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The Investigation Effect of Value of Financial Flexibility on Dividend Policy, Financial Leverage and Level of Cash Holdings

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Abstract: Financial flexibility the ability of a firm to respond effectively to the opportunities for non-influx of cash and investment shows. Although, measurement of financial flexibility due to its invisibility is difficult but to measure various parameters such as a leverage ratio, mode of financing and the cost of external borrowing used, in this study to the investigation of effect financial flexibility on dividend policy, financial leverage and level of cash holdings are discussed. Spatial domain research firms listed in the Tehran Stock Exchange after the procedure systematic elimination, a total of 100 companies were selected as sample of this research as well as research time territory, between the years 2008-2013. In this study for data analysis of multiple regression models and combined data and EViews Software used, the findings show that the financial flexibility with pay interest and financial leverage negatively and positively correlated with the level of cash holdings.

Key words: Financial flexibility, dividend policy, financial leverage, cash holdings, pay

INTRODUCTION

Distribution of profits of the oldest and most common way of transmission is returns to shareholders. Corporate management should be the maintenance or distribute all or part of the dividend decision. The reason for financial managers to determine the most appropriate dividend policy and factors that may affect the determination of the policy is the most important. There are many factors that may affect dividend policy that the value of financial flexibility is one of the factors. The value of financial flexibility on the company's capacity in the use of investment opportunities and therefore, affect dividends, the value of financial flexibility under the influence other financial decisions such as the level of financial leverage company and level of cash holdings. When the company has the flexibility to implement the capital projects it is better to implement investment projects of domestic resources (holdings) is sufficient. On the other hand, if local resources are not adequate investment projects, enterprises should look for low-cost external financing. The external financing cheap and convenient with lower levels of financial leverage (financial risk) is possible.

A REVIEW OF THE LITERATURE AND RESEARCH BACKGROUND

For the purposes these financial flexibility from the perspective of theoretical concepts of accounting standards Iran, the entity's ability to act effectively to changes in cash flows, so that the entity can be liable, events and unexpected opportunities react. Different researchers have different methods to measure financial flexibility, use or proposed, for example, the ratio of short-term debt and long-term debt and liquidity, leverage ratio (debt to assets) and liquidity ratio (cash to the assets).

Leverage means the percentage change in the dependent variable to the percentage change in the relevant independent variables is (Blazenko, 1999). For calculation of financial leverage, percentage changes in earnings per share on the percentage change in earnings before interest and taxes divided, earnings before interest and taxes independent variable and the dependent variable is earnings per share financial leverage, hoping to increase the efficiency of ordinary shares used.

Dividend policy to pay part of the company policy that defines the company's dividend. In general, the relationship between dividends and earnings per share reflects the company's dividend policy. Cash Holdings (CH): the natural logarithm of the ratio of cash and short-term investments to total assets excluding cash and short-term investments (Opler *et al*., 1999).

Rapp in a study as of the value of financial flexibility and financial policies to the investigation of effect financial flexibility on dividend policy, financial leverage and cash holdings have. Their findings show that firms have more flexibility, less dividends and financial leverage and prefer to hold more cash.

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Drobetz *et al*. (2010) to review the value of cash holdings of firms in relation to the specific characteristics and asymmetry companies, using a sample of 48,240 year companies from 45 countries in the period 1995-2005 began. This study was to test two hypotheses cross. According to the hierarchy of finance, information asymmetry, external financing is difficult and costly for the company in this case for the market extra cash is more valuable. In contrast, free cash flow theory predicts that keeping extra cash along with information asymmetry, moral hazard and thus to reduce the cash value in the market. Using regression Fama and French, the results of this study confirmed the hypothesis based on the theory of free cash flow but the results are generally consistent with the theory of the hierarchy of finance not these findings suggest that the company should borrow from its own resources to use but also indicative of the fact that it is possible to accumulate the cash to avoid external financing in the future and when high information asymmetry is not optimal. These findings suggest that the company should borrow from its own resources to use but also indicative of the fact that it is possible to accumulate the cash to avoid external financing in the future and when high information asymmetry is not optimal. These findings suggest this is not that the company should not from its own resources before the debt use but also indicative of the fact that it is possible to accumulate the cash to avoid external financing in the future and when high information asymmetry is not optimal.

Arsalan in their study titled "Why and How Companies to Review the Flexibility" to review the 1000, during the 1994 and 1996 paid. They issue financial flexibility, using the example of companies in the five countries of East Asia (Hong Kong, Indonesia, Malaysia, South Korea, Thailand) during the East Asian financial crisis and before it was evaluated. The main objective of this study was to evaluate the effect of financial flexibility on investment and the company's performance. The results show that firms with low leverage and high cash flow before period financial crisis use. In addition, firms with less financial flexibility, rely on internal resources and their performance during the financial crisis better.

Blau and Fuller (2008) in his study entitled "The Financial Flexibility and Dividends" to investigate the relationship between flexibility and dividends paid. The findings of this study show that payment of dividends with stock price negatively and investors when the stock price is lower, less value to dividends are and when the investment risk is increased, the less the dividend payment. The results also suggest that there is a direct correlation between stock prices and risk and companies with low debt and high cash dividends are lower than companies with high debt ratios and liquidity are low paid.

METHODOLOGY AND HYPOTHESES RESEARCH

The results of this study can be used by investors and other groups is in terms of purpose applied and because the study deals the relationships between variables with using regression analysis. In terms of the nature of the cross-correlation, in this study, descriptive and inferential statistical methods will be used. Descriptive statistics including describe the statistical properties of the variables and how they are symmetrical. Inferential statistics including regression analysis will be. Regression type used in the research will be panel data regression. The target population included all companies listed in Tehran Stock Exchange is the data these companies for the period beginning in 2008 until the end of 2013 were studied. In this study, a sample of filtering or screening method is used. At the end of 2013 a total of 423 companies are members of the stock exchange that finally, after applying filters, 100 companies remain to test. To the significance of the regression model and the coefficient of Fisher F-test, t-test is used. Due to a combination of data from F-test Limer to select the method of panel data and compilation and if necessary of the Hausman test, the choice between fixed and random effects methods will be used. As well as to analyze the hypothesis of improved coefficient of determination (R^2) is used.

First hypothesis: The value of financial flexibility on the amount of interest payments has a significant and negative effect.

The second hypothesis: The value of financial flexibility on financial leverage has a significant and negative effect.

The third hypothesis: The value of financial flexibility on the company's cash holdings has a significant and negative effect.

First hypothesis: The value of financial flexibility on the amount of interest payments has a significant and negative effect. To test the first hypothesis of the logistic regression model is used (Table 1).

The p-value obtained for the likelihood ratio statistic which significantly the model shows is zero ($p \leq 0.05$), suppose H_0 is rejected and this shows that the regression equation is generally significant.

Table 1: Result of the data analysis to test first hypothesis

Variables	Coefficients	SD	Z-statistic	p-values
C	1.183	3.125	0.379	0.705
RE	7.847	2.210	3.550	0.000
TE	-23.613	31.400	-0.752	0.452
ROA	-0.153	0.049	-3.134	0.002
SGR	-0.267	0.591	-0.452	0.652
SIZE	-0.415	0.495	-0.837	0.402
CASH	22.241	16.911	1.315	0.189
VOFF	-11.919	3.521	-3.385	0.001

Statistics Likelihood Ratio (LR) = 26.800; Pseudo R^2 = 0.340; Prob. (LR-statistic) = 0.00

Table 2: Test Hasmr-Lmshv

p-value	H-L-statistic
0.87	3.9

Table 3: Check the accuracy of model predictions

Parameters	Percent accuracy of forecast
Non-payment of interest	63.6
Interest payments	70.5
Total	68.4

According to Table 1 and p-value of Z-statistics for Variable Financial Flexibility (VOFF) is equal to 0.001 and the level of error 0.05 is less. The null hypothesis (no correlation between the value of financial flexibility and the amount of interest payments) is rejected and the result is between the value of financial flexibility and the amount of interest paid, there is a significant relationship. Also, due to the variable coefficient value financial flexibility is negative, resulting between the value financial flexibility and the amount of interest payments there is an inverse relationship and the value of financial flexibility reduce the amount of interest payments.The result is an accepted first hypothesis.

The coefficient of determination R^2 Pseudo which is the normal regression model is 34% which shows that 34% of changes in the dependent variable explained by the independent variables.

To test the logistic regression of test used Hasmr-Lmshv. The null hypothesis in this case is a goodness of fit of the model. The following table shows statistics Hasmr-Lmshv for this model. According to the p-value of which is equal to 87% and higher-than-fault 0.05, the null hypothesis is accepted, the resulting model is well fitted.

Table 2 shows the accuracy of predictive logistic model fitted to the data. According to the table, the accuracy of predicted logistic model for companies that have not paid dividends equal to 63.6 and to companies that have interest payment is equal to 70.5 which shows model 63.6% of companies that do not pay dividends and 70.5% of companies that pay dividends have been properly set (Table 3).

The second hypothesis: The value of financial flexibility on financial leverage has a significant and negative effect.

Given that the data used in this study combined (Year-company) are and the combined data, in the form, sign and compilation is therefore to choose between using panel data and compilation of model of test F-Limer used. F-Limer to check the results, if the probability of F statistics is higher than 0.05, of data compilation methods must be used. Otherwise of the method used panel data. F-Limer test summary results, provided in Table 4. As can be seen, the p = 0 and is <0.05, the resulting panel data methods accepted. If accepted, the panel data method, then it should Hausman test, to select the method used random-effects or fixed. To check the results of Hausman test, if possible, χ^2>0.05, must use the method of random effects. Otherwise, the fixed effects model is used. Given the amount of p-value, Hausman test in Table 4, against 0.71 and >0.05. As a result of random effects model will be accepted.

To test the autocorrelation between residuals, the Durbin-Watson test is used. Durbin-Watson statistic is limited to a range of 4≥DW≥0.

If the value statistics is zero, positive perfect correlation and if 4 is the perfect negative correlation between the waste there If this amount is approximately 2, there is not a correlation, in this study, the test to determine the presence or absence of autocorrelation is used and if there is a correlation, by the AR or using Generalized Least Squares (GLS) is solved. The results for the regression model in Table 5.

According to the Durbin-Watson statistic is equal to 1.59, it became clear that the model has not autocorrelation.

One of the hypothesis basic of an appropriate regression model, the assumption of homogeneity (sameness) is the residual variance. To investigate this hypothesis in this study of (White Test) used. The null hypothesis in this test, the residual variance heterogeneity is, that if the p>0.05, the null hypothesis is accepted. The results for the regression model are shown in Table 6.

According to the p-value obtained for the test (White) is equal to 0.32 and the significant level of 0.05 more (p≥0.05), the null hypothesis (there is consistency variance) is accepted indicating that the problem Heterogeneity of variance remained there is not.

Before estimating the regression on the data, it is necessary stationary of individual variables because if the variables are non-stationary, causing regression problem

Table 4: Limer F-test results and test Hausman

	Limer F-test			Test Hausman		
Model	F-Limer statistics	Possibility	Result	Chi-square statistics	Possibility	Result
2	4.0	0.00	Panel	3.8	0.71	Random effects

Table 5: Durbin Watson statistic

About their lack of solidarity	DW- statistic
1.5<DW<2.5	1.59

Table 6: Check the consistency of variance model

The statistics	p-value
F-statistic (1.11)	0.32

is false. In this study to investigate stationary variable data combinations, Fisher-ADF test is used. The null hypothesis in this test unit root or an equivalent variable is non-stationary that if the $p<0.05$, the null hypothesis is rejected and variables are stationary. The results are presented in Table 7 for variables.

According to Table 7, the p-value, ADF F-Fischer test for all variables is <0.05, ($p \leq 0.05$), thus rejecting the null hypothesis and variables, static (stationary) are. The results of the analysis of the data in Table 8 is reflected.

According to the p-value obtained for the statistic F, which is equal to zero, ($p \leq 0.05$), H_0 is rejected and this shows that all the regression coefficients are not zero at the same time. So, between all the independent variables with the dependent variable at the same time there is a significant relationship.

According to Table 8 and the p-value, a z-statistic for Variable value Financial Flexibility (VOFF) is equal to 0.000 and the level of error less 0.05. The null hypothesis (no correlation between the value of financial flexibility and leverage) passes and will result in the value of financial flexibility and leverage significant relationship exists. Also, considering that the negative financial leverage ratio is variable, resulting in the value of financial flexibility and leveraged inverse relationship exists and the value of financial flexibility, reduce financial leverage. As a result, the second hypothesis is accepted.

Adjusted R^2 value model is equal to 0.59 which shows a 59% change in the dependent variable explained by the independent variables in other words 59% of the dependent variable, the independent variables.

The third hypothesis: The value of financial flexibility on the company's cash holdings has a significant and negative effect.

Before fitting the model to test the hypothesis, the method (Fusion Method or a panel) and assumptions of the classical regression review.

Summary of results F-Limer test, provided in Table 9 as can be seen, the $p = 0$ and <0.05 and that a panel data methods accepted. Given the amount of p-value, Hausman test in Table 9 to 0.88 and >0.05 then the random effects model will be accepted. The results for the regression model are shown in Table 10.

According to the Durbin-Watson statistic is equal to 06/2, it became clear that the model has not autocorrelation.

The results for the regression model are shown in Table 11. According to the p-value obtained for the test (White) is equal to 0.22 and the significant level of 0.05 more ($p \geq 0.05$), the null hypothesis (there is consistency variance) is accepted indicating that the problem Heterogeneity of variance remained there is not.

The results of the data analysis are reflected in Table 12. According to the p-value obtained for the statistic F which is equal to zero, ($p \leq 0.05$), H_0 is rejected and this shows that all the regression coefficients are not zero at the same time. So between all the independent variables with the dependent variable at the same time there is a significant relationship.

According to Table 12 and the p-value, a z-statistic for Variable value Financial Flexibility (VOFF) is equal to 0.000 and the level of error less 0.05, The null hypothesis (no correlation between the value of financial flexibility and cash holdings) passes and will result in the value of financial flexibility and cash holdings significant relationship exists.

Also according to the variable rate cash holdings is positive, the result is the value of between financial flexibility and cash holdings there is a positive relationship and financial flexibility increased cash holdings. As a result, the second hypothesis is accepted.

Adjusted R^2-Value Model is equal to 0.58 which shows a 58% change in the dependent variable explained by the independent variables in other words 58% of the dependent variable, the independent variables.

Table 7: The results of stationary variables model

	Variables							
The statistics	LT	VOFF	IND	Q	TANG	ROA	SIZE	CASH
ADF-Fisher Chi-square	268.8	342.4	328.7	250.2	309.3	290.3	303.8	302.4
p-value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 8: Results of the analysis data to test the second hypothesis

Variables	Coefficients	SD	Z-statistic	p-values
C	1.1320	0.2320	4.871	0.000
VOFF	-0.4500	0.0390	-11.529	0.000
IND	-0.0050	0.0020	-2.816	0.005
TOBINQ	1.0000	0.0004	2321.412	0.000
TANG	-0.0720	0.0490	-1.461	0.145
ROA	-0.0002	0.0002	-1.146	0.252
SIZE	0.0720	0.0640	1.127	0.260

R^2 = 0.6000; F-statistic = 43.500; Adjusted R^2 = 0.5900; Prob. (F-statistic) = 0.000

Table 9: F-Limer test and test Hausman

	Limer F-test			Test hausman		
Model	F-Limer statistics	Possibility	Result	Chi-square statistics	Possibility	Result
3	4.9	0.00	Panel	4.4	0.88	Random effects

Table 10: Durbin Watson statistic

About their lack of solidarity	DW-statistic
1.5<DW<2.5	2.06

Table 11: Check the consistency of variance model

The statistics	p-value
F-statistic (0.99)	0.22

Table 12: Results of the analysis data to test the third hypothesis

Variables	Coefficients	SD	Z-statistic	p-values
C	0.030	0.007	4.066	0.000
VOFF	0.519	0.030	17.303	0.000
WC	-0.020	0.003	-7.333	0.000
TOBINQ	-0.002	0.004	-0.373	0.710
CAPEX	0.426	0.411	1.037	0.301
ROA	0.043	0.016	2.647	0.009
SIZE	-0.093	0.095	-0.975	0.330
RE	-0.003	0.009	-0.376	0.707
IND	-0.001	0.001	-1.258	0.209
PAY	-0.012	0.004	-2.831	0.005

R^2 = 0.590; F-statistic = 26.90; Adjusted R^2 = 0.580; Prob. (F-statistic) = 0.00

CONCLUSION

The results of the first hypothesis, according to the analysis results the first hypothesis was accepted and represents the relationship between the amount financial flexibility, less profit. The results and findings of this hypothesis is consistent with the idea that when a company has investment opportunities and the flexibility necessary to implement these investment opportunities are better for the early financing from domestic sources, less income divide and cash rather than distributed to the shareholders to implement the project profitable. This hypothesis is consistent with the results of research, (Hashemi and Akhlaghi, 2010) is and incompatible with the researcher-results.

The second hypothesis test results, according to the analysis results, the second hypothesis was accepted as indicating a negative relationship value financial flexibility with leverage which means that companies with high-value financial flexibility, low financial leverage. This hypothesis is consistent with the results of the researcher.

The third hypothesis test results according to the results of the analysis, third hypothesis was accepted and reflects the positive relationship between the value financial flexibility with cash holdings which means that companies with high-value financial flexibility, greater cash holdings. The results and findings this hypothesis is consistent with the idea that companies have the value more flexibility to use of lucrative investment opportunities to maintain its high levels of cash. This hypothesis is consistent with the results of research.

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