

The Effect of the Financial Constraints on the Liquidity of Stocks of Companies Listed in Tehran Stock Exchange

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Abstract: Financial constraints discussion is one of major and fundamental issues facing all companies. Financial constraints are that hinder the funding for all good investment. Inability to secure funds for investment may be bad credit and the inability to borrow or the inability to issue new stocks or absence of non-cash assets. In this study, the impact of financial constraints on the liquidity of the stock, citing data from 101 companies in the period 2009-2013 were reviewed. Financial constraints as the independent variable and the liquidity of the stock as the dependent variable and two variable company size, growth opportunities as control variables were considered. The results of hypothesis shown there is a significant relationship between the financial constraints and stock liquidity. Also with regard to the control variables there is a significant relationship between Company size and growth opportunities and financial constraints and stock liquidity.

Key words: Financial constraints, liquidity, company size, growth opportunities, Iran

INTRODUCTION

However, financial constraints is not meant the financial burden so financial pressure associated with economic pressure and risk of bankruptcy with financial constraints. In capital markets firms will not be able to follow all investment opportunities with value added. As a result, some of the firms that have attractive growth opportunities are less than the primary optimal level of investment that have a negative effect on performance, value and growth of the firm in the future (Poncet *et al.*, 2010). Therefore, one way to reduce the negative effects of exposure to the high cost of external financing for firms (firms with limited financial) is greater reliance on domestic financing sources, including cash flow and cash balance (cash assets).

When other sources of financing, including inadequate cash flow, cash can be valuable this means that foreign firms face financing constraints can use cash assets available for financing their essential expenses (Canaani Amiri, 2007). Liquidity is one of the concerns of those who attempted to trade their stocks or to manage their trading infrastructure. One of the most important indicators in the evaluation of market conditions, potential liquidity in its securities. The high level of liquidity in the stock reflects success of the market in clarifying information and price of securities close to their intrinsic value. The liquidity of the assets is: "the ability to buy and sell assets at the lowest possible cost and time," the

definition of liquidity in the absence of transaction costs met (Rezapour, 2010). The role of liquidity in asset value is very important.

This is because investors are concerned that if they sell their property is there appropriate market for them or not? No matter how capable the liquidity of the stocks is less that share will be less attractive for investment. Unless the holder to gain more efficiency. Liquidity is a function of the ability to quickly deal with the large volume of securities and the cost is low. This means that the asset prices from the distance of time between ordering and purchase of is not changed. The degree of liquidity of the investment is lower when its fair price doesn't come speedily. The liquidity of stock in the investment decisions in the formation of investment portfolio is effective. In other words, the investment rationale for stocks that have less liquidity charge more risk premium and expected return will be greater (Yahya-Zadeh *et al.*, 2007).

Most of the research in financial economics analyzes the consequences of incomplete in capital markets and thus financial constraints on the behavior of firms. The reality is that financial constraints can affect various aspects of the behavior and firm's performance (Hadlock and Pierce, 2010). For example, in developing countries financial constraints are seen as major obstacles of investment, economic growth and development (Musso and Schiavo, 2008). The higher friction in the capital market, increased cost of funding from outside

firms as a result, a number of firms that have attractive growth opportunities are less than the optimum amount invested and this would lead to lower growth, reduced performance and the value of the firm (Denis and Sibilkov, 2010), even if financial constraints can provide the firms exit of market (Musso and Schiavo, 2008, Abedi *et al.*, 2012b), as well as financial constraints can affect firm decisions on the choice of structure capital (Hennessy and Whited, 2007) and in some cases affect firm's return on equity (Chan *et al.*, 2010, Abedi *et al.*, 2012a), so that firms facing financial constraints gain less mean productivity.

MATERIALS AND METHODS

The study sample consisted of all firms listed in the Tehran Stock Exchange due to extension and by community size and some inconsistency between community members, community qualified to be elected as follows:

- Company from 2008 listed in Tehran Stock Exchange until 1392 in exchange was active
- Companies except banks, financial institutions, financial investment firms, financial intermediation and financial holding companies
- The end of the fiscal year is 29 March
- The companies in the study have not significant trade disruption
- The companies during this period have not fiscal year change

According to above discussed and restrictions finally by systematic and targeted removal as sample number of 101 companies was selected. The variables of this study were to test the hypothesis includes the independent variables, dependent variables and control variables:

In this study the financial constraints (KZ), independent variables and stock liquidity (LIQ) is the dependent variable. Control variables in the study are Company size (SIZE), growth opportunities (GROWE), this variable to study the impact of financial constraints on the liquidity of the stocks is reviewed.

RESULTS AND DISCUSSION

Descriptive indicator variables: Research variables are examined briefly in Table 1. This table contains an index that is used to describe variables. These indicators include measures of central, scattering parameters and indicators of the distribution.

Table 1: Descriptive indicator variables

Description	SIZE	GROWE	KZ	LIQ
Number	540	540	540	540
Average	5.7233	91970.41	-128940.8	1.158148
Middle	5.6878	1.2127	15.2035	0.5188
Standard deviation	0.5611	2302950	3227834.9	2.04176
Minimum	4.29063	-9231211	-73313395	0
Maximum	7.98889	52291307	12942174	8.912686
Total	3090.607	49664020	-69628047	625.4002

Research hypotheses testing: To test the hypothesis of the study, the following steps have been taken:

- Select sample firms among the population of companies in the regular systematic removal (that 108 companies were selected)
- Obtaining financial statements and other information required by the selected companies (using Exchange and Keddal site and Exchange applications such as Rahavard Nouvin)
- Ratios for selected companies using Excel software (Data compiled in Excel and then define the formulas in this application; the variables of interest were calculated)
- Using Rahavard Nouvin software version 3, Excel 2010, to calculate variables and SPSS software 22 based on the amounts provided

Summary and analysis: To test this hypothesis, the linear regression model was used to evaluate the relationship between study variables.

First hypothesis: financial constraints affect the liquidity of the companies' stocks

The first hypothesis regression model is as follows:

$$LIQ_{it} = 0.735 - 1.340 KZ_{it} + \epsilon$$

Studies conducted in the period from 2009-2013 and the results obtained from the tests and statistical analysis are summarized in Table 2 and 3, show given that sig (level of significance) statistics T and F in the model explained less than 5%. As a result, these data represent the first hypothesis is accepted, then it can be concluded there is a significant negative relationship between the financial constraints and liquidity of stocks. (Table 2 and 3) The second hypothesis regression model is as follows:

$$LIQ_{it} = 0.330 + 1.056 KZ_{it} + 0.074 SIZE_{it} + \alpha$$

Studies conducted in the period from 88 to 92 and results obtained from the tests and statistical analysis are summarized in Table 4 and 5, show given that sig (level of significance) statistics T and F in the model explained is less than 5%. As a result, these data indicate that the second hypothesis is accepted, and then the overall can said the size of the company effect on the relationship between financial constraints and liquidity of the companies' stock.

Table 2: Analysis of regression variance of variables financial constraints and liquidity of company stocks

Model	Sum of squares	Degree of freedom	Mean-square	F statistics	Significant level
Regression	0.010	1	0.010	5.828	0.016
Residuals	0.931	538	0.002		
Sum	0.941	539			

Table 3: regression coefficients for the variables of financial constraints and liquidity of company stocks

Model	Not standardized coefficients		Standardized coefficients	T-statistics	Significant level
	Standard error	B	Beta		
Constant	0.735	0.002		703.421	0.000
Financial constraints	-1.340	0.000	-0.104	-2.414	0.016

Table 4: Analysis of regression variance of variables financial constraints and liquidity of company stocks

Model	Sum of squares	Degree of freedom	Mean-square	F statistics	Significant level
Regression	0.935	2	0.467	45648.424	0.000
Residuals	0.006	537	0.000		
Sum	0.941	538			

Table 5: Analysis of regression variance of variables financial constraints and liquidity of company stocks

Model	Not standardized coefficients		Standardized coefficients	T-statistics	Significant level
	Standard error	B	Beta		
Constant	0.330	0.001		232.405	0.000
Financial constraints	1.056	0.000	0.008	2.456	0.014
Company Size	0.074	0.000	0.998	300.521	0.000

Table 6: Analysis of regression variance of variables financial constraints and liquidity of company stocks

Model	Sum of squares	Degree of freedom	Mean-square	F statistics	Significant level
Regression	1.526	2	0.763	0.704	0.495
Residuals	578.942	534	1.084		
Sum	580.468	536			

Table 7: Results of study and analysis of research hypotheses

ypothesis	Adjusted coefficient of determination	Watson camera	F statistics	Result
The first hypothesis	0.009	1.755	5.828	Confirmed
The second hypothesis	0.094	1.979	45648.424	Confirmed
The third hypothesis	-0.001	0.704	-0.001	Confirmed

The third hypothesis: growth opportunities effect on the relationship between and financial constraints and liquidity of the company's stock. If this hypothesis is the statistical expression, we will thus assume a linear relationship between two variables is rejected.

Studies conducted in the period from 2009-2013 and the results obtained from the tests and statistical analysis are summarized in Table 6, show given that sig (level of significance) statistics T and F in the model explained less than 5% however, adjusted coefficient of determination in the absence of growth opportunities in the presence of this variable is different and has changed as a result, the data suggest the hypothesis H0 rejected and H1 is accepted and reflect the third hypothesis is accepted so overall we can say any growth opportunities effect on the relationship between finance constraints and liquidity of the companies' stocks.

According to the results we can say that although the level of significance of 5% but the adjusted coefficient of determination from 0.009-0.001 reached the conclusion that growth opportunities effects on the relationship

between and financial constraints the liquidity of company's stock. Table 7:

CONCLUSION

In this study the impact of financial constraints on the liquidity of the companies' stocks evaluated and summary of results showed that there is a significant relationship between the financial constraints and liquidity of equity companies in general, the effects of company size and growth opportunities variables on the relationship between financial constraints and liquidity of companies' stock indicate the relationship between financial constraints and liquidity of the companies' stock. Generally the impact of financial constraints on the liquidity of the companies' stock was approved and significant negative relationship was found between the variables, so corporate managers recommended to increase sales and dividends and a favorable policy for the debts of the company, financial constraints have reduced the liquidity of the stock and will attract more

investors to the company's stock. Because investors looking for stocks with high liquidity. It is also recommended to investors in their investment, as a factor affecting the size of the companies show more interest.

It should be noted that inefficient of the Iran capital market and factors such as inflation as confounding factors can affect the results of the study by researcher control is not possible. And given that the sample of this research, systematic elimination method is used, caution must be taken in generalizing the results of sample to the population.

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