

INVESTIGATING THE EFFECT OF OPERATING FREE CASH FLOW ON THE STABILITY OF EARNINGS AND TRADE VOLUME OF COMPANIES LISTED IN TEHRAN STOCK EXCHANGE

Somayeh Rastega* and Darush Javid

Department of accounting, hamedan branch, Islamic azad university, hamedan, iran.

*Corresponding author: Somayeh Rastegar

ABSTRACT: *The main objective of this study is to determine the effect of free cash flow on the stability of earnings and trade volume of the companies listed in Tehran Stock Exchange. Study period includes 6 consecutive years from 2007 to 2012. To select the sample, simple random sampling without replacement is used. The number of member firms in the study is 200 companies, of which 114 were selected as sample. The research method is correlational and hypotheses were studied through regression testing. The results show that free cash flow is directly related to the stability of earnings. The relationship between free cash flow with trade volume and size of the company is meaningful and direct. These results suggest that free cash flow is a good predictor for the stability of earnings, trade volume, and size of the company and explains these variables well. So, according to this study, it can be recommended to investors to get help from this variable to identify companies that have stable earnings and high trade volume.*

Keywords: Stability of Earnings, Trade Volume, Operating Free Cash Flow.

INTRODUCTION

Investors are interested in buying non-profit stocks which have rich cash flow and avoid investing in sectors without free cash flow. Loan givers and creditors also pay attention to profit units of cash flow. Incoming and outgoing cash flow and availability of profit sectors to it form the foundation and basis for many of the decisions and judgments of the major groups of users of financial information of profit sectors. Exact forecasts of cash require accurate information and analysis of cash flows in the current year and previous years. It is possible to predict with less error only when accurate understanding of the past and present issue is available.

SIGNIFICANCE OF THE RESEARCH

Free cash flow is important in the sense that it allows managers to search for opportunities to increase stock value. Without having the means to develop new products, doing business jobs, paying cash dividends to shareholders and decreasing debt is impossible. On the other hand, cash should be kept at a level that it creates a balance between the cost of maintaining cash and insufficient cash cost.

Earnings stability means repeatability (continuing) current income. As earnings stability increases, it means that company has more power to maintain current earnings and it is assumed that company's earnings quality be higher. The levels of benefit accruals have reverse relationship with quality because as the rate of benefit accrual is more, the quality of the company's earnings reduces. Also, as the reported accounting earnings reflect the real economic transactions, earnings quality increases.

In this research, it is tried to know whether there is relationship between operating free cash flow and stability of earnings and trade volume of the companies listed in Tehran Stock Exchange; how the relationship is. Is it positive or negative? As free cash flow is more, stability of earnings increase, as a result, company's trade volume will be higher. As the stability of earnings is more, it means that the earnings are more stable, and investors are looking to

invest more; so, the trade volume of companies listed in Tehran Stock Exchange will increase.

LITERATURE REVIEW

argue that the proceeds from operating activities should not only be invested in new fixed assets so that the company can maintain its current level of operational activities, but also some parts of the funds should be distributed, as dividends or redemption of shares, among shareholders to attract their satisfaction. So, the cash flow from operating activities alone cannot be considered as the ability of an entity to generate cash flow. Therefore, to assess the ability of a business sector, in addition to cash flow from operating activities, free cash flow is calculated and evaluated. Also, believe that the effect of free cash flow on dividend policy during the life cycle of traditional accounting measures such as earnings per share and return on assets cannot show the performance of a business sector, but the criteria should be used along with measures such as free cash flow of the business sector. Because, while the earnings are frequently manipulated by managers of business sectors, concealing and manipulating free cash flow is very difficult.

Roudneshin [1] assessed the relevance of cash and accrual components of earnings to the market value of the company. The results showed that the cash component of accounting earnings can predict the market value of the company, but accrual components cannot predict and explain the company's market value. The results of the research done by Modarres and Abbaszadeh [2] about studying the fact that whether accuracy of earnings component can predict can lead to improved earnings forecast and explain earnings stability and relationship between earnings and cash flows showed that the

Table 1) Pearson's Test for the First Hypothesis

The relationship between free cash flow and earnings stability			
Dependent variable Independent Variables	Sustainability benefits		
	The correlation coefficient	sig	Result
Free cash flow	768/0	001/0	There is relationship

Table 2) The Coefficients of Variables

Variables	B (factor)	Standard error	Beta	t	Significance level.
Fixed amount	5.79	0.215		26.97	0.000
Free cash flow	0.517	0.018	0.768	28.57	0.00
F (probability): 816.75 (0.001)					
The coefficient of determination (R^2): 0.590					
Durbin-Watson: 2.04					
Dependent variables: Earnings stability					

Table 3: Pearson's Test for the Second Hypothesis

The relationship between free cash flow and trade volume			
Dependent variable Independent Variables	Trade volume		
	The correlation coefficient	sig	Result
Free cash flow	0.492	0.001	There is relationship

Table 4) The Coefficients of Variables

Variables	B (factor)	Standard error	Beta	t	Significant level.
Fixed amount	9.59	0.503		19.06	0.000
Free cash flow	0.571	0.042	0.492	13.57	0.000
F (probability): 181.51 (0.001)					
The coefficient of determination (R^2): 0.242					
Durbin-Watson: 1.9					
Dependent variables: Trade Volume					

Table 5) Pearson's test for the third hypothesis

The relationship between free cash flow and firm size			
Dependent variable Independent Variables	Trade volume		
	The correlation coefficient	sig	Result
Free cash flow	0.813	0.001	There is relationship

Table 6) The Coefficients of Variables

Variables	B (factor)	Standard error	Beta	t	Significant level.
Fixed amount	2.66	0.100		26.67	0.000
Free cash flow	0.280	0.008	0.813	33.29	0.000
F (probability) 1108.00 (0.001)					
The coefficient of determination (R^2): 0.661					
Durbin-Watson: 1.71					
Dependent variables: company size					

performance of earnings has positive relationship with the capability of predicting earnings components and their continuity; in other words, the earnings components which are more stable can predict earnings better.

RESEARCH HYPOTHESES

1. There is a significant and positive relationship between operating free cash flow and earnings stability.
2. There is a significant and positive relationship between operating free cash flow and trade volume of companies listed in Tehran Stock Exchange.
3. There is a significant linear relationship between operating free cash flow and firm size.

THE POPULATION AND SAMPLE

In the present study, to test hypotheses and, classified and audited financial data of manufacturing companies listed in Tehran Stock Exchange is used. To select the proper sample, random sampling without replacement is used, and the adequacy of the sample size was investigated using the Cochran's equation. Thus, regarding conditions and considerations on sampling, 114 companies were selected for the tests. Study period includes 6 consecutive years from 2007 to 2012.

METHODS OF DATA ANALYSIS:

After gathering the information necessary for firms listed in Tehran stock exchange, research hypotheses have been analyzed using appropriate methods. Linear correlation analysis and simple and multiple linear regression were used to determine the assumptions. To explain the model, scatterplot diagram, for the existence of a linear relationship, linear diagram were used.

THE RESULTS OF TESTING HYPOTHESES

First hypothesis: There is a significant relationship between free cash flow and earnings stability.

Correlation is seen in Table 1. The correlation coefficient obtained is 0.768, which indicates a direct correlation between the independent variable and dependent variable; in Table 2, the amount of Durbin-Watson obtained is 2.04, and because it is in the range from 1.5 and 2.5, so, the assumption of independence of errors is accepted. And the coefficient of determination obtained is 0.590; thus 59 % of the variation in the dependent variable is due to the changes in the independent variable. Also, in this table, it can be seen that the significant level of Fisher test was less than 1 %; therefore, there is a linear relationship between two variables.

The above table shows that the significance level of t-test for the free cash flow variable is less than 1 %; so, the regression equation is designed so that, as it can be seen from the above table, through a single change in the free cash flow variable to 0.517 units, it can increase the stability of earnings. Therefore, H₀ hypothesis is rejected and H₁ is accepted; so, in 99 percent confidence level, it can be said that there is a significant relationship between free cash flow and earnings stability.

THE SECOND HYPOTHESIS: THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN FREE CASH FLOW AND TRADE VOLUME

Correlation is seen in Table 3. The correlation coefficient obtained is 0.492, which indicates a direct correlation between the independent variable and dependent variable; the coefficient of determination obtained is 0.242; thus 24 % of the variation in the dependent variable is due to the changes in the independent variable. Also, in this table, it can be seen that the significant level of Fisher test was less than 1 %; therefore, there is a linear relationship between two variables. The above table shows that the significance level of t-test for the free cash flow variable is less than 1 %; so, the regression equation is designed so that, as it can be seen from the above table, through a single change in the free cash flow variable to 0.71 units, it can increase the trade volume.

THE THIRD HYPOTHESIS: THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN THE FREE CASH FLOW AND FIRM SIZE.

Correlation is seen in Table 5. The correlation coefficient obtained is 0.813, which indicates a direct correlation between the independent variable and dependent variable; the coefficient of determination obtained is 0.661; thus 66 % of the variation in the dependent variable is due to the

changes in the independent variable. Also, in this table, it can be seen that the significant level of Fisher test was less than 1 %; therefore, there is a linear relationship between two variables.

The above table shows that the significance level of t-test for the free cash flow variable is less than 1 %; so, the regression equation is designed so that, as it can be seen from the above table, through a single change in the free cash flow variable to 0.280 units, it can increase the firm size.

SUMMARY AND INTERPRETATION OF RESULTS

Three hypotheses were tested in this study, and the results showed their acceptance. The results of this study show that free cash flow is directly related to the stability of earnings. There is significant and direct relationship between company's free cash flow and trade volume and firm size. These results suggest that free cash flow has a good predicting ability for earnings stability variables, trade volume, and size of the company, and explains these variables well. So, according to this study, it can be recommended to investors to get help from this variable to identify companies that have high earnings stability and high trade volume.

PRACTICAL SUGGESTIONS

1. The directors of profited sectors are recommended to take steps towards enhancing the quality of accruals and its components and try to make these items closer to reality.
2. It is recommended that users of financial information try to consider different importance for various components of accruals while applying the accruals for estimating future earnings.
3. It is recommended that users of financial information pay close attention to investment approaches and ways of financing in evaluating the companies and try to explain the role of these decisions in future profitability of companies.
4. The manager profited sectors are suggested, along with paying attention to enhancing the quality of accruals, to try to improve capital market information about the performance and future financial status of the company through disclosing the exact figures.

SUGGESTIONS FOR FUTURE RESEARCH

1. Investigating the relationship between Stability of accruals with quality of financial reporting of companies listed in Tehran Stock Exchange.
2. Investigating the relationship between cash flows Stability with quality of financial reporting of companies listed in Tehran Stock Exchange
3. Investigating the relationship between Stability of accruals with predicted figures by the managers of the companies listed in Tehran Stock Exchange.

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