect of financial crisis was heterogeneous, central, eastern and south-eastern Europe (CESEE) countries with the largest economic imbalances tended to be most affected. Sbughea (2011) concluded that the financial crisis are triggered when asymmetric information problem become particularly acute, and financial markets are unable to perform this crucial role of channeling funds to those who have the most efficient investments in Romania. Armeanu, et. al. (2012) study results showed that the financial markets crisis had a high impact on the stock exchange, affecting mostly the emergent markets, such as Romania, which experienced severe consequences of the crisis. Dolenc, et. al. (2012) results of the analysis of all Slovenian firms' data in the period from 2003 until 2010 showed that the financial/economic crisis had the most evident effect on return on equity and employee value added, and on industry sectors electricity, gas, steam and air conditioning supply, water supply, sewerage, waste management and remediation activities, and construction. Płuciennik (2012) results showed that in considered period, two big growths of Polish treasury yield caused by decreasing demand for them: first in September 2008 after the fiscal crisis hit Hungary, second after Greece turned to the EU and IMF for the first bailout package. Ganic (2012) paper found that although the economies of Western Balkan countries in crisis period performed differently the results of the comparison show that the global financial crisis has a substantial impact on the banking sector of the region. Gijsbers, et. al. (2012) study concluded that the effect of the financial and economic crisis on the European economy have been strong and pervasive. Both GDP and employment have been severely affected. The impact of the crisis on SMEs has differed substantially, not only between countries but also between sectors, size of company and type of customer within countries. The crisis was manifesting itself in the form of a recession in various member States. Kula et. al. (2012) article found that metallurgical companies have above-average decrease of return-ratios in comparison with other industrial companies. The downswing of returns ratios began immediately in 2008; the intensity of the crisis was deeper than in common industries' companies in Czech Republic. Badea (2012) sinvestigated the link between Bucharest Stock Exchange (BSE) market capitalization and the two referential indices, GDP and FDI, the impact of the crisis was felt due to the affected indices of 2006 in 2008 as a consequence of the contagion phenomenon on the European capital markets. Ferati, et. al. (2013) paper results showed that the profitability coefficient has changed from year to year, in 2008, 2009 and 2010 this coefficient was -0,0187, -1,067 and -0,053 respectively. So the profitability of enterprises in 2009 and 2010 was lower than 2008 due to the financial crisis that affected Macedonia. Also, the financial situation of enterprises in the Pollog region weren't immune to the financial crisis.

While financial crises affected emerging markets such as China, India, Pakistan, Malaysia, Korea and other Far East countries differently. IOSCO (2009) pointed out that the impact of the financial crisis on emerging markets has manifested itself in different ways, depending on a number of factors relating to the depth and development of the various capital markets. These trends are indicative of the extent to which emerging markets as a whole have become much more integrated within the global financial system. Ciurea & Miu (2009) showed that indicators signal a deeper and more synchronized downturn in the global economy. Emerging markets also appear to be increasingly affected by the worsening global economic conditions. Goldstein & Xie (2009) concluded that the crisis was not having severe effect on emerging Asia as experienced either by the Commonwealth of Independent States (CIS) economies or by the five most affected Asian emerging economies during Asia's own financial crisis of 1997-98. At the same time, Singapore, Hong Kong, Malaysia, and Korea have suffered very large growth declines during this crisis, and even China and India saw their economic growth rates fall to about half their pre-crisis peaks. Fidrmuc & Korhonen (2010) found that the pattern of business cycles in emerging Asian economies (China and India) generally displays a low degree of synchronization with the Organization for Economic Co-operation and Development (OECD) countries. However, the current financial crisis has had a significant effect on economic developments in emerging Asian economies. Results also showed wide differences for different frequencies of cyclical development. Pomerleano (2009) study concluded that, in the long run, Asia will continue to be the fastest-growing region in the global economy, and some low-income countries-in particular, the Philippines and Thailand and their banks are better able to cope with the stress than many higher-income countries. Ismail & Radam (2010) results indicate that in the post crisis period, Malaysia enjoys an above average level of comparative advantage in the production of edible oil and fat from vegetables and animals, fish and, glucose and maltose. Mamata (2011) observed that FDI inflows into several Indian sectors are devoid of the declining GDP growth rate which includes the Housing sector also. Chowdhury (2011) concluded that the global financial crisis failed to have any impact on the technical efficiency of the Indian banking sector, although few banks were affected marginally. Woo and Chung (2012) found that announcement of increased Korea Corporate Governance Index (KCGI) does not influence a firm's stock returns during a pre-crisis period. During financial crisis and post-crisis, however, changes of KCGI do affect firm's stock returns. Ali & Afzal (2012) evealed that global financial crisis made mild negative impact on stock returns and enhanced volatility in Pakistani and Indian stock exchanges but this impact is stronger on Indian stock market.

Africa also was not sheltered from the impact of financial crisis, but the effect was different from one country to another country. Kyophilavong (2012) simulation results showed that the global financial crisis has a significant negative impact on Lao (Southeast Africa) economy by declining real GDP, welfare and trade balance. Ashamu & Abiola (2012) revealed that the financial crisis has caused depression of the Nigerian capital market and drop in the quality of part of the credit extended by banks for trading in the capital market, exchange rate risk tightening of liquidity, greater loan-loss provisioning, slower growth rate of banks' balance sheet in response to the crisis and higher provisioning leading to lower profitability among others. Yakubu & Akerele (2012) showed that the global financial crisis has no significant effect on the Nigerian Stock Exchange market. Audiguier (2012) showed that for many individual least-developed countries (LDCs), 2009 was not extraordinarily bad. The output shock following the financial and economic crisis was less than expected and hit LDCs less than other developing countries. Maredza & Ikhide (2013) showed that in South Africa, during the crisis period there was a noticeable but mild deviation of total factor productivity and efficiency measures, and results also showed that the financial crisis was the main determinant of bank efficiency, indicating that total factor productivity efficiency was 16.96% lower during the crisis period compared to the pre-crisis period.

Middle East countries including Arab countries have suffered from the financial crisis, but the effect was heterogamous. Abreu, et. al. (2009) showed that the current financial crisis that started in developed countries reduced foreign investment and reduced demand for imports of commodities and labor-intensive products which affected developing countries. Behrendt, et. al. (2009) concluded that most of the Arab states' financial markets have declined significantly as a result of the global financial crisis, but the real economy so far has remained relatively sheltered, in large part due to mass surplus liquidity from the oil boom witnessed in recent years. ESCWA (2009) found that the various economies of the Gulf Cooperation Council (GCC) will be impacted by the global financial crisis, but the impacts are most likely to be short lived. In addition, these impacts will vary between countries, depending on the severity of the crisis and the actions taken by respective GCC Governments. Salah (2010) showed that the impact of world economic crisis on Gulf Cooperation Council (GCC) was similar to the impact elsewhere in the West collapse of the real estate sector, credit constraints, and economic contraction. Kenawy & Abd-el Ghany (2012) showed the negative effects of the world financial crisis on some Egyptian economic sectors both production and service (tourism, banks, air transport, oil and chemical industries).

Referring to the mentioned above literature review, it seems that there are few papers published about the effect of financial crisis on Arab countries, and very few researches were carried out to discuss the effect of financial crisis on different economic sectors of Arab counties, even there is no comparative studies about the effect of financial crisis on different Arab countries. Therefore, this study to take the opportunity to study the effect of financial crisis on Jordanian economy, and the effect of financial crisis on different Jordanian economic sectors by using Amman Stock Exchange market. Then it will compare the results with five countries: United Sates, United Kingdom, Euro Area, China, Saudi Arabia and United Arab Emirates.

Methodology:

This study aims to investigate the cause/effect relationship between financial crisis and ASE sectors. It started with literature review and experts' interviews to explore the ASE profile of Jordanian ASE. Finally, the data were collected from ASE market and government institutions data base, the data were covering 16 years from December 1999 to January 2014. Finally the collected data analyzed via SPSS 20. The correlation between ASE general index and each sector index was tested, then simple multiple regressions were used to test the impact of financial crisis represented by American stock exchange (Dow Jones) on ASE market and its sectors. Finally, the results of general index were compared with six countries (United States, United Kingdom, Euro Area, China, Saudi Arabia and United Arab Emirates) then compared previous researches work. The general ASE index and ASE sectors (Financial, Services and Industries sectors) were studied.

Also the following websites have been used to draw the curves: Trading Economies Website and OANDA Forex Trading Website.

Data Analysis:

First we will check if there is any correlation between ASE market variables and American New York Stock Exchange (NYSE) market by using Dow Jones data.

Bivariate Pearson correlation analysis shows that there is no significant correlation between ASE general index and its variables with NYSE. Also it shows that there are strong relationships among ASE market sectors and between them and general ASE general index.

Table (1): Correlations among variables

	Financials	Services	Industries	General Index (ASE)	General Index (NYSE)
Financials					
Services	0.907**				
Industries	0.857**	0.986**			
General Index (ASE)	0.989**	0.953**	0.920**		
General Index (NYSE)	0.139	0.108	0.070	0.087	

****. Correlation is significant at the 0.01 level (2-tailed).**

Simple Regression:

When we regress ASE against NYSE, table (2) shows week and not significant relationship between ASE general index and NYSE. Also, table (3) shows that there no significant effect of NYSE on ASE general index. Therefore, the null hypothesis is accepted which states that the global financial crisis does not directly affect Jordanian economy represented by Amman Stock Exchange (ASE) market (general Index), where Beta=0.087, Sig.=0.749.

Table (2): Simple Regression of ASE general index on NYSE.

Variable	r	R^2	F	Sig.
ASE General Index	0.087[a]	0.008	0.106	0.749

Table (3): Simple Regression of ASE general index on NYSE Coefficients[a].

<table>
<tr><th colspan="2" rowspan="2">Model</th><th colspan="2">Unstandardized Coefficients</th><th>Standardized Coefficients</th><th rowspan="2">t</th><th rowspan="2">Sig.</th></tr>
<tr><th>B</th><th>Std. Error</th><th>Beta</th></tr>
<tr><td rowspan="2">1</td><td>(Constant)</td><td>11175.665</td><td>1331.102</td><td></td><td>8.396</td><td>0.000</td></tr>
<tr><td>General Index (ASE)</td><td>0.178</td><td>0.546</td><td>0.087</td><td>0.326</td><td>0.749</td></tr>
</table>

a. Dependent Variable: General Index (NYSE).

Multiple Regressions:

When we regress ASE sectors against NYSE, table (4) shows a week and not significant relationship between ASE sectors and NYSE. Also, table (5) shows that there is no significant effect of NYSE on any ASE sector. Therefore, the null hypotheses are accepted which state that global financial crisis does not directly affect Jordanian financial sector, where Beta=-0.088, Sig.=0.914, does not directly affect

Jordanian services sector, where Beta=1.634, Sig.=0.524, and does not directly affect Jordanian industrial sector, where Beta=-1.465, Sig.=0.484.

Table (4): Multiple Regressions of ASE Sectors against NYSE.

Variable	r	R^2	F	Sig.
ASE Sectors	0.249[a]	0.062	0.264	0.850

Table (5): Multiple Regressions of ASE Sectors against NYSE Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8793.539	4252.956		2.068	0.061
	Financials	-0.114	1.025	-0.088	-0.111	0.914
	Services	6.371	9.709	1.634	0.656	0.524
	Industries	-3.577	4.951	-1.465	-0.723	0.484

a. Dependent Variable: General Index (NYSE).

Results Discussions:

Correlation analysis shows that there is no direct correlation between ASE general index with NYSE, and between each ASE sector and NYSE. Also, regressions show that there is no direct effect of global financial crisis represented by Dow Jones index on ASE general index and its sectors. So, how we can explain the drop of ASE general index and ASE sectors in 2009.

Table (6): ASE General Index, ASE Sectors and NYSE General Index (Dow Jones)

Year		Financials	Services	Industries	General Index (ASE)	General Index (NYSE)
1999		1000.00	1000.00	1000.00	1000.00	11246.36
2000		844.73	918.26	828.29	859.76	10440.96
2001		931.29	926.79	794.18	893.20	9979.88
2002		1107.10	1012.02	1053.34	1112.60	8526.66
2003		1459.78	1087.51	1332.82	1374.39	10124.66
2004		2555.08	1380.00	1888.62	2074.62	10673.38
2005		6135.10	2281.46	2842.98	4067.63	10827.79
2006		5399.25	2033.33	2539.24	3530.03	12377.62
2007		4715.32	2109.01	2572.15	3239.00	13407.02
2008		5033.46	2796.54	4057.37	3973.59	8595.56
2009		3363.00	2017.74	2797.05	2669.76	10433.44
2010		2937.69	1992.33	2547.81	2409.69	11465.26
2011		2667.58	1729.85	2292.91	2138.48	12075.68
2012		2372.78	1616.54	2126.80	1937.06	13380.65
2013		2495.17	1625.36	2100.15	1997.95	15471.70
2014		2951.47	1663.41	1991.37	2179.02	16095.77
Total	**N**	16	16	16	16	16

Table (6) shows that ASE general index, since 1999 the first drop was in 2000, then in 2001 start normal increase and the increase accelerated during 2003 until 2005. This increase might be related to the war against Iraq, where many Iraqi people came to Jordan and invest in Jordan, especially in ASE market. While in 2006 the ASE market again dropped down significantly, it started on November 2005 and may be related to the series of coordinated bomb attacks on three hotels in Amman on 9 November 2005 and sharp correction in the Amman Stock Market in 2006. As a sequence of these attacks many Iraqi investors lift Jordan either to other Arab countries or return back to Iraq. This decrease continued through out 2007. In 2008 the ASE general market index increased significantly while the American stock exchange market dramatically came down to lowest value since 1999, then after that it starts increasing steadily until January 2014. While ASE after 2009 it starts decreasing steadily until 2012. It seems that Jordanian economy has late response to financial crisis which occurred in 2008. It also takes time to recover. Therefore, we can conclude that the global financial crisis has delay effect on Jordanian economy, and Jordanian economy suffered from global financial crisis other worldwide markets. The figure (1) shows the curves of ASE general index and its sectors, it shows the ups and downs of the Jordanian market. It clearly shows that the three ASE sectors have almost similar behavior to ASE general index and are highly correlated with each others and with ASE general index. Also, it shows that the big increase after Iraqi war in 2003, which continued until the end of 2005. Then there was a dramatic and continuous decrease until the end of 2007. Then there was a sudden increase during 2008 followed by dramatic decrease in 2009 until 2012, where it started to recover.

Figure (2) and (3) show that the behavior of ASE general index is different from the behavior of American stock market, which proves our previous results regarding correlation and effect of American stock market on Jordanian Stock market. While figure (4) shows that United Kingdom stock market is similar to U.S. stock market and differs from Jordanian stock market, and figure (5) show also Euro stock market has almost similar trend like U.S. and U.K. stock markets.

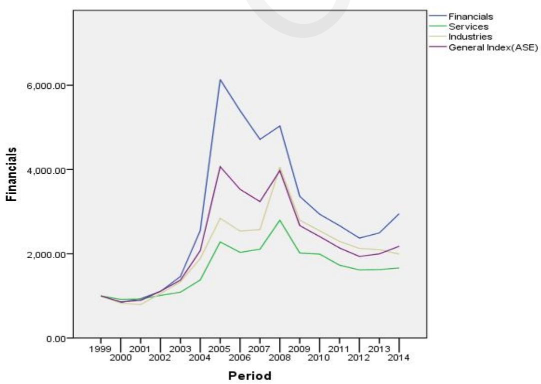

Figure (1): ASE General Index and its Sectors

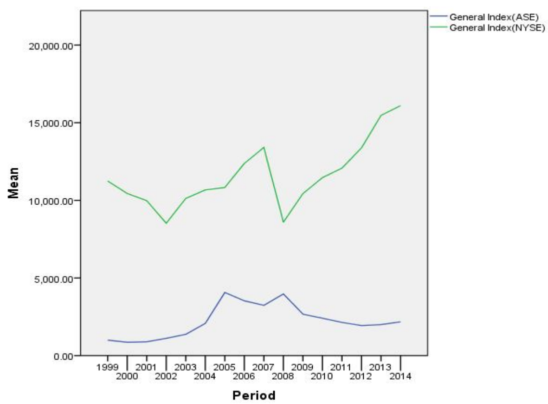

Figure (2): ASE General Index and NYSE General Index

Figure (3): U.S. Stock Market and Jordan Stock Market

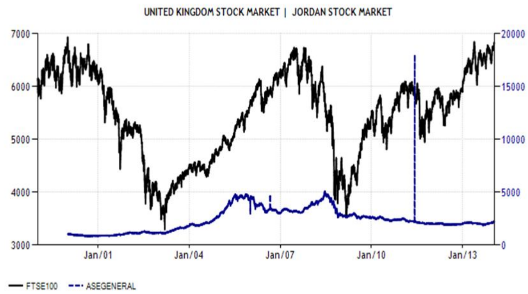

Figure (4): U.KStock Market and Jordan Stock market

Figure (5): Euro Stock Market and Jordan Stock Market

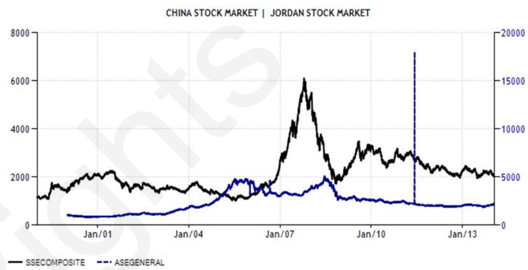

Figure (6): China Stock Market and Jordan Stock market

Figure (7): S.A. Stock Market and Jordan Stock Market

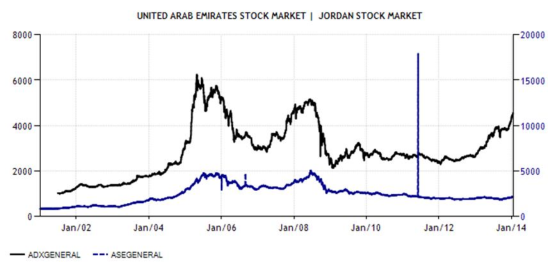

Figure (8): UAE Stock Market and Jordan Stock market

If we go to Far East Asian markets e.g. China stock market, figure (6) shows that it differs from U.S., U.K. and Euro markets, but also it does not match with Jordan stock market. Furthermore, figure (7) and (8) show that a similarity between Saudi Arabia stock market and Jordan stock market and between United Arab Emirate and Jordan stock market. Finally, one can say that Jordan stock market like other worldwide markets has been affected by global financial crisis, but like other Arab countries markets Jordan stock market respond to global financial crisis lately.

Conclusion:

Correlation analysis shows that there is no significant correlation between ASE general index and its variables with NYSE. Also it shows that there are strong relationships among ASE market sectors and between them and general ASE general index. Result also indicated that there is a week and not significant relationship between ASE general index and NYSE, and there is no significant effect of NYSE on ASE general index, where Beta=0.087, Sig.=0.749. Multiple regression result shows a week and not significant relationship between ASE sectors and NYSE. At the same time, it shows that there is no significant effect of NYSE on any of the three ASE sectors: Jordanian financial sector, where Beta=-0.088, Sig.=0.914, Jordanian services sector, where Beta=1.634, Sig.=0.524, and Jordanian industrial sector, where Beta=-1.465, Sig.=0.484. But the curves show that the global financial crisis had delay effect on Jordanian market, while the global crisis started and spread in 2008, Jordanian stock exchange market dropped down in 2009. At the same time, almost all markets started their recovery within one or two years, while ASE still suffering until now i.e. delay response and delay recovery. The curves also show that the behavior of ASE is similar to other Arab countries (gulf countries) and dissimilar to U.S. and U.K. stock exchange markets. Also it does not match with European and Chinese stock markets.

Limitations/Recommendations:

Though this study used different sources and sites to collect the data, the main source was ASE market database. ASE market database may not reflect the full picture of Jordanian economy, therefore widening the data sources is recommended for future research. Also, this study mainly considered Jordanian market; therefore, generalizing results of a Jordanian setting to other countries may be questionable. Therefore, this study recommends extending the analysis to other Arab countries. Further testing of other countries' stock markets will help mitigate the issue of generalizing conclusions on other stock markets.

Contributions:

The empirical results of this study were built on previous researches of the relationship between economic sectors (stock exchange markets) performance and global financial crisis. This study also extends prior research’s viewpoint about the relationship between country's economic sectors performance and global financial crisis.

Practical Implications and Expected Value:

The research makes significant theoretical and empirical contributions to literature regarding influence of global financial crisis and country's economical sectors (stock markets) performance. The research results might help both academicians and practitioners to be more ready to understand the relationship between and among countries' markets. The research results may be important to organizations, Amman stock exchange market players, decision makers and government. It may help organizations, industries, decision makers and government to design and build strategies to face and counteract challenges and crisis in the future. Also, it may help people on how to rationalize their decisions during future crisis.

The learnt lessons:

The global crisis is silently saying the world is global, and anything happened in one country (especially giant country) will affect the whole word. Every person every where will be affected by anything going on the earth, as whole world get the benefit from the development of technology (transportation, communication and others), every body 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.

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