

## The Effect of Managerial Stock on the Relationship between Free Cash Flow and Earnings Management of Listed Companies in Tehran Stock Exchange

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**Abstract:** The present study examines the relationship between stock management and free cash flow and manage the data needed for this research pays dividends Bundles result of new market site were collected. Between the years 2008 to 2012 are examples of the companies fulfill the information provided so long as the scope of research in this area. The population survey of all the companies listed on the stock exchange is realized through systematic removal of 105 companies chosen for the sample size. In order to analysis the data, the univariate and multivariate regression analysis were used. The results showed that: there is no relationship between stock management and free cash flow, there is no relationship between earnings management and stock management, there is a relationship between free cash flow and earnings management and the there is no relationship between managerial stock free cash flow and management of negative earnings (loss).

**Keywords:** Stock management, free cash flow, earnings management

### 1. Introduction

According to the theory of conflict of interests between managers and owners, some managers may be forced free cash flows in projects with negative net present value investments in short to provide some of your personal interests although my grass and Hart recognizes the conflicting interests warranties and liabilities have defined roles, but Jensen has proposed the idea to the public and the debts and obligations of choice for this type of agency costs, because the bond coupon payments will reduce cash available to managers (Grossman and Hart, 1982, 17). Jensen's free cash flows related costs as expenses in projects with negative net present value of the investment. The Jensen, Director Business Unit with large free cash flows and low growth, earnings management are to profits less losses arising from investments in such projects destroyed and short-term self-interest to provide (Jensen, 1986, p 330). The main objectives of this chapter, the accounting and reporting for accounting, financial reporting needs of users of financial reports and discussions began then to free cash flow and earnings management theory

is finally, the chapters on issues of corporate governance and managerial stock ownership (as a branch of corporate governance mechanisms) to end

### Calculation of Free Cash Flow

Jaggi & Gul and Free Cash Flow is calculated based on a model that is very difficult Jensen because it cannot be fast all projects with positive net present value of expected units to identify business. In addition to the usually reliable for the determination of cost of capital is available. Hence, we have tried to model other kind of alternative models of Jensen's model, to calculate free cash flows of the business unit these models can be used to model the most important Lehn, and Poulsen (1989), and the Copeland cited. Lehn and Poulsen Free cash flow for the company's operating profit before depreciation expense paid after deduction of taxes, interest expense, interest income shareholders and ordinary shareholders. Copeland also defines free cash flow provides the following: "Free cash flow is defined as operating profit after taxes plus business units after deducting non-cash cost of investment

(increase in change) in working capital, property, machinery, equipment and other assets.

### Materials and Methods

Firstly, data variables through the New Deal Bundle exchange sites were collected and initial processing excel files and variables were calculated. The study used data through software variables were analyzed with descriptive data were initially the relationship established between them and the present research is descriptive and correlational. This study investigated the relationship between the variables of the cross-correlation. Since the only source of reliable financial data collected, the current state of Iran, Tehran Stock Exchange. The companies listed in Tehran Stock Exchange is considered as the target population. Sampling the end of its fiscal year ending in March of each year enhance comparability. A typical enterprise investment companies, holding, Banks and Financial Intermediation Activities are different because of the name of other industries. Stop trading companies in the sample maximum of 3 months. Company information is available for the full sample over the course of research the limits of the 547 companies, 105 companies were selected. Scope of the study is from 1999 to 2012, ie from March 2008 until the end of the Persian date 2012

### Methods of data collection

Data collection was conducted library and field methods the first section includes literature and define and identify the independent and dependent variables and discuss the impact of using financial theories scientists the second part of the field that the information required by the Stock Exchange of data collection software was New Deal and for data analysis and mining spss statistical software was used.

Hypotheses:

There is a relationship between the managerial equity and free cash flow

There is a relationship between the managerial equity and earnings management

There is a relationship between the free cash flow and earnings management

Between managerial stocks on the relationship between free cash flow and reduce the impact of earnings management

### Analysis and hypothesis testing

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Table 1: Description of central and dispersion parameters research variable data

	Free Cash Flow	Earnings Management	The amount of shares owned by management The amount of shares owned by management
Number	525	525	525
Average	452090	-803740	7.36
Middle	43731	-4925	000
SD	2442530	1145240	19.38
Skewness	10.39	0.475	9.82
Elongation	129.22	64.98	7.37
Domain	38400000	232000	95.1
Minimum	-7900000	-9920000	0.00
Maximum	7600000	13300000	95.1

First hypothesis: There is a relationship between the managerial equity and free cash flow

Table 2: Summary of regression

correlation coefficient	Coefficient of determination	Standard Coefficient	Estimation error	camera - Watson
0.055	0.003	0.001	7.92	1.98

To influence the independent variable on the dependent variable requires that there be a correlation between two variables the correlations developed in this thesis (0.055) level is very low and is not reliable. Coefficient to determine the accuracy of the model to predict the dependent variable measures therefore, the amount of which will go to the first show of accuracy in predicting the dependent variable is the amount (0.003) is zero so we can say that the model is explained by the independent variables in other words, the independent variable (stock management) ability to predict the dependent variable (free cash flow) does not on the other hand, one needs

independent regression errors of each variable if these errors are not independent from each other so that the regression results are not reliable it is used to identify the most important test of Watson camera. So if the camera is between 5.1

to 5.2 is obtained Watson independent of the error can be sure that 1.98 is calculated on the assumption this suggests that the errors are not dependent variables.

Table 3: Fisher test for the presence or absence of significant linear correlation or model

sum of squares	Degrees of freedom	Mean-square	f	Error (sig)
98.79	1	98.79	1.57	0.210
32811	523	62.73		
32910	524			

To express the linear relationship between two variables regression should be made independent and dependent, i.e. the model should be significant, the presence or absence of significant linear relationship with the Fisher test

(f) is possible (Fisher test is essentially one of comparative tests used to compare more than two groups) that the error is in the assumption 0.210 since the calculated value is greater than 5% error This means that the linear relationship between the variables is created.

Table 4: Regression Coefficients

Dependent Variable: Free Cash Flow	Non-standardized coefficients		t	Error (sig)
Independent variables	B	Error	Beta	
(Constant)	8.8	0.380	23.17	0.000
Independent variables: stock management	-0.269	0.214	0.055	-1.25 0.210

After checking the prerequisites are to be seen whether the independent variable on the dependent variable regression effect if the effect of this influence. To evaluate the effect of independent variables on the dependent variable using t-test is used so that if the t-test significance level of less than 5 percent, i.e., the independent variable on the dependent variable impact however, if more than 5% significance level, this means the independent variable can affect the dependent variable. This hypothesis can be seen the significance level of t-test for stock management is indicating 0.210 estimated error rate exceeds 5 percent as a result it can be

said free cash flow is not a team that shares a relationship so the hypothesis is rejected. Second hypothesis: There is a relationship between the managerial equity and earnings management

Table 5: Summary of regression

correlation coefficient	Coefficient of determination	Standard Coefficient	Estimation error	camera - Watson
0.031	0.001	0.000	11.13	1.87

To influence the independent variable on the dependent variable requires that there be a correlation between two variables the correlations developed in this thesis (0.031) level is very low and is not reliable. Coefficient to determine the accuracy of the model to predict the dependent variable measures therefore, the amount of which will go to the first show of accuracy in predicting the dependent variable is the amount (0.001) is zero. So we can say that the model is explained by the independent variable, i.e. the independent

variable (stock management) ability to predict the dependent variable (earnings management) does not on the other hand, one needs independent regression errors of each variable if these errors are not independent from each other so that the regression results are not reliable, so it's important to identify Watson test camera used. So if the value is between 5.1 to 5.2 is obtained Watson cameras can be assured of the independence of the error 1.87 value is calculated on the assumption that the errors indicate variables not belong.

Table 6: Fisher test for the presence or absence of significant linear correlation or model

sum of squares	Degrees of freedom	Mean-square	f	Error (sig)
63.58	1	63.58	0.512	0.474
64895	523	124.08		
64959	524			

To express the linear relationship between two variables regression should be made independent and dependent models should be significant in other words, that the presence or absence of significant linear relationship with the Fisher test (f) is possible (Fisher test was originally a

comparative analysis is used to compare more than two groups) that the error is in the assumption 0.474 since the calculated value is greater than 5% error so this means that the linear relationship between the variables is created.

Table 7: Regression Coefficients

Dependent Variable: Free Cash Flow	Non-standardized coefficients		t	Error (sig)
Independent variables	B	Error	Beta	
Independent variables (Constant)	-221	0.534		-2.82 0.023
Independent variables: stock	-0.216	0.301	-0.031	-0.716 0.474

After checking the prerequisites are to be seen whether the independent variable on the dependent variable regression effect if the effect of this influence. To evaluate the effect of independent variables on the dependent variable

using t-tests used so that if the t-test significance level of less than 5%, the impact of the independent variable on the dependent variable, but if it exceeds the 5% significance level this

means that the independent variable can affect the dependent variable.

This hypothesis can be seen that a significant level of t-test for managerial stock is equal to 0.474 this shows that the error rate is calculated over 5% in conclusion we can say that stock

management is unable to communicate with the earnings management hypothesis is therefore rejected.

Third hypothesis: There is a relationship between the free cash flow and earnings management

Table 8: Summary of regression

correlation coefficient	Coefficient of determination	Standard Coefficient	Estimation error	camera - Watson
0.106	0.011	0.009	7.88	1.95

To influence the independent variable on the dependent variable requires that there be a correlation between two variables the correlations developed in this thesis (0.106) is low; and is somewhat reliable. Coefficient to determine the accuracy of the model to predict the dependent variable measures therefore, the amount of which will go to the first show of accuracy in predicting the dependent variable this amount (0.011) is down about 1.1 percent, but the model is explained by the independent variable, i.e. the independent variable (earnings management) ability to predict the dependent

variable (free cash flow) is the other one needs independent regression errors of the other variables if these errors are not independent from each other so that the regression results are not reliable in order to identify the most important test of the camera - Watson used. So if the camera is between 5.1 to 5.2 is obtained Watson independent of the error can be sure that 1.95 is calculated on the assumption this suggests that the errors are not dependent variables.

Table 9: Fisher test for the presence or absence of significant linear correlation or model

sum of squares	Degrees of freedom	Mean-square	f	Error (sig)
372	1	372	5.98	0.015
352638	523	62.21		
32910	524			

To express the linear relationship between two variables regression should be made independent and dependent, i.e. the model should be significant, the presence or absence of significant linear relationship with the Fisher test (f) possible (Fisher's test of the comparative tests are used to compare more than two groups) the

error in this assumption is that 0.015 since the calculated error is less than 5%, so this means that the linear relationship between the variables is established.

Table 10: Regression Coefficients

Dependent Variable: Free Cash Flow	Non-standardized coefficients	Error	coefficients	t	Error (sig)
Independent variables	B	Error	Beta		
Independent variables (Constant)	8.5	0.347		24.5	0.000
Independent variables: stock management	-0.076	0.031	-0.106	-2.44	0.015

After checking the prerequisites are to be seen whether the independent variable on the dependent variable regression effect if the effect of this influence. To evaluate the effect of independent variables on the dependent variable using t-tests used so that if the t-test significance level of less than 5%, the impact of the independent variable on the dependent variable, but if it exceeds the 5% significance level is this means that the independent variable can affect the dependent variable. This hypothesis can be

seen that a significant level of t-test for earnings management is indicating 0.015 estimated error rate of less than 5% in conclusion it can be said that earnings management could interact with free cash flow, and thus the hypothesis is confirmed.

Fourth hypothesis: Between managerial stocks on the relationship between free cash flow and reduce the impact of earnings management

Table 11: Summary of Regression Model

correlation coefficient	Coefficient of determination	Standard Coefficient	Estimation error	camera - Watson
0.121	0.015	0.011	7.88	1.96

To influence the independent variables on the dependent variable requires that there be a correlation between two variables the correlations developed in this thesis (0.121) is low and is somewhat reliable. Coefficient to determine the accuracy of the model to predict the dependent variable measures therefore, the amount of which will go to the first show of accuracy in predicting the dependent variable is the amount (0.015) is low however, about 5.1% of the model is explained by the independent variables in terms of independent variables (stock dividends and management team) the

ability to predict the dependent variable (free cash flow) on the other hand, one needs independent regression errors of each variable if these errors are not independent from each other so that the regression results are not reliable it is used to identify the most important test of Watson camera. So if the camera is between 5.1 to 5.2 is obtained Watson independent of the error can be sure that 1.96 is calculated on the assumption this suggests that the errors are not dependent variables.

Table 12: Fisher test for the presence or absence of significant linear correlation or model

sum of squares	Degrees of freedom	Mean-square	f	Error (sig)
483.78	2	241	3.89	0.021
32426	522	62.12		
32910	521			

To express the linear relationship between two variables regression should be made independent and dependent, i.e. the model should be significant, the presence or absence of significant linear relationship with the Fisher test (f) possible (Fisher's test of the comparative tests are used to compare more than two groups) the error rate is calculated on the assumption 0.021 and the error rate is less than 5% so this means

that the linear relationship between the variables is established.

Table 13: Regression Coefficients

Dependent Variable: Free Cash Flow	Non-standardized coefficients		coefficients	t	Error (sig)
Independent variables	B	Error	Beta		
Independent variables (Constant)	8.7	.0380		22.92	0.000
Independent variables: stock management	-0.077	0.031	-0.108	-2.48	0.013
	-0.28	0.213	-0.058	-1.33	0.181

In the above table it is evident that the effect of earnings management on the free cash flow is equal to the unit 0.108 in the third hypothesis, the effect of earnings management on the free cash flow equal to 0.106 thus we see that the interference of equity free cash flow to manage the impact of earnings management on 0.108 and involves no administrative shares is equal to the unit 0.106 in conclusion we can say that a significant effect on the relationship between earnings management and stock management does not have free cash flow as a result of this assumption cannot be verified.

Conclusion:

#### **The result of first hypothesis**

To test the hypothesis there is a relationship between stock management and free cash flow. Univariate regression analysis is used; it is shown that the correlation between two variables, the value creation 0.055 this amount is far too low and cannot be based on the correlation between two variables, the correlation is between 1 and 1. And when we see that there is zero correlation, the correlation is zero created also seen on the assumption that the null model is explained (0.001) so we can say that the model is explained by the independent variable lateral sense. Fisher test error rate of more than 5% (0.210), the linear relationship between two variables, namely the accuracy of the model has not been confirmed yet. The error rate of 5% is calculated for the t-test therefore, stocks management and the ability to enter the equation, it does not constitute in conclusion we can say that there is no relationship between

stock management and free cash flow, then the hypothesis is rejected.

#### **The result of second hypothesis**

To test the hypothesis there is relationship between earnings management and stock management. Univariate regression analysis was used, it was observed that the amount of correlation between two variables 0.031 created this value is very low at it cannot be based on the correlation between two variables is the correlation coefficient between -1 and 1. And when we see that there is zero correlation, the correlation is zero created also seen on the assumption that the null model is explained (0.001) so we can say that the model is explained by the independent variables. On the other hand Fisher test error rate of more than 5% (0.474), the linear relationship between two variables, namely the accuracy of the model has not been confirmed yet. The error rate of 5% is calculated for the t-test therefore, stocks management and the ability to enter the equation, it does not constitute in conclusion we can say that there is no relationship between earnings management and stock management, then the hypothesis is rejected.

#### **The result of third hypothesis**

To test this hypothesis, which says that the free cash flow and earnings management are related? Univariate regression analysis was used, Watson's view that the camera is obtained from 1.95 this error indicates that the two variables are independent of the amount of correlation between two variables 0.106 also established that the value is in the acceptable range it can be based on the correlation between two variables

is the correlation coefficient between -1 and 1. And when there is zero correlation means and created much more of zero correlation is also seen in the hypothesis the explanation is that the null model (0.011) so we can say that the model is explained by the independent variables, however, the amount is about 1.1%. On the other hand, Fisher's test error rate of less than 5% (0.015), the linear relationship between two variables is established, and i.e. the model accuracy is verified. The error rate is calculated for the t-test is less than 5% therefore, earnings management capabilities into the equation and it is formed in conclusion we can say that the free cash flow and earnings management there so this hypothesis is confirmed.

#### **The result of fourth hypothesis**

to test the hypothesis that the effect of managerial stock on the relationship between free cash flow and manage negative profit (loss) is the bivariate regression is used, the impact of earnings management on the involvement of free cash flow to equity management is 0.108 but without the involvement of management shares this value is equal to the observed 0.106 the stock management of the relationship between two variables impact free cash flow and earnings management is therefore not confirmed this hypothesis.

#### **Suggestions:**

In this study, the stock management and free cash flow and earnings management did not establish a significant relationship it is therefore suggested beneficiary for released identifiable cash flow and earnings management, the amount of stock-based management for their decision not to predict the amount of free cash flow, earnings management can base their decisions.

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