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Impact of Financial Leverage on Agency cost of Free Cash Flow

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A B S T R A C T

Investors and creditors tend to invest in firms that have high free cash flow, because is one of the tools evaluation of debt repayment and determination financial flexibility, is index of free cash flow .But the important problem about free cash flow is considered, the funds are agency problems . In this research, a main hypothesis and sub-hypothesis, by selecting the 74 firm from between firms listed on the Tehran Stock Exchange for a period of 5 years 2008-2013, the Panel method have been tested. The results show between agency costs of free cash flow and financial leverage, debt to equity Ratio and long-term debt ratio there was a significant negative relationship. Findings from the research side also show there was a significant positive relationship between agency costs of free cash flow with profitability, firm size, Q-Tobin ratio and firm ownership management.

Keywords: Free Cash Flow, Agency Cost, Financial Leverage, Debt to Equity Ratio, Long-term Debt Ratio.

INTRODUCTION

Cash flows have a fundamental role in many financial decisions and securities valuation models and methods of evaluating capital projects(Damodaran, 2016). Also in terms of inter-organizational information about cash flows in its shape allows for efficient administration and lead to optimal decisions in the areas of operational, investment and finance(Bertoni, Colombo, & Croce, 2010; Glaum, Schmidt, & Schnürer, 2016; Katehakis, Melamed, & Shi, 2016). In the conceptual framework of financial accounting that supplier is particular attention considered to cash flows and predicting its financial reporting purposes. The firm should have enough cash to be able to fulfill its obligations in maturities and other cash operations such as cash dividend (Álvarez, Sagner, & Valdivia, 2012; Gitman, Juchau, & Flanagan, 2015; Koller, Goedhart, & Wessels, 2010). Operating cash flow cash is that is obtained from operational activities of the business units but free cash flows, funds that to come after adjustments on operating cash flow. Free cash flows one of assessment criteria for financial health and assessment criteria for firm performance which can be important and useful applications for shareholders and managers. Free cash flow theory in 1976 was first introduced by (Dawar, 2014); Jensen and Meckling (1976);

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(Leland, 1998; Serrasqueiro & Caetano, 2015; Titman & Wessels, 1988). It should be noted that all people are naturally looking to increase their personal interests.

Hence, managers may also reason such as to remain in firm, get rewarded whether or not favorable to desire the firm's situation. Conflict of interest between managers and owners (shareholders) increases the risk of providing unreliable information (Chalak & Mohammadnezhad, 2012; K. Y. Chen, Elder, & Hung, 2010). Expenses that this condition is imposed to shareholders refer to of the term "agency costs of free cash flows". When firms are faced with high levels of free cash flows managers will also increase the amount of opportunistic behavior. With the increase in financial leverage gradually the amount of cash flow as a result the amount of cash available declines to managers on how to use the firm.

A REVIEW ON RESEARCH LITERATURE

Gul and Tsui (1997) found a direct relationship between free cash flow and earnings management in firms with low growth.

Jones and Sharma (2001) investigated relationship between free cash flow and earnings management in Australia and New Old Economy firms and concluded that there is a significant and positive relationship between free cash flow and earnings management in old economy firms.

Chung, Firth, and Kim (2005) Viewed 22,576 firms in the U.S. with a 13-year period found there is a significant and positive relationship between free cash flow and earnings management.

Aman, Pourjalali, and Teruya (2006) in 155 listed firms in the Malaysia Stock Exchange found there is a significant and positive relationship between free cash flow and earnings management.

F. Chen, Hope, Li, and Wang (2011) in research investigated effect of free cash flow and institutional shareholders on earning management. The results show that there is a significant and positive relationship between free cash flow and earnings management in firms with low growth.

Chalak and Mohammadnezhad (2012) in research investigated effect of gradual increase in financial leverage, free cash flow and firm growth on earning management in listed firms in Tehran Stock Exchange. The results show that free cash flow and firm growth has been effective factors on earning management.

Bhundia (2012) in Stock Exchange of India found there is a significant and positive relationship between free cash flow and earnings management.

The research results of Khan, Kaleem, and Nazir (2012) show that there is a significant and negative relationship between free cash flow and financial leverage.

METHODOLOGY

This study is applied and it is a quasi-experimental design. Financial data is derived from financial statements and firms reports. Research data from sample firms are obtained resources such as Rahavard Novin software and Tadbir pardaz software and Tehran Stock Exchange website during fiscal years 2008 to 2013; also is used SPSS and E-Views software for data processing. To test the research hypotheses, to determine the relationship between the dependent and independent variables, was used the multiple regression. Sampling with used systematic method and was based on the following criteria:

The selected firms are not banks, financial institutions, investment and leasing.

To compare the observed variability, financial year ending 29 March each year.

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The firm has not changed fiscal year during 2008 to 2013.

The firm is listed on the Tehran Stock Exchange until the end of 2008.

The financial statements of these companies are available.

Research hypotheses:

Considering the above criteria, were selected 37 firms of the firms listed in Tehran Stock

Exchange, The research hypotheses and regression model are:

H₁: There is a significant relationship between free cash flow and financial leverage.

H₍₁₋₁₎: There is a significant relationship between free cash flow and debt to equity ratio.

H₍₁₋₂₎: There is a significant relationship between free cash flow and long-term debt ratio.

$$[[FCF]]_{(i,t)} = \beta_0 + \beta_1 D\&E_{(i,t)} + \beta_2 [[LTDR]]_{(i,t)} + \beta_3 [[PRFT]]_{(i,t)} + \beta_4 [[SIZE]]_{(i,t)} + \beta_5 [[TOBINQ]]_{(i,t)} + \beta_6 [[MRG]]_{(i,t)} + \varepsilon_{(i,t)}$$

Where:

[[FCF]]_(i,t): Free cash flow of firm I in year t

D&E_(i,t): Debt to equity ratio of firm I in year t

[[LTDR]]_(i,t): Long-term debt ratio of firm I in year t

[[PRFT]]_(i,t): Profits of firm I in year t

[[SIZE]]_(i,t): Size of firm I in year t

[[TOBINQ]]_(i,t): Tobin Q firm I in year t

[[MRG]]_(i,t): Management ownership firm I in year t

RESULT

Table1. Results of Data Analysis

Description	F-Statistic	Significance level	Test Results	
Limer test(Chow)	7.02	0.008	confirmed	
Description	Chi Square	Significance level	Test Results	
Hausman Test	54.34	0.0002	confirmed	
Description	t-Statistic	Coefficient	Significance level	Test Results
Debt to equity ratio	-5.17	-0.004	0.004	confirmed
Long-term debt ratio	-3.8	-0.019	0.01	confirmed
Profits	3.56	36.57	0.01	confirmed
Size of firm	5.39	0.054	0.01	confirmed
Tobin Q	5.05	0.056	0.01	confirmed
Management ownership	3.33	0.763	0.01	confirmed

According to results of table 1 F-statistic with the 7.02 was significant at 95% level of the Limer test (Chow) soap proved based on the ability to perform a regression, also chi square value with the 54/34 at 95% level of significance and thus confirmed the hypothesis of fixed effects and will be panel regression model with fixed effects. Based on results of above table debt equity ratio coefficient with the -0/004 and t-statistic with the -17.5 is significant at the 95% level. So the first sub hypothesis is confirmed that there is a significant relationship between free cash flow and debt equity ratio at 95% confidence level. Also long-term debt ratio coefficient with the 109.0 and t-statistic with the -8.3 is significant at the 95% level. So the second sub hypothesis is confirmed that there is a significant relationship between free cash flow and long-term debt ratio at 95%

confidence level. With respect to the first and second sub-hypothesis is confirmed the main hypothesis is confirmed that there is a significant relationship between agency costs of free cash flow and financial leverage.

CONCLUSION

According to this study there is a significant negative relationship between agency costs of free cash flows and debt capital ratio and long-term debt ratio. Therefore the results of this study have been inconsistent with free cash flow hypothesis of Jensen and Meckling (1976). One reason for this is that many of the firms have had negative free cash flows in Tehran Stock Exchange. Thus, according to the agency costs of free cash flow no logical reason for the increase is debt companies in Tehran Stock Exchange. Another reason is that interest and other debt obligations despite the proven principles of the firm and repayment them in the future cause reduce agency costs but debt increased due to an increase in funds available to managers also will be creates agency costs. The results indicate the opportunistic behavior of managers in earnings management increased control areas despite the success of opportunistic behavior of managers among the firms that have coincided with a gradual increase in financial leverage and high cash flow that lie ahead low growth opportunities an important step in limiting such behavior by managers and prevent adverse effects on financial reporting. Identifying factors and opportunities opportunistic behavior of managers and also its impact on financial reporting can help to auditors on how to deal with the financial statements of firms.

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