Crisis management: financial crisis and fund combination

Gestión de crisis: Crisis financiera y combinación de fondos

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ABSTRACT

The main purpose of this research is to investigate the relationship between the financial crisis and fund structure in companies admitted to Stock Exchange during the period of 2001-2017. To collect theoretical foundations of this research, the library method and to collect statistical information from financial statements and notes It has been used along with it. In terms of purpose, the research method is applied research, in terms of substance and content, is a correlation type that is used to explore the correlation between variables by post-event method. The results of information analysis show that there is a significant relationship between financial crisis and fund combination, and the financial crisis has a positive effect on the fund combination of the company, as well as the findings from the sub-hypotheses, which shows that the observed effect and the growth of corporate assets have a negative effect on the structure have to fund.

Key words: economy, financial crisis, statistical information, fund combination, negative effect

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RESUMEN

El objetivo principal de esta investigación es investigar la relación entre la crisis financiera y la estructura de los fondos en compañías admitidas en la Bolsa de Valores durante el período 2001-2017. Para recopilar los fundamentos teóricos de esta investigación, el método de la biblioteca y para recopilar información estadística de los estados financieros y notas, se ha utilizado junto con ella. En términos de propósito, el método de investigación es la investigación aplicada, en términos de sustancia y contenido, es un tipo de correlación que se utiliza para explorar la correlación entre variables mediante el método posterior al evento. Los resultados del análisis de la información muestran que existe una relación significativa entre la crisis financiera y la combinación de fondos, y la crisis financiera tiene un efecto positivo en la combinación de fondos de la empresa, así como en los hallazgos de las sub hipótesis, lo que demuestra que El efecto observado y el crecimiento de los activos corporativos tienen un efecto negativo en la estructura que deben financiarse.

Palabras clave: economía, crisis financiera, información estadística, combinación de fondos, efecto negativo

1. Introduction

The main goal of corporate governance is to maximize the value of the stock market, that is, the wealth of shareholders in joint stock companies. In this regard, the functions of financial management of companies are divided into three categories of investment, financing and profit sharing (Ataei Zadeh, 2014). Financing decisions that ultimately determine the company's financial structure or structure are important because such decisions lead to a firm's optimal fund structure.Financial management decisions are critical to improving corporate finances, but unwise decisions can ultimately lead to a financial crisis. For a new business unit, nothing is more important than providing fund (Baral, 2004). However, the cash-delivery method has a great impact on the success of an institution. This argument applies not only to new business units, but also to all business units. How companies choose a combination of debt and fund in their fund structure depends on a variety of factors, including corporate characteristics, economics, managerial outlooks and goals. The financial literature provides different perspectives on how to make managers' fund structure decisions (Altman, 1992).The financial leverage has been introduced as a factor in determining the company's financial capability, and it is believed that the financial leverage increases the degree of financial distress (Gonzalez, 2013).

The financial risk increases the company's risk. Many researches used their financial leverage in their models as a measure of corporate risk or fund structure costs. Various studies have assessed the impact of leverage on corporate performance negatively, suggesting that corporate leverage increases their risk. The fund structure of firms in different countries is significantly different, so managers have to use various factors such as economic factors and corporate features when deciding on the optimal composition of fund structure, and they must make decisions about financing and the effects that these factors have on the structure Invest, pay attention (Brealey, 1984). In addition, financial managers should consider the internal characteristics of the company and the economic factors to create the appropriate financial structure and, in the light of these variables, seek to maximize the value of the company. Today, with the growth of commerce and commerce, and the creation of complexity in economic and commercial relations, financial tasks have changed dramatically (Gordon, 1974). The emphasis of governments on economic growth has made companies and institutions more and more expanding, and these tasks have become more complicated (Jefferson, 2001). On the other hand, technological advances and widespread environmental changes have led to an accelerated economic growth, and increased competition has grown, due to the growing competition of firms, limited profitability and increased bankruptcy (Murillo, 2013). The rate of financial crises in the world in recent years is more than ever. In the last two decades, figures and numbers indicate an unprecedented increase in bankruptcy. The existence of financial crises in a country is an important economic indicator that attracts public attention. Also, the economic costs of bankruptcy are also very high.

Therefore, the ability to predict the financial crisis and prevent its occurrence is essential and prevent the inappropriate allocation of scarce economic resources. The importance of predicting a financial crisis has always been increasing in corporate ownership; global economies are today facing the dangers of corporate liabilities, especially after the collapse of major organizations such as Vervelkom and Enron, and that one of the objectives of the Basle II Laws Reducing credit risk, being aware and sensitive. On the other hand, bad corporate finances also cause disadvantages for different segments of the society, especially investors, including shareholders and creditors, which not only investors but also senior executives and accountants and auditors are also interested in scientifically predicting the financial condition of companies (Whitaker, 1999).The corporate financial crisis creates huge losses for investors, creditors, managers, workers, suppliers and customers. If someone finds out the cause

of the collapse of the company, it will save the firm from the necessary death with the necessary planning.Therefore, the prediction of the corporate financial crisis, the prerequisite for preventing the financial crisis, is the same as the "prevention is better than cure".

Therefore, according to the mentioned materials, the main purpose of this paper is to investigate the relationship between financial crisis and fund structure in companies admitted to the exchange. Few Experts investigated the impact of the financial crisis on the fund structure of British companies. Their results show that companies first increased their leverage ratio from the pre-crisis (2006 and 2007) to the crisis (2008 and 2009), and then reduced it after the crisis (2010 and 2011) (Higgins, 2007) Companies use debt and equity to finance themselves, but they still rely on short-term debt instead of long-term debt over the course of the year.The reasoning of the relationship between fund structure and corporate performance during the financial crisis is largely overshadowed by arguments for the creation of value of debt, but it can be summed up in summary: the net effect of leverage on firm performance is a result of various effects. If the financial crisis (often a debt ratio) is more costly and more important than debt discipline roles, companies with more debt will have more functional problems, while if the financial crisis forces the company to force its operating efficiency and efficiency To expand beyond the cost of the financial crisis, then companies that have more debt will certainly have better performance during the financial crisis (Gonzalez, 2013). In the real world where firms and companies operate, optimizing financial resources is one of their most important issues.

Optimizing financial resources maximizes returns with the lowest cost of fund. Firms do not just use one source (fund or debt) to finance, but they use a combination of them. The important thing is that companies have to choose which financial resources to choose from and how much to use it in their fund mix to achieve their main goals. Definitely identifying different ways of financing and using the right financial tools will help management to make more informed decisions and benefit more from companies, and the optimal use of financial resources will give managers the opportunity to maximize the company's overall value and the wealth of the owners of the fund Increase Companies can finance domestic resources (through accumulated profits) or external resources (through the sale of shares or debt). Financing methods to sustain business and run profitable projects in the company's growth process are very effective and lead to the company's continuing life in competitive markets. The prediction of the continuity of business units and future periods is one of the key elements in decision making for investment. One of the methods for predicting the continuity of companies is the use of predictive models of financial crisis. The financial crisis is a condition in which many financial institutions or assets suddenly lose much of their value. In the financial sector, a firm is once considered to be in a financial crisis when it faces difficulties in fulfilling obligations to its creditors. Debt of a company may be used to finance its operations, but this will put at greater risk of experiencing a financial crisis. Therefore, if the corporate financial crisis does not improve, it will lead to bankruptcy. In one academic study on financial malpractice, Gordon defined it as reducing the company's profitability, which is likely to be unable to repay principal and interest. Most companies are entering a financial crisis as a result of poor management and economic distress. In the early stages of the financial crisis, the average operating profit of the company is not adjusted to ASA, and is measured after controlling other factors that significantly change the company's performance. The results of Jensen's positive assertions suggest that the financial crisis is a corrective action that improves corporate performance. From an economic point of view, the company's financial crisis is a natural phenomenon that should not be ignored. It is often in the latent period that economic losses occur and property returns fall. The best situation for the company is to discover the problem at this stage. The cash outflow stage begins when there is no cash available to the entity for the first time to meet current obligations or urgent needs. However, it may have several physical assets (Moghadam, Yansari, 2012). The problem here is that the assets are not sufficiently criticized and that the fund is imprisoned. The hypotheses in this study have been formulated with regard to the study of past research and theoretical foundations; The main hypothesis

- There is a significant relationship between fund structure and financial crisis. Sub-hypotheses
- There is a significant relationship between tangible assets and fund structure.
- There is a significant relationship between the growth of corporate assets and fund structure.

2. Methodology

The method of this research is based on the nature and content of the research as correlation, which was used to discover the correlation between variables by post-event method. The present research is descriptive in terms of type of work, descriptive research and in terms of purpose, is an applied research

that uses real information and various statistical methods to reject or not reject hypotheses. In this study, based on the type of data and available statistical analysis methods, the panel data method was used.For the collection of theoretical sources, subject literature and theoretical research topics, library resources (books, articles and journals in the field of research), dissertations, international authoritative journals available online on the Internet and other authoritative scientific databases were used. The required data from the audited financial statements and notes accompanying the audited financial statements of the companies admitted to the stock exchange were extracted from the novation software and the Codall site and the financial information processing center.The independent variable of this research is the financial crisis, which is a situation in which financial institutions or financial assets suddenly lose value to a large extent. In this research, Altman (1993) model has been used to calculate the financial crisis variable. This model, which is calculated based on the values of some variables, indicates the probability of a financial crisis occurring in companies. The smaller the amount obtained from this model, the greater the probability of a financial crisis for the company.This model, which is calculated based on the values of some variables, indicates the probability of occurrence of financial crisis in the companies. The smaller the size of the model means the greater the likelihood of a financial crisis for the company.

$CRISIS_{it} = X_1+X_2+X_3+X_4+X_5$

3. CRISIS: Financial crisis in company

$$CS_{it} = \beta_0 + \beta_1 Cisis_{it} + \beta_2 Tangibility_{it} + \beta_3 Growth_{it} + \varepsilon_{it}$$

X1; Ratio of working fund to total assets, X_2;Ratio of accumulated profits to total assets, X_3;Profit before interest and taxes to total assets, X_4;The ratio of the market value of equity to the total value of the total debt,X_5; The proportion of sales to total assets. The lower $CRISIS_{it}$ in this model is the degree of corporate financial crisis. Companies with $CRISIS_{it}$ higher than 2.9 enter a healthy corporations group with $CRISIS_{it}$ less than 23.1 as bankrupt companies, and if $CRISIS_{it}$ reaches between 1.32 and 2.9, it is considered as a doubtful area. And the area should be interpreted with caution. The dependent variable of this research is the fund structure, which is derived from the ratio of total debt to total adjusted assets, indicating how much debt has been used to finance the company. The controlling variables of this research include intangible assets and company finance growth. Tangible assets that are derived from the ratio of fixed assets divided by total assets are fixed assets is the difference between total assets and current assets.The growth of the company's assets, which represents is total assets minus the assets of the previous year and divided by assets of the previous year.Model 2 is used to test the main hypothesis and sub-assumptions (Ataei Zadeh, 2014).

CS; Fund Structure, Tangibility; Visible assets, Growth; Growth of company assets, Crisis; financial crisis, $\varepsilon_{i,t}$; Random error of company i at the end of year t.

The actual data needed for this research is gathered from the actual information of the companies admitted to the stock exchange, and companies with specific requirements are selected as statistical samples.At the end of the fiscal year, during the reviewed period (2014-2018) there is no change in the fiscal year, the required information is available during the period under review, not part of the financial intermediation, investment, banks and holding companies. By applying the above conditions. The sample number was 122 companies equal732 to years. Statistical analysis was performed on two dimensions of inferential statistics and descriptive statistics. In descriptive statistics, mean, mean, standard deviation, elongation, skewness and inferential statistics, the panel data or combination data was used. To determine the optimal method Using the chow or F test, the appropriate tests were performed. In the present study, for information between the hypothesis variables, information about the sample companies, the initial calculations were made in the software spreadsheet, and the data were prepared for analysis, then the Eviews8 software was used to make the final analysis.

4. Results

As shown in Table 1, the F FLymer test probability of the research model is less than 5%. Therefore, a panel method is used to estimate the model. Since the probability of test is less than 5%, constant effects method is used to estimate the research model.

Table1. The results of the F lemmer test and the Hausman test

	Test	The statistics	Possibility	Result
Research model	FLymer	15/9597	0/0000	Panel Data
	Hausman	29/3901	0/0003	Fixed effects
	$CS_{it} = \beta_0 + \beta_1 Cisis_{it} + \beta_2 Tangibility_{it} + \beta_3 Growth_{it} + \varepsilon_{it}$			

Main hypothesis: There is a significant relationship between financial crisis and fund structure.

Main hypothesis: There is a significant relationship between financial crisis and fund structure. In order to test this hypothesis, the results of model estimation presented in Table 2 have been used. The probability (or significant level) of F is 0, 0000 and since this value is less than 0.05, the assumption zero is rejected at the 95% confidence level, meaning the model is significant. The amount of camera statistics is Watson's 2/247, which indicates this lack of autocorrelation. The results of the determination coefficient show that approximately 88% of the variations of the variables dependent on the model of the independent and control variables of the model are explained. In general, the results show that the coefficient of financial crisis variable is 0/029979 which indicates the positive effect of financial crisis on fund structure, which according to the t-statistic of financial crisis variable is significant. According to the above, the main hypothesis of research Approved. This means that there is a positive and significant relationship between the financial crisis and the fund structure, with the rise of the financial crisis, the level of corporate fund structure also increases.

Table 2. Estimates of the research model

$CS_{it} = \beta_0 + \beta_1 Cisis_{it} + \beta_2 Tangibility_{it} + \beta_3 Growth_{it} + \varepsilon_{it}$				
Variable	Estimated coefficient	Standard error	Statistics t	Possibility
CS	0/645524	0/208443	3/096879	0/0021
Financial crisis	0/029979	0/007054	4/249671	0/0000
Visible assets	-0/295107	0/121142	-2/436049	0/0153
Growth of company assets	-0/016041	0/032959	-0/486696	0/6268
The coefficient of determination		0/907		
Adjusted coefficient of determination		0/877		
Durban-Watson		2/247		
F statistics		29/9513		
Probability (f statistics)		0/0000		

First sub-hypothesis: There is a significant relationship between tangible assets and fund structure. In order to test this hypothesis, the results from the estimated model of the intended model in Table 2 are used. The results show that the coefficient of variables of tangible assets is -0/295107 which indicates the negative effect of assets that are visible on fund structure, which according to the t-statistic tangible assets is significant. According to the above, the first hypothesis of the research can be verified. This means that there is a negative and significant relationship between the tangible asset and the fund structure, that is, with the increase of tangible assets, the level of corporate fund structure decreases.Second sub hypothesis: There is a significant relationship between the growth of corporate assets and fund structure.In order to test this hypothesis, the results of model estimation

presented in Table 2 have been used. The results show that the coefficient of growth of company's asset growth is -0.124160 which indicates the negative effect of the company's fund growth on the structure of the company's fund, but according to the t-statistic, the coefficient of variable of the company's asset growth is not meaningful. Accordingly, the sub-hypothesis cannot be considered. The second confirmed the research. This means that there is no significant relationship between the growth of corporate assets and fund structure in the sample. In this study, the relationship between financial crisis and fund structure in companies accepted in Stock Exchange with 122 statistical samples in the period of 2014-2009 was investigated.

The theoretical foundations of this research are extracted from the library method as well as statistical data from the financial statements of the companies accepted in the oversold exchange, and panel data is used to analyze the information.In this research, the financial crisis as an independent variable and fund structure as an associated variable, as well as the ratio of evident assets and the growth of company assets as control variables have been used.According to the analysis, according to Table 2, the probability of statistical t for the coefficient of financial crisis is less than 0.05. As a result, a significant relationship between financial crisis and fund structure is confirmed at 95% confidence level Placed. Therefore, the main hypothesis of the research is accepted and with 95% confidence it can be said that there is a significant relationship between financial crisis and fund structure. The positive coefficient of this variable (0.029979) suggests a direct relationship between the financial crisis and the structure of the fund of the companies. The result of the main hypothesis of the study is consistent with the results of Iqbal et al. (2014). Also, the probability of t statistic for the coefficient of variables of tangible assets is less than 0.05. As a result, a significant relationship between tangible assets and fund structure is confirmed at 95% confidence level. Therefore, the first sub-hypothesis of the research is accepted and 95 percent can be said that there is a significant relationship between tangible assets and fund structure. The negative coefficient of this variable (-0.295107) indicates an inverse relationship between the tangible assets and the fund structure of the companies. This means that there is a negative and significant relationship between tangible assets and fund structure, that is, with the increase of tangible assets, the level of corporate fund structure decreases. The result of the first hypothesis of this study is consistent with the results of Asadi's research (2014).

Also, the probability of t for the coefficient of growth of the company's asset growth is less than 0.05. As a result, a significant relationship between the growth of corporate assets and fund structure is confirmed at 95% confidence level. Therefore, the second sub-hypothesis of the research is accepted and with 95% confidence it can be said that there is a significant relationship between the growth of corporate assets and fund structure. The negative coefficient of this variable (-0.016041) suggests an inverse relationship between the growth of corporate assets and the structure of the fund of companies. This means that there is a negative and significant relationship between fund stock growth and fund structure, which means that the level of corporate fund structure decreases with increasing asset growth. The result of the second sub-hypothesis of this research is consistent with the results of the trustworthiness study and Montazeri (2013).

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