Indian Journal of Science and Technology, *Vol 8(27), DOI: 10.17485/ijst/2015/v8i27/81838, October 2015*
ISSN (Print) : 0974-6846
ISSN (Online) : 0974-5645

Relationship between Institutional Investment Horizon and Investment_Cash Flow Sensitivity

Nazanin Abdoos[1] and Hamidreza Vakilifard[2]

[1]Department of Financial Management, College of Management and Economics, Tehran Science and Research Branch, Islamic Azad University, Tehran, Iran
[2]Science and Research Branch, Islamic Azad University, Tehran, Iran

Abstract

The main aim of the present research is to study the relationship between Institutional investment horizon and investment–cash flow sensitivity in firms listed in Tehran Stock Exchange. The population of the present research includes all the firms listed in Tehran Stock Exchange during 2007 to 2011 that the sample size with the use of screening method and after elimination of irrelevant observations has been obtained to be equal to 102 firms. In this study the institutional investment horizon and type of industry has been considered as independent variables to study their relationship with investment– cash flow sensitivity of the firms in our sample In the present study panel data with fixed effect has been used and the obtained results from data analysis of the firms with the use of multi-variable regression at 95% confidence level indicate that there is a reverse relationship between the investment horizon of institutional investors and investment–cash flow sensitivity of firms. On the other hands, these results indicate that the intensity of the relationship between investment horizon of institutional investors and investment–cash flow sensitivity of firms in different industries is different. In a way that in Metallic mineral and computer industries this effect is not significant while it is significant and reverse in other industries and in medicine industry it has the minimum reverse effect and in basic metals industries has the highest reverse effect.

Keywords: Capital Expenses, Investment–Cash Flow Sensitivity, Institutional Investment Horizon, Type of Industry

1. Introduction

The investment sensitivity refers to cash flows and changes of capital expenses in companies for changes in cash flows. This study is related to concepts of investment and corporative financing (Kashanipor and Taghinejad 1388). The most important factors that investment sensitivity influences on cash flows is Institutional investment horizon. The Institutional investments as one of the most important factors in capital markets is dominating the Stock markets around the world. The variety and growing role of institutional investors, with special attention of researchers confirms mentioned result (Dargahi and Pashanejad 1391).

Hence this study investigates the relationship between Institutional investment horizon and investment sensitivity-cash flow in firms listed in Tehran Stock Exchange.

The financing for long-term investments and working capital consists major part of managers concerns. According of theory of Miler and Modigliani there is no difference between financing from Company's internal or external resources under perfect capital market. In this case the firms can finance through Capital market with the rate of capital expenditure (Arabsalehi and Ashrafi 1390). The capital market cannot be fully effective in practice. Furthermore, leading the firms are available to managers that be not owned by the company. In this case the investors do not trust to company managers and they demand the rate of more returns for financing of projects investment (Liland and Pipely 1997). On the other hand, investors have less information as to the economic condition of firms and in many cases they assess Risk investment in companies more than the actual amount (Arslan et al 2006). Finally, firms financing from external

*Author for correspondence

resources (Equity, Bond) is very costly and causes that the Financing exceeds from declared nominal rate of return. These factors incline the firms to Increasing use of internal resources for financing their investments (Liland and Pipely 1997).

Case study is based on recent evidence that the presence of institutional investors more stable will boost the company's performance (Elyasiani and Jia, 2010), will Reduce the cost of company liability (Elyasiani and Jia, 2010), will improve the performance after merger (Maik Dierkes, et al 2010) and will strengthen acquisition to good status in terms of property acquisition by management (Gasparet al., 2005). In addition, large institutional shares can also have a disciplinary effect on Managers of investee companies through price effect of potential adverse. In this case long-term Institutional investments follow exit Strategy (Admati and Pfleiderer, 2009). In this regard Institutions with large and stable property managers can monitor managers to avoid transaction costs and the impact on prices resulting from the sale of shares of large. This theory is corresponds with Shen et al (2007) and shows that Institutions weigh up costs and benefits of trade versus monitoring. In order to Keep plenty of stock and keep them for a long time, long-term institutional investments can affect Ownership and merger and acquisition transactions positively (Gaspar et al., 2005). Shen et al (2007) have provided further evidence in support from effective regulatory role of long-term institutional investors and in more recent researches Elyasiani and Jia (2008, 2010) have shown that Stability of institutional ownership has a positive impact on company performance.

According to mentioned points, the main question of this study is investigation of effect of Institutional investment horizon on investment sensitivity to cash flows in firms listed in Tehran Stock Exchange. In order to clarify the debate, we will mention a few examples of empirical studies conducted in this area, and then we focus on methods, findings, and conclusions of the research.

Bronotermlay (2013) did a research as "the investigation of relationship between Institutional investment horizon and Appendix Index S&P500". This evidence shows that when we concentrate on the different roles of institutional investors the diversity and heterogeneity of institutional matters.

Giladliona et al (2013) did a research as "the investigation of relationship between investment horizon, risk and Compensation in the banking industry" that the findings of this research shows that Banks with invested heavily short-term cash are paid less benefits and in contrast to long-term investment banks have sharply lower performance.

Arab Salehi and Ashraf (1390) investigated the relationship between financial constraints and the sensitivity of investment to cash flow. The findings of this study indicate positive role of cash reserves in reducing the sensitivity of investment to company's cash flow. Kashanipor and Taghinejad (1388) in a research as "Effect of financial constraints on the cash flow sensitivity of cash" compared the sensitivity of investment to cash flow and cash flow sensitivity of cash flows as measures of financial constraints. They with the test of significance of the coefficients of optimal cash reserves concluded that the sensitivity of investment to cash flow is more appropriate criteria rather than to Cash flow Cash for determining the financial constraints. However they did not use the equation of optimized cash reserves for the classification of companies. Hasasyeganeh et al (1387) found Evidence about the positive impact of institutional investors on the company in tehran Stock Exchange. This research has shown that institutional investors have incentives to improve performance and they can punish managers who do not move in their interests.

The conceptual model of study is as Figure1:

According to the proposed conceptual, regression model of study is as:

$$\frac{CAPX_{it}}{A_{it-1}} = \alpha_i + \alpha_t + \beta_1 Q_{it-1} + \beta_2 \frac{CF_{it}}{A_{it-1}} + \beta_3 \frac{CF_{it}}{A_{it-1}} \cdot IIIH_{it-1} + \varepsilon_{it},$$

The variables included in this model are defined as follows:

CAPEXit: The amount of capital expenditure of company I in year t that is calculated through net increase in fixed assets during the period.

Ait-1: The total assets of company I in year t-1.

Qit-1: The Q_tubin of company I in year t-1 that is calculated from the ratio of market value to book value of equity of company I in year t-1.

CFit: Net cash flows from operating activities of company I in year t.

Operational definition of investment horizon arises in two ways as follows:

The first method:

IIIHit-1: Horizon of institutional investors of company I in year t-1 that is dummy variable.If the Percent ownership of the long-term institutional investors is more than

of the percent ownership of the short-term institutional investors, we consider 1.otherwise 0 is considered. The percent ownership of the institutional investors is equal to Shares held by state-owned companies and public capital stock of the Company.

The second method:

IIIHit-1: Horizon of institutional investors of company I in year t-1.in order to calculating of Horizon of institutional investors according to the research of Nejahatij et al (2012), weighted average flow rate of institutional shareholders is used as follow. The lower weighted average is indicative of higher Horizon of institutional investors.

$$WACR_{j,t} = \sum_{k=1}^{M_{j,t}} w_{k,j,t} AVG\_CR_{k,t}$$

Wk,j,t: Institutional Shareholder's percentage ownership k in company j.
Mj,t: The number of institutional investors of company j.
AVG_CRk,t: Institutional Shareholder average turnover rate k that is calculated as follow:

$$AVG\_CR_{k,t} = \frac{1}{4} \sum_{r=1}^{4} CR_{k,t-r+1}.$$

$$CR_{k,t} = \frac{\sum_{i=1}^{N_{k,t}} |S_{k,i} P_{i,t} - S_{k,i,t-1} P_{i,t-1} - S_{k,i,t-1} \Delta P_{i,t}|}{\sum_{i}^{N_{k,t}} \frac{S_{k,i,t} P_{i,t} + S_{k,i,t-1} P_{i,t-1}}{2}},$$

Nk,t: Number of shares of company I that is stored by Institutional Shareholder k in t three-month of year.
Pi,t: The price of Institutional Shareholder I in t three-month of year.
r: first 3-month to fourth 3-month.
Population and sampling:
Since the time domain of this study is from 1386 to 1390, hence the population includes all firms listed in Tehran Stock Exchange. The method of FA systematic sampling is as Table 1.

2. Result

Descriptive statistics of research variables that have been calculated using data of companies during the years of 1386 to 1390, includes the mean, median, standard deviation, minimum and maximum (Table 2).

2.1 Test of Research Hypotheses

2.1.1 Test of First Hypothesis

First hypothesis: There is a reverse relationship between the investment horizon of institutional investors and investment–cash flow sensitivity of firms.

After testing the assumptions of regression and make sure they are confirmed, the results of the fitting of mentioned regression equation for manufacturing companies is presented in Table 5 the value of F Statistics (11.276) shows that the regression model is significant. The coefficient of determination and adjusted coefficient of determination of mentioned model is 56.2% and 50.7% respectively. Hence we can conclude that in mentioned regression equation, roughly 50.7 % of Changes in capital expenditure of companies surveyed is determined by Independent and controlled variables.

According to Table 5: Significant level of sensitivity of investment to cash flow

(CF_{it} /A_{it-1}) is 0.031 that it is less than of considered Significant level in this study (5%), Absolute t statistics of this variable (3.158) is more than t statistics of table with the same freedom degree. Therefore at 95% confidence level, the obtained coefficients for the mentioned variables in the regression model of study is significant. On the other hand Significant level of interaction effect of horizon of institutional investors and investment sensitivity to cash flow (CF_{it} /A_{it-1}*IIH_{it-1}) is 0.017 that it is less than of considered Significant level in this study (5%), Absolute t statistics of this variable (3.838) is more than t statistics of table with the same freedom degree. Withconsidering the negative sign of the coefficient of the mentioned variable (-0.467), we can conclude that there is a reverse relationship between the investment horizon of institutional investors and investment–cash flow sensitivity of firms. Hence the first hypothesis is confirmed.

2.1.2 Test of Second Hypothesis

Second hypothesis: The intensity of the relationship between investment horizon of institutional investors and investment–cash flow sensitivity of firms in different industries is different. After testing the assumptions of regression and make sure they are confirmed, the results of the fitting of study regression equation to industry Separation is presented in Table 5. The value of F Statistics shows that the entire regression model is significant in

every industry. The coefficient of determination and adjusted coefficient of determination of regression model are presented too.

As shown in Table 5 significantly changing the sensitivity of investment to cash flow (CF_{it}/A_{it-1}) in regression model of mentioned industries is 0.000, 0.541, 0.0037, 0.000, 0.000 and 0.217 respectively. Since significantly changing the sensitivity of investment to cash in basic metals, chemicals, Automotive and pharmaceuticals is less than of considered significant level in this study (5%); therefore at 95% confidence level, the obtained coefficients for the mentioned variables in the regression model of basic metals, chemicals, Automotive and pharmaceuticals is significant, while in Metallic mineral and computer industries this effect is not significant.

According to of value of variable coefficient of interaction effect of horizon of institutional investors and investment sensitivity to cash flows ($CF_{it}/A_{it-1}*IIH_{it-1}$) in industry of basic metals (-0.911), chemicals (-0.761), Automotive(-0.712) and pharmaceuticals (-0.134) indicate that the intensity of the relationship between investment horizon of institutional investors and investment–cash flow sensitivity of firms in different industries is different. In a way that in Metallic mineral and computer industries this effect is not significant while it is significant and reverse in other industries and in medicine industry it has the minimum reverse effect and in basic metals industries has the highest reverse effect. Hence the second hypothesis is confirmed.

3. References

1. Admati A, Pfleiderer P. The Wall Street Walk and shareholder activism: Exit as a form of voice. Review of Financial Studies. 2009; 22:2645–85.
2. Agca S, Mozumdar A. The impact of capital market imperfections on investment–cash flow sensitivity. Journal of Banking and Finance. 2008; 32(2):207–216.
3. Arslan O, Florackis C, Ozkan A. The role of cash holdings in reducing investment-cash flow sensitivity: Evidence from a financial crisis period in an emerging market. Emerging Markets Review. 2006; 7(4):320 –38.
4. BrunoT. Institutional Investment Horizon and the S&P 500 Index Addition. Saint-Mary's University; 2013
5. Chen X, Harford J, Li K, Monitoring: which institutions matter? Journal of Financial Economics. 2007; 86: 279–305.
6. Elyasiani E, Jia J. Distribution of institutional ownership corporate firmperformance. Journal of Banking and Finance. 2010; 34:606–20.
7. Elyasiani E, Jia J, Mao CX. Institutional ownership stability and the cost of debt. Journal of Financial Markets. 2010; 13:475–500.
8. Gaspar J, Massa M, Matos P. Shareholder investment horizons and the market for corporate control. Journal of Financial Economics. 2005; 76: 135–65.
9. Goergen M, Renneboog L. Investment policy, internal financing andownership concentration in the UK. Journal of Corporate Finance. 2001; 7:257–84.
10. Leland HE. On consumption and portfolio choices with transaction costs. In Balch, M.
11. Maik Dierkes, et al. Investment horizon and the attractiveness of investment strategies: A behavioral approach. Journal of Banking and Finance. 2010; 34 (5):1032–46.
12. Nida Abdioglua, et al. Foreign institutional investment: Is governance quality at home important? Journal of International Money and Finance. 2013 Feb; 32:916–40.
13. Raul I. A spatial dominance approach to evaluate the performance of stocks and bonds: Does the investment horizon matter? The Quarterly Review of Economics and Finance. 2013; 53(4):429–39.