



The effect of the company's growth and financial indicators on leverage ratios of listed companies in Tehran Stock Exchange

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ABSTRACT

The aim of this study is to investigate the effect of the company growth indices and financial power on leverage ratios of companies accepted on the Tehran Stock Exchange. Sales, profit, asset growth, and financial power growth, have been used as the independent variables and leverage ratio was used as the dependent variable. Four different ratios were used to assess the company's financial leverage. Financial strength was measured by Altman bankruptcy model. To test the effect of independent variables and hypotheses and leverage ratio, data of 102 companies, accepted in Tehran Stock Exchange, during the time period 2003-2013, and also analysis of synthetic data were used. To estimate the appropriate model for testing hypotheses and synthetic data Chow and Housman tests were used. According to the results, the sales growth had significant negative impacts and asset growth and profit growth had significant positive effects on leverage ratios. Also, financial power had a significant negative impact on leverage ratios.

Key words: capital structure, financial leverage, financial power, financial crisis, sales growth, profit growth and growth of properties

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INTRODUCTION

Capital market development is one of the central pillars of economic growth and development in every society [1-2].

In this vein, after the end of imposed war, stock market in Iran have experienced a great deal of development including great ups and downs in stock exchange, large volume of assigning stock of governmental companies through Tehran stock market, and the increase in the number of companies accepted in Tehran stock exchange. The important role of stock market in financial development and effective development in Tehran stock exchange has resulted in a lot of researches in Tehran stock exchange [3].

Investors when investing in common stock should do extensive research. In other words, they must consider many factors while investing, because they convert their holdings into common stock [4-5].

In this study, the effect of growth factors and financial strength of the companies accepted in Tehran Stock Exchange have been investigated. Indices of growth include: sales growth, profit growth, and assets. Financial power of the company is measured by the Altman's index. Leverage ratio, also includes four variables of total debt, debt-to-equity ratio, the ratio of long-term debt to total assets and the ratio of long term debt to fixed assets. The effects of Growth indices and financial power on leverage ratios have been studied in four hypotheses.

Hypothesis

First hypothesis: sales growth has a significant negative impact on leverage ratios of companies listed on Tehran Stock Exchange.

The second hypothesis: net profit growth has a significant positive impact on leverage ratios of companies listed on Tehran Stock Exchange.

The third hypothesis: growth in assets has a significant positive impact on the leverage ratio of the companies listed in Tehran Stock Exchange.

The fourth hypothesis: the financial power has a significant negative impact on leverage ratio of companies listed in Tehran Stock Exchange.

Research Methodology

The present Study, according to categorizing based on goal is functional. It is of Analytical and descriptive nature that will deal with the correlation between the variable and from the time prospective, it is a kind of retrospective study. In order to analyze the data, the descriptive and inferential statistics were used. Multivariate regression techniques together with significance probing models (test F) and regression coefficients significance test (test t) have been used to test hypotheses. Data analysis was performed with the help of Eviews7 software.

Population and sample

The population of this study was companies listed on the Tehran Stock Exchange from 2003 to the end of 2011, for ten years.

426 companies (4260 firm-year) are considered as the study population.

RESULTS AND DISCUSSION

The results of hypothesis testing

The results of testing the first hypothesis

In this hypothesis, the dependent variable is financial leverage and independent variable is sales growth. Financial leverage was measured by four indices (FL1-FL4). According to the statistical t value for independent variable SGt with 95% level of significance, the coefficient of growth variable in first, second, and third models was not significant and in the fourth model was significant with value of .99 % . As a result, sales growth had a reverse effect on leverage ratios. Thus, the first hypothesis has been approved with an index measuring leverage ratio (IV) and had been rejected in other cases.

The results of testing second hypotheses

The dependent variable in this hypothesis, is leverage ratio (four indicators FL1-FL4) and the independent variable, is profit growth. For meaningful test coefficients, the t-statistic is used. According to the T statistics of the independent variable PGt at a significance level of 95 percent, profit growth in the first model was confirmed and in the second, third and fourth models it was not significant. In the first model the amount of profit growth at 99% level of significance (first index) have affected leverage ratio (with the first index). The variable factor has always been positive and profit growth had direct impact on leverage ratios. Therefore, the second hypothesis was approved by the first criterion of measuring leverage ratio.

The results of testing third hypothesis

The dependent variable, in this hypothesis, has been leverage ratio indices (FL1-FL4) and the independent variable, has been the asset growth. According to the statistical t value related to independent variable SGt and 95 % level of significance of variable coefficient of sales growth in first, second, and third model has been meaningful and it was meaningful with 99%.level of significance. Hence, the first hypothesis of this study has been proved by one of the measuring indices of leverage ratio (fourth indicator) and it has been rejected in other cases.

The results of testing fourth hypothesis

In this hypothesis, leverage ratio is a dependent variable (fourth indicator FL1-FL4) and the independent variable is benefit growth. For the signification of the coefficients t statistics was used. According to t statistics of the independent variable PGT with 95 percent level of significance for variant coefficient of benefit growth was confirmed in the first model and was not significant in the second, third, and fourth models. In other models, in level of 5%, it is not significant. In the first model, the value of benefit growth with 99% level of significance had a significant effect on leverage ratio (with the first index). This variant coefficient was also permanently positive and the effects of benefit growth were positive on leverage ratios. Thus, the first hypothesis of this study was confirmed by the first criterion of measuring leverage ratio.

The results of testing third hypothesis

In this hypothesis, dependent variable was leverage ratio (FL1-FL4) and the independent variable was the amount of property growth. According to t statistics of the independent variable AGT and 95 percent level of significance, the variant coefficient of properties growth was significant in the first, third, and fourth models and in the second model, with 95% level of significance, is not significant. In the case of this independent variable, it can be concluded that properties growth of the sample companies with 99 % level of significance had significant effects on all indices of the leverage ratio. Thus, the third hypothesis of the study has been confirmed by all measuring indices of leverage ratio.

The results of testing fourth hypothesis

In this hypothesis, leverage ratio was dependent and financial power of the company was independent variable. According to the t statistics of independent variable FST and 95% level of significance, variant coefficient of financial power was significant with 95% level of significance. But in other models, in 5% error level, it was not significant. Thus, statistically, the financial power of the company had significant negative effects on leverage ratio with third index. And the fourth hypothesis of the study have been confirmed by third indicator of measuring leverage ratio. The results of this hypothesis are interpreted in a way that by the increase in financial power of sample companies, leverage ratios (financial risks) have decreased.

CONCLUSION

in the testing of first and second hypothesis, a significant negative relationship was observed between sales growth and profit growth with the results of financial leverage ratios.

1- In other words, by increasing sales and profit growth among companies in the sample, financial leverage ratios decrease. Therefore, companies can take steps to reduce the company's financial leverage ratios by increasing sales and profit growth.

2- In testing third hypothesis, a significant positive relationship between asset growth and leverage ratios was gained.

In other words, by the growth in assets between the sample companies, the financial leverage ratios increase, too. Therefore, companies can take steps to increase the company's financial leverage ratios by increasing asset growth.

3- In testing fourth hypothesis, a significant negative relationship obtained between financial capability and financial leverage ratios.

In other words, the higher the strength and financial health of companies, the lower financial leverage ratios get. Therefore, and companies can take steps to reduce the company's financial leverage ratios by increasing the financial power and getting away from bankruptcy risk.

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