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The Impact of the Global Financial Crisis on the Debt, Liquidity, Growth, and Volume of Companies in Palestine Stock Exchange

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ABSTRACT

This study examines the magnitude of the potential impact of the global financial crisis on the companies listed in Palestine stock exchange and its effects on the Palestinian economy. And that mainly by knowing, if the period after the crisis debt ,liquidity ,growth ,turnover ratios is not significantly differing from pre-crisis era. To achieve the objectives of the study, a sample of 23 Palestinians companies listed at Palestine stock exchange was studied. The study covered the period from the period before the global financial crisis (2006 ,2007), and the period after the global financial crisis (2009,2010). T-Tests and Mann-Whitney-U Tests were used to test the ninth hypotheses of the study. It was concluded that the impact of the global financial crisis is limited .Which means there are no differences after the financial crisis compared to the pre- financial crisis variables.

Keywords: Palestine, Financial Crisis, Debt Ratio, Current Ratio, Whitney-U Test,Growth Ratio

1. Introduction

The first signs of the global financial crisis appeared in September 2008 in the United States and Europe then spread to the rest of the world. Most of the the countries have been affected in a varying degrees by the finiancial crisis.

The Palestinian economy has special circumstances; basically it is treated as a follower to the Israeli economy and it is more dependent on consumption. The Palestinian economy suffers from a deficit in the trade balance with Israel. Many Palestinian economists pointed out that the impact of the financial crisis on the Palestinian economy has been limited. But they also indicated some of the effects like the reduction of the amount of grants and aid that reach the Palestinian people and the Palestinian government. In addition to the losses of some Palestinian investors in the Arab and international stock exchanges.

The researchers believe that there was no sufficient scientific researches that show the impact of the financial crises on the Palestinian economy in general and its impact on public companies in particular. This study will try to identify the impact the global financial crisis on the Palestinian companies. Specifically those listed in the Palestinian Stock Exchange market in terms of the extent of difference in debt ratios, liquidity ratios, growth rates and trading rates in the stock market before and after the global financial crisis. The study findings will enable the relevant institutions, investors and researchers to identify the impact of the global financial crisis in a scientific manner; therefore take procedures that will improve the performance of companies in particular and the Palestinian economy in general.

This study aims to consider the magnitude of the potential impact of the global financial crisis on the companies listed in Palestine stock exchange and its effects on the Palestinian economy. The researchers belive that this is attainable only through comparing pre crisis and after crisis periods in terms of debt ,liquidity ,growth and Turnover Ratios.

2. Literature Review

Many international studies were conducted on the impact of the financial crisis (the collapse of the financial markets in 2008). These studies will be discussed in this research in details. Not all aspects of the financial crisis were discussed in the previous studies; that what makes this study different besides the methodology it adopts for this sake.

One study by Kesimli and Gunay (2011) tried to investigate the effect of the financial crises on the working capital of the real sector in Turkey. It has analyzed the current assets and liabilities related ratios. It has been found that 45 ISE companies, chosen among others, have been affected by the financial crisis to a small extent. Soufan *et al.* (2012) investigated the reasons of the global financial crisis and its impact on the Arab countries. This study used a descriptive statistical method .The results showed that the economic growth rates and the interest rate slowed down .The reserves in the central banks and the market value of the financial market showed a significant decline. These results show the negative impact of the financial crisis on the Arab countries. Another study by Shafique *et al.* (2008) tried to undertstand the effect of global financial crisis on the Islamic banking system. The findings of the study indicated that the Islamic banking system has also been affected by the global financial crisis; however the performance of the Islamic banks during global financial crisis was better than the other banks. The reason, according to the study, was the free interest policy of the Islamic banks which reduced the risk of loss; something the other banks could not avoid, and so the losses were greater because of the crisis. Another study by Kazi *et al.* (2011) investigated the contagion effect between stock markets of U.S and sixteen OECD countries due to Global Financial Crisis. To achieve the goals of the study, The researchers apply the Dynamic Conditional Correlation model (DCC) to daily stock price data from 2002 to2009. To examine the contagion effect, the test results were compared for the mean of the DCC coefficients in crisis period, and whether they differed from that in the pre-crisis period. The study found a significant increase in the mean of DCC between U.S and OECD stock markets under such model.

In a study by Claessens and Kose (2013) the researchers focused on three specific aspects of the financial market, namely the main factors of the financial crises, the main types of the financial crises, and the effects of the the real estate sector on the financial crises. The study showed that it is still a challenge to determine the causes of the financial crisis once and for all. Many theories have been developed over the years about the underlying causes of the crisis. It was found that the rise in credit and asset markets turned out to be the main driving force for most of the crises episodes.The study has also focused on the main types of crises, literally, currency crisis; sudden stop crises (or capital account or the balance of payments); debt crises; and banking crises. The study has found that significant losses in production are common in many crises and other macroeconomic variables (consumption and production and investment) which usually record significant declines. Financial variables such as credit and asset prices usually follow qualitatively similar patterns across crises.

Taylor John (2009) examines the role and actions of government intervention in the financial crisis that began in August 2007. The experimental findings of the study have shown that the procedures and government interventions have caused and prolonged the negative aspects of the financial crisis, mainly by the error in determining interest rates. Misdiagnosis of the problems in the credit markets and the banking system and lack of balance between liquidity and risk were due to more focus on liquidity rather than risk. Finally Colander *et al.* (2009) reviewes alternative hypotheses for the causes of the global financial crisis. According to the study, the global crisis caused by global imbalances were the result of the excess of demands in the United States. Amongst other reasons were the public debt in the United States arising from the wars fought by the United States, tax cuts, the excessive consumption by households supported by the wealth, the housing bubble, the lack of appropriate financial regulations, and the collapse of Lehman Brothers, which led to the freezing of the credit markets and the rise of unemployment rate at the national level. The average duration of unemployment is still on the rise, and the share of the unemployed in the long term is at unprecedented levels.

3. Research Methodology

The research relied on data from Palestine Stock Exchange .It covered the period before the global financial crisis (2006 ,2007), and the period after the global financial crisis (2009,2010) .The sample of the research consists of 23 companies. In order to understand the impact of the financial crisis on the debt, liquidity, growth ,and volume of companies in Palestine Stock Exchange, the era of 2006-2007 is accepted as pre-crisis, and 2009-2010 as being the period after crisis. In this research, ninth hypotheses will be investigated in the analysis. The hypotheses for the debt are:

H0: Total debt to total assets in the after crisis era is not significantly different from the pre-crisis era.

H0: Short term debt to total assets in the after crisis era is not significantly different from pre-crisis era.
Hypotheses for the liquidity and profitability:
H0: Cash Ratio in the after crisis ear is not significantly different from pre-crisis era.
H0 **:** Return On Assets in the after crisis era is not significantly different from pre-crisis era.
H0: Receivables-to Current Assets Ratio in the after crisis ear is not significantly different from pre-crisis era.
H0: Current Assets-to-Total Assets Ratio in the after crisis era is not significantly different from pre-crisis era.
Hypotheses for the growth and volume:
H0: Growth of the company Ratio in the after crisis era is not significantly different from pre-crisis era.
H0: Turnover Ratio in the after crisis era is not significantly different from pre-crisis era.

Table-1. The research variables by name and measurement

donation	**the name**	**How they measured**
var00001	total debt to total assets	total debt / total assets
var00002	short term debt-to-Total Assets	short term debt/Total Assets
var00003	short term debt -to- total debt	short term debt /total debt
var00004	Return On Assets	net income/total assets
var00005	Cash Ratio	(cash on hands +trading securities)/total assets
var00006	Receivables-to Current Assets	Receivables/Current Assets
var00007	Current Assets-to-Total Assets	Current Assets/Total Assets
var00008	growth for the company	(sales2 -sales1)/sales1
var00009	Turnover Ratio	(No. of Shares Traded / No. of Subscribed Shares) * 100%

4. Results and Analysis

Table 2 shows the descriptive statistics before the financial crisis. It was shown that the average of total debt to total assets was about 39%, the average of short term debt-to-Total Assets was 17% , the highest value was 59%, the lowest value was zero, and the highest value of the Return On Assets was 29%. The highest value of Receivables-to Current Assets was 71%, and that refers to the Arab Palestinian Shopping Centers accounts (receivables amount to 435,086 JD and Current Assets amount to 613,435JD).

Table-2. Descriptive Statistics

	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**	**Skewness**		**Kurtosis**	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
VAR00001	46	.02	.91	.3931	.25884	.372	.350	-1.100	.688
VAR00002	46	.00	.59	.1679	.15337	1.549	.350	2.153	.688
VAR00003	46	.00	1.00	.5471	.35928	-.313	.350	-1.501	.688
VAR00004	46	-.32	.29	.0322	.08237	-1.137	.350	8.648	.688
VAR00005	46	.00	.79	.2049	.22203	1.222	.350	.414	.688
VAR00006	46	.03	.71	.3056	.16721	.697	.350	-.167	.688
VAR00007	46	.07	.99	.5122	.29360	.300	.350	-1.212	.688
VAR00008	46	-.84	17.76	.4546	2.70084	6.160	.350	39.715	.688
VAR00009	46	.01	1.36	.1878	.24195	3.178	.350	12.550	.688
Valid N (listwise)	46								

Table 3 shows the descriptive statistics after the financial crisis. It was shown that the average of the total debt to total assets was about 39%, so we can claim that the ratio has unchanged. The average of short term debt-to-Total Assets was 15%.The percentage dropped from what it was before the financial crisis. The highest value was 59%, the lowest value was zero. The highest value of the Return On Assets was 18% and the highest value of Receivables-to Current Assets was 98%.

Table-3. Descriptive Statistics after

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
VAR00001	46	.04	1.08	.3939	.26449	.820	.350	-.373	.688
VAR00002	46	.00	.59	.1538	.14146	1.702	.350	3.228	.688
VAR00003	46	.00	1.00	.4936	.35504	-.032	.350	-1.373	.688
VAR00004	46	-.14	.18	.0443	.06787	-.347	.350	.579	.688
VAR00005	46	.00	.74	.1940	.22014	1.182	.350	.012	.688
VAR00006	46	.07	.98	.5019	.24501	.251	.350	-.803	.688
VAR00007	46	.01	1.17	.3549	.31090	1.116	.350	.244	.688
VAR00008	46	-.99	261.22	14.1030	53.75289	4.063	.350	15.920	.688
VAR00009	46	.00	1.01	.1664	.18235	2.563	.350	9.447	.688
Valid N (listwise)	46								

There were some high or extreme as the series don't follow the normality .So the researchers will be relying mainly on Mann-Whitney Test in order to know if the differences between the nine variables before and after the financial crisis are significant or not.

Normality test

The ninth hypothesis was examined by MannWhitney U Test& T-test. The results were shown in tables 4 and 5. According to the tables, the Z value for the first hypothesis is -.016 and it is statistically not significant. Besides the T-test value in table 5 which was 0.626 for the first hypothesis is statistically not significant, and so the null hypothesis is accepted and the alternative one is refused. Concerning the second hypothesis, the Z value is -.609 and it is statistically not significant. Also the T-test value in table 5 which was 0.73 for the second hypothesis is statistically not significant. So the null hypothesis is accepted and the alternative hypothesis is refused. Concerning the third, fourth and fifth hypotheses, the values are statistically not significant. Besides the T-test values in table 5 for the hypotheses are statistically not significant, so the null hypotheses are accepted and the alternative hypotheses are refused.

Concerning the sixth and seventh hypotheses, Z values are -4.014 , and -2.725 respectively. The values are statistically significant. The T-test values in table 5 were 2.085 1.564. These values are statistically significant at the level 1%. So the null hypotheses are refused and the alternative hypotheses are accepted. Finally, the Z values in hypotheses 8 and 9 are statistically not significant. Besides the T-test values in table 5 for the hypotheses are statistically not significant. Therefore, the null hypotheses are accepted and the alternative hypotheses are refused.

Table-4. Mann-Whitney Test

	VAR00001	VAR00002	VAR00003	VAR00004	VAR00005	VAR00006	VAR00007	VAR00008	VAR00009
Mann-Whitney U	1056.000	980.000	964.000	996.000	1017.000	544.000	709.000	997.000	1038.000
Wilcoxon W	2137.000	2061.000	2045.000	2077.000	2098.000	1625.000	1790.000	2078.000	2119.000
Z	-.016	-.609	-.734	-.484	-.320	-4.014	-2.725	-.476	-.156
Asymp. Sig. (2-tailed)	.988	.542	.463	.628	.749	.000	.006	.634	.876

a Grouping Variable: VAR00010

Table-5. Two-Sample Kolmogorov-Smirnov Test

		VAR00001	VAR00002	VAR00003	VAR00004	VAR00005	VAR00006	VAR00007	VAR00008	VAR00009
Most Extreme Differences	Absolute	0.13	0.152	0.174	0.174	0.109	0.435	0.326	0.217	0.13
	Positive	0.087	0.043	0.065	0.174	0.109	0.435	0.022	0.196	0.087
	Negative	-0.13	-0.152	-0.174	-0.152	-0.109	-0.022	-0.326	-0.217	-0.13
Kolmogorov-Smirnov Z		0.626	0.73	0.834	0.834	0.521	2.085	1.564	1.043	0.626
Asymp. Sig. (2-tailed)		0.829	0.661	0.49	0.49	0.949	0	0.015	0.227	0.829

a Grouping Variable: VAR00010

5. Conclusions and Analysis

The study shows that the impact of the global financial crisis is limited.There are no differences between the period after the financial crisis compared to the period before the financial crisis after testing the variables. According to tables 4 and 5, the first five hypotheses are accepted as there were no significant differences between the two periods, after and before the financial crisis. Hypotheses 6 and 7 were refused as the differences between the two periods were not significant as well.

Hypotheses for the growth and volume are accepted again for the same reason as the previous ones. This is in line with some studies by Hajj (2011) and Kesimli and Gunay (2011) which showed that the impact of the global financial crisis will be limited, and the most important is the trade that depends on the Israeli market, the local stock market, and the remittances from abroad. This contrasts with some studies by Soufan *et al*. (2012) and (Claessens and kose, 2013) which showed the negative impact of the financial crisis on the Arab countries.

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