

Empirical Study on Institutional Investors, Free Cash Flow and Corporate Performance

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Abstract. In recent years, the institutional investors play a vital role in corporate governance. Institutional investors have gradually been affirmed of great importance in the company management with the increase of their stake. The problem of free cash flow has caused more and more attention. And it has gradually become an important factor for investors to measure the corporate performance and the development of the company. It is directly related to the significant improvement of the corporate performance that how to perform the institutional investors' shareholder activism and how to strengthen the regulation of free cash flow usage.

The Features of Current Sports Media in China

In recent years, the number of the institutional investors has grown and the shareholder activism of institutional investors has increasingly appeared. The convertible bonds incident of China Merchants Bank, the fund boycott of issuing H shares of ZTE, the rejected additional motion of Chongqing store reflect the active participation of institutional investors in corporate governance and equity restriction. They also show the institutional investors' unique advantages and strength in corporate governance structure.

Literature Review

In the modern corporation governance, the separation of ownership and management helps to form the principal-agent relationship between the shareholders and the management. Due to the difference of information asymmetry and the value orientation, it leads to the existence of the contradiction between the shareholders and management goal. Institutional investors rely on the scale advantages of the ownership, the professional technical advantages and the information advantages, so as to avoid internal administrators from manipulating of surplus, supervise and reduce the expropriation of large company shareholders' funds opportunist behavior, reduce shareholder agency cost and improve corporate performance. There are many researches on institutional investors' shareholding and corporate performance at home and abroad. The main aspects are shown in the following.

The view of shareholders participating in the governance. In Berle and Means's (1932) hypothesis [1], after the separation of two rights, it would cause the problem of corporate performance because the company owners and operators hold different opinion on the profit target. As the external stock owners, institutional investors can supervise business decisions and participate in the investment decision. To a certain extent, it helps to ease the contradiction between the differences between shareholders and managers and improve the corporate performance. Kaplan and Stromberg's (2001) [2] research proved that there was a positive correlation between institutional investors and corporate performance. Institutional investors can influence the corporate performance through "vote by hand" and "vote by feet" rights, as well as the volatility of management stock price in capital market, the change of manager market and the regulation of the product or service in product market.

The view of shareholders' dividend. The dividend is the embodiment of shareholders to obtain investment returns. The dividend distribution is an also objective reflection of the company's performance. Institutional investors prefer dividend distribution to a certain extent. While selecting investment targets and making investment decisions, they tend to obtain long-term dividends as standard. SooJungKim, Wonsik Sul, Shin AE Kang (2010) [3] have found that the dividend distribution policy of institutional investors and corporate influence each other. They were positively correlated. According to statistics, there were 1642 public companies carrying out cash dividend in 2012, accounting for 68% of the total number of public companies. The cash dividend amount reached 62,980,000 yuan, accounting for 34.7% of the net profit.

The view of free cash flow. Since Jansen (1986) put forward the concept of "free cash flow", the problem of corporate performance gradually transit to the free cash flow. Hu Jianping and Gan Shengdao (2007) [4] proposed free cash flow is so large that it may cause the problem of administrators' on-the-job consumption, excessive investment, low efficiency, which lead to the phenomenon of "fat" enterprise cost and the corporate performance continue to decline. Liu Yinguo and Yang Ning's (2012) empirical study found that state-owned holding company left plenty of free cash flow [5]. However, their effective utilization of free cash flow is low, affecting the corporate performance. The medium and small shareholders participating in the enterprise causes high cost of free cash flow high regulation. In terms of the free cash flow, they prefer "free rider", which seriouslyimpacts the company's free cash flow and investment and reutilization benefit.

To sum up, this paper puts forward the following hypothesis:

Hypothesis 1: Free cash flow is positively correlated to corporate performance. If the use efficiency of the free cash flow is not high, it will directly affect the company's future annual performance level.

Hypothesis 2: Institutional investors are negatively correlated to free cash flow. Relying on their professional, scale and the advantages of long-term investment and other characteristics, institutional investors can play a balancing role and enhance the effective use of free cash flow.

Hypothesis 3: The institutional investors and the corporate performance is a positively correlated. To restrict the role of institutional investors in free cash flow, the inefficient use of free cash flow should be prevented in the company management to a certain extent. In this way, it would help to guide to a better and healthy company development combined with the free cash flow, which can also improve the corporate performance.

Research Design

The data in this paper includes relevant financial data of public companies in manufacturing, collected from China's Shanghai and Shenzhen stock market A strands in 2007-2011. The data were selected in accordance with the following standards: (1) rejecting financial public companies; (2) eliminating the incomplete sample data; (3) eliminating sample firms with the problem of abnormal net profit rate of total assets. Eventually, we got 2145 sample firm records, 425 companies in each year. Data mainly come from the China Tai'an database (CSMAR) and the related data of China securities network. Excel and SPSS 19 were used for data analysis.

Variable setting

Variable	Definition	Calculation formula	Sign
1 Dependent variable			
Net profit rate of total assets	Represents the profitability of public companies	ROA=net profit / total assets in the end of the year*100%	Roa or Roat-1
2 Independent variable			
Amount of free cash flow	The amount of free cash flow owned by the company	Fcf= Net cash flow in operating activities - the amount of income tax expense	Fcf
Institutional investor			inst
3 Control variable			
Growth opportunity	Having a great effect on owning the free cash flow and improve the corporate performance	Tobin-Q is the variable business growth opportunities	Tobin-Q
Assets liability	Assets liability ratio= Assets/ liability *100%	Company's financial development and debt affordability	Lev
Company size	An important index which objectively reflecting the development of the company	Taking the natural logarithm of the company's assets	Size
Cash holdings	Reflecting company's financing trends and its stock levels of free cash flow	(Money + short-term investments) / assets	cash
GLFYL	Reflecting company's usage of free cash flow	GLFYL = Management expenses / operating income	admin
Features of the industry	Reflecting the company's different sources of cash flow and performance	Manufacturing industry = 1; non-manufacturing sector = 0	Ind
The year of being public	Reflecting the years of being public		nf-year

Model construction

Model one: $Ro_a = \beta_0 + \beta_1 Fcf + \beta_2 Tobin-Q + \beta_3 Lev + \beta_4 Size + \beta_5 admin + \beta_6 cash + \sum year + \varepsilon$ (1)

Model two: $Fcf = \beta_0 + \beta_1 Inst + \beta_2 Tobin-Q + \beta_3 Lev + \beta_4 Size + \beta_5 admin + \beta_6 cash + \sum year + \varepsilon$ (2)

Model three: $Ro_a = \beta_0 + \beta_1 Instf + \beta_2 Tobin-Q + \beta_3 Lev + \beta_4 Size + \beta_5 admin + \beta_6 cash + \sum year + \varepsilon$ (3)

Specific Empirical Tests

Descriptive statistic features of the main variables. As shown in Table 1, the proportion of free cash flow in sample firm is 0.04. The mean score of institutional investor shareholding ratio is 19.31 on average. The proportion of shareholding is relatively low. In China, "a large" capital market is a normal phenomenon. In manufacturing industry, performance of the year is equal to that of the following year, which shows the steady development and relatively stable performance.

Table 1 Description of the main variables

	Sample quantity	Minimum	Maximum	Mean	SD
Performance of the following year	2145	-2.75	2.57	.037	.12
Performance of the year	2145	-2.75	2.57	.04	.125
Free cash flow	2145	-1.67	.46	.04	.08
Institutional investor shareholding ratio	2145	.00	100.00	19.31	18.996
Tobin-Q	2145	.00	37.15	2.17	1.84
Assets liability	2145	.007	6.740	.504	.365
Company size	2145	16.93	26.16	21.43	1.25
GLFYL	2145	.005	7.714	.093	.227
Cash holdings	2145	.0002	.997	.1716	.120
Effective N	2145				

Regression analysis. As shown in the results of Model (1), in 2007-2011, the domestic manufacturing companies' free cash flow (fcf) and their net profit of the year and the following year were significantly and positively correlated at a significance level of 0.005. And the regression coefficient is 0.115, which shows a positive correlation between the amount of the free cash flow and the corporate performance. If the free cash flow is larger, the company's operating cash flow and its corporate profits would be. At the same time, the company free cash flow will have a positive effect on the corporate performance of the year, which is a manifestation of the profit cumulative effect.

Model 1 Regression results

	Unstandardized Coefficient		Standard coefficient	t	Sig.
	B	SD	Trial		
(Constant)	-.188	.050		-3.766	.000
Free cash flow	.115	.031	.079	3.691	.000
Tobin-Q	.009	.002	.132	5.443	.000
Assets liability	-.076	.008	-.223	-9.714	.000
Company size	.011	.002	.115	4.926	.000
GLFYL	-.021	.012	-.038	-1.763	.078
Cash holdings	.089	.023	.085	3.837	.000
The year of being public	-.002	.001	-.067	-2.950	.003

a. Dependent variable: Performance of the following year

From the test results of Model (2), we can find that the free cash flow of the company (FCF) has a positive correlation with the proportion of institutional investors holding below 0.1, which was relatively weak. The main reason is that the phenomenon of "alone big" in China's public companies is quite serious. In manufacturing companies, most of them are original state-owned enterprise. There are many state-owned holding companies. Therefore, the proportion of institutional investors is quite limited.

Model 2 Regression results

	Unstandardized Coefficient		Standard coefficient	t	Sig.
	B	SD	Trial		
(Constant)	-.071	.035		-2.024	.043
Institutional investor shareholding ratio	.000	.000	.036	1.725	.085
Tobin-Q	-.003	.001	-.059	-2.433	.015
Assets liability	-.042	.005	-.179	-7.850	.000
Company size	.005	.002	.071	2.866	.004
GLFYL	-.004	.008	-.011	-.484	.628
Cash holdings	.124	.016	.172	7.790	.000
Number of the board	.003	.002	.066	1.589	.112
Number of independent directors	-.007	.004	-.069	-1.675	.094
Number of supervisors	-4.321E-5	.002	-.001	-.028	.978
The year of being public	.001	.000	.068	2.957	.003

a. Dependent variable: Free cash flow

Model (3) reflects there was a positive correlation between institutional investor shareholding ratio (Inst) and corporate performance of the year in manufacturing at a significance level of 0.05. And there was a positive correlation between institutional investor shareholding ratio (Inst) and the corporate performance of the following year, but the correlation is not strong. At the same time, this paper also detected institutional investor shareholding ratio (Inst) and free cash flow (FCF) between cross coefficient and manufacturing corporate performance levels. The study also found that the cross coefficient and corporate performance of the year have a positive correlation below 0.01 and the correlation is significant, which shows that they have great influence on the corporate performance. The cross correlation coefficient of the corporate performance of the following year is also positively correlated below 0.05.

Model 3-1 Regression results

	Unstandardized Coefficient		Standard coefficient	t	Sig.
	B	SD	Trial		
(Cash holdings)	-.218	.050		-4.369	.000
Institutional investor shareholding ratio	.000	.000	.045	2.178	.030
Assets liability	-.082	.008	-.241	-10.706	.000
Company size	.014	.002	.143	5.832	.000
Tobin-Q	.008	.002	.121	5.021	.000
Cash holdings	.105	.023	.101	4.600	.000
Number of the board	.000	.002	-.002	-.049	.961
Number of independent directors	-.005	.006	-.032	-.787	.431
Number of supervisors	-.004	.002	-.038	-1.679	.093
The year of being public	-.002	.001	-.062	-2.700	.007

a. Dependent variable: Performance of the year

Model 3-2 Regression results

	Unstandardized Coefficient		Standard coefficient	t	Sig.
	B	SD	Trial		
(Cash holdings)	-.167	.051		-3.284	.001
Institutional investor shareholding ratio	.000	.000	.020	.926	.354
Assets liability	-.030	.008	-.089	-3.849	.000
Company size	.010	.002	.099	3.950	.000
Tobin-Q	.006	.002	.095	3.847	.000
Cash holdings	.155	.023	.150	6.666	.000
Number of the board	.001	.002	.018	.426	.670
Number of independent directors	-.007	.006	-.047	-1.117	.264
Number of supervisors	-.003	.002	-.029	-1.244	.214
The year of being public	-.001	.001	-.046	-1.951	.051

a. Dependent variable: Performance of the following year

Conclusions and Suggestions

We can find that the free cash flow of company stock has a dual character. On one hand, it can evaluate and measure the corporate performance by using free cash flow index. If the company operates well, its net cash flow and free cash flow would be adequate. On the other hand, the effective use of the company's free cash flow will also affect the company's future performance levels. Through the refinancing of free cash flow and the regeneration of capital usage efficiency, it would bring new inflow of funds for the development of the company and improve corporate performance. Institutional investors have the dual effects of the internal balance in public companies and the external governance. They have certain restriction on large shareholders and company management layers. However, based on the particularity of domestic capital market and the development level of public companies, this kind of "Shareholder Activism" is affected by the multi surface factors. The institutional investors can hardly fully play their unique professional management ability. Therefore, we should actively develop and enlarge the size of the institutional investors, which are still an important task to regulate and improve China's capital market and corporate governance.

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