The Relationship between Stock Institutional Ownership and Cash Holding on Corporate Return in the Context of Listed Companies in Tehran Stock Exchange

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ABSTRACT

This research is of applicable type and is aimed at investigating the relationship between stock institutional ownership and cash holding and the number of non-executive managers of board of directors as independent variables in addition to Turbin’s Q as the index of corporate return and a dependent variable in companies accepted in Tehran stock market. To this end, 6-year data of 72 companies (1386-1391) are scrutinized. To verify the correctness of research hypotheses and to test these hypotheses, at first variables of model are investigated and then regression is estimated using finite effects method and panel data. Results show that there is a positive and meaningful relation between cash holding and return of companies accepted in Tehran stock market. Also, there is positive and meaningful relation between stock institutional ownership and return of companies accepted in Tehran stock market. In addition to what mentioned, there is a positive and meaningful relation between the number of non-executive managers of board of directors and return of companies accepted in Tehran stock market.

KEYWORD

stock institutional ownership, the number of non-executive managers of board of directors, cash holding.

INTRODUCTION

From the utilitarian manager point of view, whether cash should be spent or held is a question related to current profit or future flexibility. Quality of investment is of post-event type and it is determined late. Cash holding can be a good measure for investors to make a decision. Totally, companies with weak governance which are under financial pressure are willing to invest. They want to consume cash holdings quickly. Managers who are under weak control prefer to consume cash resources via development and research instead of internal investment. Investors pose a question that whether investment decisions and cash holding lead to lower performance and lower return for companies with weak governance. Evidence shows that investment for supplying investment expenditure and research and development in companies with weak governance leads to lower corporate value and future profitability. Among a number of companies with higher cash holding in the same condition, those companies with weak governance spend cash resources more quickly than companies with better governance. In countries with less support for investors, managers can hold cash resources and divide less cash profit. Kalcheva and Lins1 (2007) evaluated the effect of support for investors on cash holding. They concluded that companies with lower support for shareholders receive more cash holding. Additionally, they found out that there is a negative relation between cash asset and corporate value. This research is aimed at investigating the effect of stock institutional ownership and cash holding on corporate return of companies accepted in Tehran stock market.

PROBLEM DESCRIPTION

The effect of institutional stock ownership and cash holding upon the corporate return of companies listed in stock market helps manager to reduce financial crisis and keep a saving for unpredicted losses and also follow investment policies when company faces financial restraints. Consequently, it is important to have information about whether of institutional stock ownership and cash holding affect corporate return. Research on the mentioned is of high significance because it has been less paid attention.

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1-Kalcheva & Lins
This study is aimed at investigating the effect of institutional stock ownership and cash holding on corporate return of companies listed in Tehran stock market considering other control variables. Primary goal of the current research is providing investors and passive and active creditors with the applicable results of the effect of institutional stock ownership and cash holding on corporate return in order to help them to make reasonable decisions. Secondary purposes are:

1- Investigating the effect of cash holding on corporate return of companies listed in Tehran stock market
2- Investigating the effect of ownership percentage of institutional shareholders on corporate return of companies listed in Tehran stock market
3- Investigating the effect of non-board members on corporate return of companies listed in Tehran stock market.

THEORETICAL BACKGROUND

THE CONCEPT OF INSTITUTIONAL INVESTORS

According to the definition introduced by Bushee² (2000), institutional investors are big investors including banks, insurance companies, investor companies etc. generally speaking, it is believed that institutional investors can change the corporate behavior. It is originated from the supervision functions investors do. According to Starks (2003), institutional owners play a significant role in corporate changes. These shareholders are the most powerful controller because they own a great part of ownership. They can affect accounting trends and financial reporting. Additionally, they have a great incentive to supervise financial reporting and financial statements especially profit and loss.

CONCEPT OF NON-EXECUTIVE MANAGERS OF BOARD OF DIRECTORS

Independence of board of directors due to presence of non-executive managers of board of directors is a factor considered as a very significant factor affecting quality of performance of board of directors in some researches. Non-executive managers as agents of shareholders have incentives to prevent and explore utilitarian reporting behavior of non-executive managers.

EXPERIMENTAL BACKGROUND

Khodadai and Taker³ (1391) evaluated the effects of features of corporate governance including ownership concentration, institutional investors, governmental ownership, and dichotomy of director’s responsibilities and the number of non-executive managers of board of directors upon corporate financial performance and value of stock companies. Results have shown that there is a positive and meaningful relation between ownership concentration (governmental ownership) and corporate performance.

CONCEPTUALIZED MODEL

Combined regression model is used to estimate research model. Combined regression model is done through four following methods based on finite coefficient of equation:

1. Method which estimates equation without intercept

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²- Bushee
³- Khodadadi& Taker

[References]

4- Modares, Hosseini, Seyyed and Raeisi
5- Harford, Mansi& William
6- Dittmar, Mahrt-Smith
7- Navissi& Naiker
8- Black & Bernard
9- Chaganti & Damanpour
2. Method which considers a common finite coefficient for all members of combined data set
3. Finite effect method which considers different finite coefficients for each member of combined data set
4. Random effect method in which finite coefficients for each member of combined data set are considered as random variables

To chose among combined regression model and finite effect regression, Lamer F test (generalized) is used. The mentioned method depends on $R^2$ of two methods. This method examines whether $R^2$ with finite effects is bigger than $R^2$ of combined regression model? Statistics of this test is(Eq 1):

$$F = \frac{(R^2_{FE} - R^2_{POOL})/(n-1)}{(1-R^2_{FE})/(nt-n-k)}$$

In this equation, $R^2_{FE}$ is determinant coefficient of regression with finite effects and $R^2_{POOL}$ represents determinant coefficient of combined regression model (common intercept). n is the number of observations, t represents time periods, nt is the total number of observations and k is the number of independent variables of model. $H_0$ shows that there is a meaningful difference between determinant coefficients of two models. Hasman test helps us to chose and use one of the mentioned methods (FE and RE). Hasman test has chi square tangent distribution and its freedom degree equals the number of descriptive variables (the number of regressors). $H_1$ indicates that there is a meaningful difference between estimated coefficients of FE and RE. In case of verifying $H_0$, random effects method is used and in case of verifying $H_1$, finite effects method is used. Statistics of Hasman test is as following(Eq 2):

$$N^2 = (b - B)^2/[VAR(b) - VAR(B)]^{1/2}(b - B)$$

In this equation, b is the coefficient estimated by FE and B is the coefficient estimated by RE (Yafi, 2003). These tests showed that finite effects model is superior to random effects model. Hypotheses were tested based on results obtained from economics model and multi-variable regression. To determine meaningfulness of regression model, Fisher F statistics is used. To test the meaningfulness of independent variables of each model, Student t-test is used at 95% level of certainty. Dorbin-Watson test is used to examine the absence of auto-correlation problem between statements. To test the normality of data, normality of statements test is used based on Eviews. Accordingly, if results of probability are more than 5%, $H_0$ indicating normal distribution is verified. Co-linearity test is used to investigate absence of correlation between descriptive model of research (Shirinbakhsh and Khansari, 1384). According to research background and descriptive variables, research model originated from Lee research (2009) is shown as(Eq 3):

$$\text{TObinQ}_{it} = \beta_0 + \beta_1 \text{CASH}_{it-1} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{LEV}_{it} + \beta_4 \text{CFLOW}_{it} + \beta_5 \text{INV}_{it} + \beta_6 \text{INSTOWN}_{it} + \beta_7 \text{OUTD}_{it-1} + \epsilon_{it}$$

Tobin Q: book value of debts and market value of shareholders divided by book value of assets.

Independent variables
- Cash: cash obtained from balance-sheet directly.
- INSTOWN: institutional ownership of stock presented as percentage of stocked owned by institutional owners.
- OUTD: the number of non-executive managers of board of directors defined as the number of non-executive managers of board of directors to the number of executive managers of board of directors ratio.
- control variables
- SIZE: corporate size which is measured by sale rate.
- LEV: corporate leverage defined as inventory.
- CFLOW: capacity of generating cash flow which is the operational cash flow and shows a further resource of corporate cash.
- INV: investment on finite asset to first-period asset ratio.
- $V$: error.

Research hypotheses
To reach research goals, the following hypotheses are considered:

Hypothesis one: there is a meaningful relation between ownership percentage of institutional investors and corporate return in Tehran stock market
Hypothesis two: there is a meaningful relation between cash holding and corporate return in Tehran stock market
Hypothesis three: there is meaningful relation between the number of non-executive managers of board of directors and corporate return in Tehran stock market.

Research Methodology
Based on purpose, this paper is of applicable type. Based on methodology, the current paper is of descriptive type. Among descriptive papers, this paper is of correlation type. multi-variable regression method is used to test hypothesis based on panel data. Data required for this research is collected from compact discs of Tehran stock market, financial statements and reports published by stock organization. To analyze the mentioned data, Eviews is used and to do further test in order to make sure about accuracy of regression model. SPSS and Eviews are used.

Statistic Population and Sampling
In this paper, financial statements of companies accepted in Tehran stock market for the years of 1386-1391 are
scrutinized. Those companies with the following qualifications are chosen among statistical population without sampling:
1- according to the fact that a six-year period is considered (from 1386 to 1391), companies accepted in Tehran stock market before 29 of Esfand of 1385 whose names were listed in stock table with their shares were investigated
2- companies continuously doing transactions until 29 of Esfand of 1391
3- companies whose transactions were never stopped and according to decisions of stock council they never exiled from corporate list of stock market
4- companies whose fiscal year ended at the end of Esfand

Enforcing these restraints, 72 companies were chosen as sample.

## RESEARCH FINDINGS

### TABLE (1): research descriptive statics

<table>
<thead>
<tr>
<th>Variable</th>
<th>symbol</th>
<th>min</th>
<th>max</th>
<th>mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional ownership</td>
<td>INSTOWN</td>
<td>0.05</td>
<td>0.95</td>
<td>0.56</td>
<td>0.06826</td>
</tr>
<tr>
<td>The number of non-executive managers of board of directors</td>
<td>OUTD</td>
<td>0.11</td>
<td>0.46</td>
<td>0.29</td>
<td>0.120</td>
</tr>
<tr>
<td>Corporate return</td>
<td>TobinQ</td>
<td>0.15</td>
<td>6.5</td>
<td>1.10</td>
<td>0.99</td>
</tr>
<tr>
<td>Corporate size</td>
<td>Size</td>
<td>0.0045</td>
<td>0.61</td>
<td>0.01</td>
<td>0.000012</td>
</tr>
<tr>
<td>Cash flow</td>
<td>CFLOW</td>
<td>401234</td>
<td>482123</td>
<td>4356</td>
<td>5469</td>
</tr>
<tr>
<td>inventory</td>
<td>INV</td>
<td>0.05</td>
<td>0.02</td>
<td>0.12</td>
<td>0.006607</td>
</tr>
</tbody>
</table>

### RESULTS AND ANALYSIS

Results given in table 2 show that modulus of t is bigger than the biggest t in table which equals 2. Therefore, independent variable is meaningful at 5%. Dorbin-Watson coefficient is 1.9 indicating the lack of auto-correlation in model. LM test proposed by Breuch Godfrey is a complete auto-correlation test. In this research, the mentioned test is not used because LM coefficient is 0.96 which is smaller than F coefficient being 4.73 at the level of 0.5%. According to the fact that White variable (0.7) is smaller than F coefficient (which is 4.73 at 5%), then variance equality is accepted and the hypothesis is verified. \( R^2 \) is 0.89. Consequently, corporate return is described by independent variables. Determinant coefficient has a big value because all coefficients of model are meaningful. Therefore, this model lacks the co-linearity problem. 1% increase of cash leads to 0.5% growth of Tehran stock. Consequently, cash positively and meaningfully affect corporate return in Tehran stock market. 1% increase of institutional ownership leads to 0.9% growth of corporate return in Tehran stock market. Therefore, there is a positive and meaningful relation between institutional ownership and corporate return in Tehran stock market.

1% increase of non-executive managers of board of directors leads to 4% increase of return of Tehran stock market. Therefore, 1% increment of corporate size leads to 0.07 growth of corporate return in Tehran stock market. Consequently, there is corporate leverage positively and meaningfully affects corporate return in Tehran stock market. 1% increase of the mentioned ratio leads to 0.17% growth of corporate return in Tehran stock market. 1% increase of cash flow leads to 0.45% growth of corporate return in Tehran stock market. Investment in fixed asset to first-period asset ratio positively and meaningfully affects corporate return in Tehran stock market. 1% increase of the mentioned ratio leads to 0.17% growth of corporate return in Tehran stock market.

### Table (2): results of corporate return regression using finite effects method

<table>
<thead>
<tr>
<th>variables</th>
<th>coefficient</th>
<th>t</th>
<th>Sig</th>
<th>R2</th>
<th>D.W</th>
<th>Calculative F in White method</th>
<th>Calculative F in Lm test</th>
<th>F given in table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.3</td>
<td>7.6</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>0.05</td>
<td>4.8</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>institutional ownership</td>
<td>0.9</td>
<td>5.1</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTD</td>
<td>0.4</td>
<td>3.5</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate size</td>
<td>0.07</td>
<td>7.5</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.04</td>
<td>6.3</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFLOW</td>
<td>0.45</td>
<td>3.83</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INV</td>
<td>0.17</td>
<td>2.3</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSION

This paper is aimed at investigating the effect of institutional ownership and cash holding on corporate return of companies accepted in Tehran stock market. According to available theories, in case of proper supervision, institutional investors are able to prevent cash holding and in lack of proper supervision, they increase cash holding. 1% increase of the number of non-executive managers leads to increase of supervision and reduction of extra cash holding. Analysis of results shows that there is correlation between institutional ownership and cash holding and corporate return. Results are as follow.

There is a relation between institutional ownership and corporate return in Tehran stock market. Results of hypothesis testing indicate that there is a positive and meaningful relation between institutional ownership and corporate return. It verifies the results of Harford et al. research (2008) indicating that there is a positive relation between institutional ownership and cash holding. Cash holding hypothesis positively and meaningfully affects corporate return. Increase of cash holding leads to increase of corporate return. This hypothesis shows that the number of non-executive managers positively and meaningfully affects the corporate return.

RESEARCH RESTRAINTS

In this scientific research, there are some situations and factors out of control which potentially affect the research results. Some of the mentioned limitations are of intrinsic type and some of them are originated from environmental condition and time limitations. It is necessary to analyze results of scientific research considering these limitations. Different restraints are faced:

1) Time period was the business flourishing period. Price to dividend ration was growing in this year compared to previous years. It might affect the research results.

RESEARCH RECOMMENDATIONS

1) According to the fact that there is a relation between cash holding and return, companies are recommended to hold a certain amount of cash for using opportunities and having more flexibility in different situations.

2) It is recommended to have more information about cash holding because increase of cash holding increases corporate return.

3) According to the fact that institutional shareholders play an important role in cash holding; therefore, financial report users should know that the presence of institutional shareholders in a company is the sign of proper supervision on cash holding.

4) It is recommended to disclose more information about board of directors structure because according to this research, increase of the number of non-executive managers increases the supervision on corporate return and leads to increment of corporate return.

REFERENCES


[19] Shirinbakhsh, Shamsolah and Hasan Khansari, Zahra (1384), Usage of Eviews in econometrics, Tehran, economic research publication.