EMPIRICAL STUDY ON THE RELATIONSHIP AMONG GOVERNMENT HOLDING, ASSET INJECTION AND LISTED COMPANIES PERFORMANCE – EVIDENCE FROM CHINA SECURITIES MARKET

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Abstract

This paper aims to investigate the private placement of equity (PPE) by asset injection in China. It analyzes the influence to shareholders' wealth and performance in the state-holding listed companies and private-holding listed companies. The key findings of this paper are the shareholders' wealth and performance increased in the short-term, but decreased in long-term after announcement of asset injection by major shareholders. After asset injection, the state-holding listed companies experience larger decline in the long-term shareholders wealth and performance than private-holding listed companies.

Keywords: Asset Injection, International Corporate Governance, Private Placement of Equity, Shareholders' Wealth, Tunneling, Related Party Transactions, China Securities Market

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1 Introduction

Along with the share-split reform, many Chinese companies took segmental listing (Wu, 2004) and some of them spin off high-quality assets for segmental listing so as to satisfy the regulations of China Securities Regulatory Commission¹. After the reform in 2006², an increasing number of major shareholders injected their unlisted assets into the listed companies in Chinese Security Markets. From the beginning of 2006 to the end of 2012, there were 3871 times of injection of assets and the total figure in monetary term was amounted to 1194.477 billion RMB. This phenomenon is unique to China Securities Market because "spin-off" does rarely exist in other Therefore there have rarely countries. been acquisitions of the unlisted assets that belong to the major shareholders. Some studies have been done in the controlling shareholders' "tunneling" phenomena in the Hong Kong (Cheung et al., 2006) and Korean

listed companies (Bae et al., 2002) within the Group merger and acquisition activities. There is little literature on the acquisition of major shareholders' unlisted assets in other countries. The reason for the lack of research effort in this area may be because that the Chinese stock market has not yet been fully open to foreign investors. As a result, international scholars pay little attention to the assets injection problem in China.

Although there is limited international literature in this research area, there are quite a few Chinese literature on why the major shareholders are enthusiastic about inject their unlisted asset in Chinese listed companies. Huang and Yin (2008), Zhu and Zhang (2010) suggest that, after the share-split reform, the largest shareholders shares can be traded in stock market. Consequently, the assets injection makes the assets value increase, and the increased profits induce more major shareholders to inject assets in listed companies in China. Some researchers argue that the injection of assets can lead to integration, promotion a complete industrial chain, and creation of synergies as well (Liu et al., 2011; Tang et al., 2010). However, the mainstream argument is major shareholders are using assets injection to "tunneling". "Spin-off" effect cuts off the industrial chain of listed companies and conglomerates, which results in more related party transactions (Zhang and Guo, 2008; Ji et al., 2010; Zhang and Li, 2010).

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¹ At the early establish stage of China Securities Market, the listed companies can issue current stock and noncurrent stock. They have different trade right makes the idea of share split. In order to solve the problem of split share, the China Securities Regulatory Commission starts the split share structure reform in 2006. The reform is on the basis of compensation to tradable shareholders, to allow non-tradable shares trading in the stock market.

² At present, it only allows qualified foreign investors to buy shares of China stock market.

Although these studies analyzed different angles of major shareholders' assets injection in China, these studies do not distinguish between the various different controlling shareholder categories. Moreover, there is no analysis and testing of the problem that how assets' injection impact on the longterm shareholders' wealth and operating performance among different controlling shareholder categories.

After the Southeast Asia financial crisis, highly concentrated shareholding has resulted in controlling shareholders' plundering behaviors on small shareholders. Different from diverse shareholding in the US and the UK listed companies, there's generally one controlling shareholder in China (Li et al., 2005). Many research indicates, when there is one controlling shareholder, the Free Rider Problem would be resolved at some extent. However there will be more profit conflicts between the controlling shareholders and the non-controlling shareholders than that between the management and the non-controlling shareholders in corporate governance (La Porta et al., 1999 ; Faccio & Lang, 2002 ; Claessens et al., 2002). The controlling shareholders could utilize related party transactions to transfer companies' assets so as to maximize profits (Shleifer and Vishny, 1997 ; La Porta et al., 1998 ; Johnson et al., 2000; Liu et al., 2004; Li et al., 2005).

Hence, related party transaction is a major approach that the controlling shareholders utilize to transfer the assets of listed companies. Chinese listed companies issue private placement of equity (PPE) to buy assets from major shareholders. PPE is regarded as a large-scale related party transaction. The question is, whether the controlling shareholders are "tunneling" from the related party transactions? If so, what is the impact of the largest shareholders' "tunneling" on the performance of listed companies?

The equity structure in China listed company is similar to these in Europe and Southeast Asia (Bai et al., 2005). The China listed company has one controlling shareholder that is distinguished by stateholding and private-holding. Different shareholding lead to different profit goals. For private-owned listed companies, the goal of the controlling shareholder is to maximize self-interests. As for state-owned listed company, the goal of the controlling shareholder is to pursue political objectives (Bai et al, 2005; Cheng et al., 2008). Studies have shown that, in order to adhere to the Government's policy (employment, social pension, social stability and social objectives) and to achieve government officials' political promotion goals³, the Government officials may intervene the state-owned listed companies' operating activities (Bunkanwanicha and Wiwattanakantang, 2008; Ferguson and Voth, 2008 ; Li and Zhu, 2006; Wu et al., 2008; Wang and Wu, 2008). In addition, the performance of state-owned listed companies will decline because of the intervention from the government officials (Shleifer and Vishny, 1994; Fan et al., 2007; Xu and Lv, 2007; Pan et al., 2008; Deng and Zeng, 2009). This paper aims to examine whether there are difference between controlling shareholders of the above two types in the "tunneling" effect? And what are the impacts of the controlling shareholders' behaviors on shareholder's wealth and the company's performance?

In this paper, we investigate the Private Placement of Equity (PPE) by asset injection between 2006 and 2007 in China, and we analyze the influences of the asset injection on the shareholders' wealth and performance in state-holding listed companies and private-holding listed companies.

Some of the main findings of this paper include: First, when related party's asset injection occurs in a listed company, shareholders' short-term wealth will increase. However their long-term wealth and the whole company's business performance will not be significantly improved. Second, PPE by assetinjection of the state-owned company displays substantially regressive reaction than private-owned company on shareholders wealth and operating performance.

The contributions of this research are: First, this paper makes a new interpretation of asset injection phenomena from the perspective of agency theory. Second, the findings of this research expand the use of agency theory in controlling shareholders and noncontrolling shareholders from the perspective of corporate governance of listed corporations. Third, the study enriches the literature of assets injection of listed companies in the emerging securities market. In particular, a special attention on different types of controlling shareholders could enhance the understanding of the relationship between the government and enterprises in transitional economies.

The rest of the article is organized as follows: The second section is a literature review and theoretical hypothesis, and it is followed by the third section, which is data and methodology. The fourth section provides the empirical results. The last section concludes the paper.

2 Literature review and theoretical hypotheses

Since the 1997 East Asian financial crisis, more attention has been paid to controlling shareholders' plundering behavior on small shareholders through tunneling. From the global perspective, ownership structures of listed companies are relatively concentrated in most countries, except those in Britain and America. In those countries which have concentrated corporate ownership structures, controlling shareholders commonly exist (Shleifer and Vishny, 1997; La Porta et al, 1999, 2002;



³ Economic performance indicators become the selection and promotion standards for local officials in China than pure political indicators. The economic performance indicators include local GDP growth, the local fiscal revenue growth and employment indicators etc (Liu, 2005).

Claessens et al, 2000, 2002 ; Bae et al., 2002). Among British and American listed companies, due to deconcentration of ownership structures managements were able to pursue their benefits and harmed shareholders' interests with fewer restraints. The Enron case reveals the 'insider control' problem resulting from deconcentrated ownership structures completely. However, as a mechanism which remits the agency problem between shareholders and management, the existence of controlling shareholders not only plays a positive role on corporate governance, but also derives another agency problem. Controlling shareholders could favor themselves through their power and rights of control over companies, whereas non-controlling shareholders cannot share those benefits. As a result their interests are inevitably harmed. The agency problem above is particularly obvious in those countries in which the legal system and the investor-protection mechanism are unsound, such as Mainland China and countries in Southeast Asia. (Faccio et al., 2001 ; La Porta et al., 2002 ; Bai et al., 2005). Therefore, controlling shareholders may harm non-controlling shareholders' interests in the case of a relatively concentrated ownership structure.

Controlling shareholders can harm noncontrolling shareholders' interests through tunneling in two approaches. One approach is self-dealing transaction, in which controlling shareholders can transfer resources of companies and seek for their own interests (Jian and Wong, 2004). Typical self-dealing transactions are theft and fraud, trading of assets, transfer pricing, excessive management compensation, guarantee, occupation of loan investment opportunities and so on. The other approach is discriminatory treatment on non-controlling shareholders, in which controlling shareholders are able to achieve the ultimate objective of maximizing self-interests (Jian and Wong, 2004). Such discriminatory treatments include dilutive share issues, minority freezeouts, insider trading, creeping acquisitions and other financial trading.

A highly concentrated ownership is prevailing among Chinese listed companies (Wu, 2004). Among those companies, the holding percentage of controlling shareholders is more than 54 percent in average (Xu et al., 2006). Many researchers find that controlling shareholders have incentives to tunnel listed companies by means of asset appraisal (Zhou et al., 2003), self-dealing transaction (Jian and Wong, 2004) and occupation of capital (Li et al., 2004). Related party asset injection in Chinese listed companies is a large-scale self-dealing transaction between companies and their controlling shareholders (Li et al., 2004). Since Chinese legal system is not well established and still has lots of room for improvement, the asset injection of listed companies is mainly reviewed and overlooked by China Securities Regulatory Commission (CSRC) (Wu, 2004). Under such an institutional background, controlling

shareholders of Chinese listed companies have incentives to gain private benefits through asset injection among related parties. There are several ways to realize those incentives. For example, controlling shareholders can inject low-quality assets into the listed companies (Li et al., 2004) or overestimate values of assets injected by asset appraisal (Zhou et al., 2003). Besides, they can also manipulate considerations of assets injected, in order to exchange more shares (Zhang, 2010). Tunneling behaviors above could lower the quality of assets, and even affect the going concern of listed companies and thus harm shareholders' wealth (Zhang and Li, 2010).

When carving on related party's asset injection, Chinese listed companies often claim in their announcements that assets injected are all high quality assets from large shareholders. Furthermore, they claim that the asset injection could extend the industrial chain of companies, reduce horizontal competitions, decrease self-dealing transactions, lower transaction costs and produce synergies (Zhou et al., 2003; Liu et al., 2011). Based on the announcements, the non-controlling shareholders could estimate that corporate performance could be improved by asset injection. As a result, they may hold or purchase more of their companies' outstanding shares. This will result in a short-term stock rise of those asset-injected listed companies. However, whether there will be any long-term increase in shareholders' wealth is a question that this paper seeks to explore.

Based on the analysis above, we come up with the first theoretical hypothesis as below:

Hypothesis 1: When related party asset injection occurs in a listed company, shareholders' short-term wealth can be increased, but shareholders' long-term wealth and the entire company's business performance will not be significantly improved.

As we mention above, similar to the listed companies in Europe and Southeast Asia, controlling shareholders exist in the ownership structure of Chinese listed companies (Faccio et al., 2002; La Porta et al., 1999). According to the nature of shareholders, Chinese listed companied can be classified into two types: state-holding and privateholding listed companies. In the private-holding listed companies, controlling shareholders seek maximization of personal interests, whereas in the state-holding listed companies, government officials' political goals are the most imperative objectives (Zhou, 2004; Zhou, 2007).

Those political goals can be divided into two types: (1) resolving the problem of government policy burden (Lin and Li, 2004; Pan et al., 2008). In the process of transitioning from planned economy to market economy, the power structure of Chinese government has been moved from centralization to decentralization. In this process, the local government has obtained or gained financial autonomy and economic administration power (Zhou, 2007). At the same time, the local government also burdens a lot of



social objectives, such as employment rate, social pension and social stabilization (Lin and Li, 2004; Cheng et al., 2008). To resolve those policy burdens, the local government has incentive to provide deficit local state-holding listed companies with financial subsidies and to require the profitable local firms to acquire those that suffer from heavy losses (Pan et al., 2008). (2) Political promotion for local government officials. Since the 1980s, the standards for selecting and promoting local government officials have been replaced by economic performance measures, including the local GDP growth, the local fiscal revenue growth and employment measures. This kind of performance measurement mechanism leads to 'competitions for promotion' among officials (Qian and Xu, 1993 ; Maskin et al., 2000 ; Blanchard and Shleifer, 2001 ; Zhou, 2004, 2007). To increase the local GDP, it is possible that the local government has a strong incentive to expand the size of the government-related listed companies by means of asset injection and place efficiency on 'backseat' (Shleifer and Vishny, 1994 ; Fan et al., 2007 ; Xu and Lv, 2007; Pan et al., 2008; Deng and Zeng, 2009). Such 'arbitrarily arranged' acquisitions through asset injection are indications of the local government's political goals and personal interests. Such acquisitions make very little contributions to a constant improvement of corporate performance (Li et al., 2005) and cannot lead to an achievement of competitive advantages (Song and Zhou, 2007). Therefore, it can be inferred that the state-holding listed companies' business performance may decrease and shareholders' wealth may also be harmed because of the asset injections under the government's intervention.

Based on the analysis above, we come up with the second theoretical hypothesis as below:

Hypothesis 2: Compared with private-holding listed companies, after asset injection, state holding listed companies experience larger reduction in shareholders' long-term interests and companies' business performance.

3 Data and Methodology

3.1 Data Description

Through GTA CSMAR Solution search, we identify 446 PEP (Private Equity Placement) asset-injections with affiliated investors from the January 2006 to December 2007 period by firms that listed Shanghai Stock Exchange (SSE) and ShenZhen Stock Exchange (SZSE). We exclude the sample firms on six aspects,

- i. firms issue B share,
- ii. firms issue H share,

iii. firms are titled ST (Special Treatment) or titled PT (Particular Transfer),

iv. firms ultimate control are unknown,

v. firms financial data and financial transaction data are unknown,

vi. firms financial index data abnormal.

3.2 Model Design and Variable Definition

We test the asset injection effects using the following multiple regression model:

$$CAR / BHAR / ROE = \alpha_0 + \alpha_1 Inject + \alpha_2 Gov * Inject + \alpha_3 Lev + \alpha_4 Size + \alpha_5 Share + \alpha_6 Q + \gamma$$
(1)

$$CAR / BHAR / ROE = \beta_0 + \beta_1 Gov + \beta_2 Inject + \beta_3 Gov * Inject + \beta_4 Lev + \beta_5 Size + \beta_6 Share + \beta_7 Q + \lambda$$
(2)

CAR/BHAR/ROE are explained variables, Inject/Lev/Gov/Size/Share/Q are the explanatory variables and γ/λ are random disturbance terms. Inject=the scale of asset injection/the total asset at the end of the year before announcement; Gov=the government control variable, we defined Gov=1 as firm ultimate control is government and Gov=0 for the others; Lev= asset-liability ratio at the end of the year before announcement; Size=ln (the total asset at the end of the year before announcement); Share=the first majority shareholder shareholding ratio at the end of the year before announcement; Q=Tobin's Q at the end of the year before announcement.

The cumulative abnormal return (CARi) for firm i on T (time period) is defined as follows:

$$CAR_{i} = \sum_{t=1}^{I} AR_{it}$$
(3)

$$AR_{it} = R_{it} - R_{mt} = \frac{P_{it} - P_{it-1}}{P_{it-1}} - \frac{P_{mt} - P_{mt-1}}{P_{mt-1}}$$
(4)

 R_{it} is the daily returns for firm i on day t; R_{mt} is return of the market index which firm i listing on day t; P_{it} is the closing price for firm i on day t; P_{it-1} is the closing price for firm i on day t-1; P_{mt} is the close index which firm i listing on day t; P_{mt-1} is the close index which firm i listing on day t-1.

The buy-and-hold abnormal return $BHAR_i$ for stock i over the period T is defined as follow:



$$BHAR_{i} = \prod_{t=1}^{T} (1 + R_{it,m}) - \prod_{t=1}^{T} (1 + R_{mt,m})$$
(5)

 $R_{it,m}$ is the return for firm i on month t; $R_{mt,m}$ is the market return on month t.

The estimation window is [-5, +25], with day 0 being the announcement.

4 Empirical Results

4.1 The performance analysis of assetinjecting with full size sample

Table 1 shows the regression results of asset-injecting performance with full sample size. The influence of the asset injection to public firms' performance is positive and statistically significant in the short-term. Over the [-5, +25] period, each unit of asset injection improves 0.175 units of corporate performance; Over the [-1, +1] period, each unit of asset injection improves 0.088 units of corporate performance. In the long-term, the asset-injecting scale of listed company does not influence firms' performance significant statistically. The asset injection is not statistically significant with BHAR36 and ROE, which proves Hypothesis 1. We can tell that the asset-injecting performance of state-owned listed companies are much poorer than private listed companies during short-term investigation and long-term investigation by the statistic of significant minus (Inject*Gov) in all regression. The result confirms the Hypothesis 2.

	CAR[-5,+25]	Car[-1,1]	BHAR36	ROE
С	-0.032	-0.202**	3.286**	-0.584**
	(-0.156)	(-2.521)	(2.466)	(-2.522)
Inject	0.175**	0.088***	-0.747	0.109
	(1.983)	(2.571)	(-1.293)	(1.084)
Inject * Gov	-0.064***	-0.022**	-0.328**	-0.073***
,	(-2.830)	(-2.531)	(-2.227)	(-2.848)
Share	0.000	0.000**	0.000	0.000
	(0.707)	(1.968)	(0.084)	(-1.046)
Size	0.000	0.004	-0.127**	0.025**
	(0.004)	(1.240)	(-2.235)	(2.484)
0	-0.042*	0.026***	-0.216	0.081***
~	(-1.862)	(2.946)	(-1.444)	(3.116)
Lev	-0.101*	0.012	0.110	0.012
	(-1.898)	(0.602)	(0.315)	(0.197)
Adjusted R2	0.025	0.036	0.025	0.040
F-test	2.880***	3.788***	2.754**	3.905***

 Table 1. Full sample size regression

Note: BHAR36 refers to study period for 36 months of buy and hold abnormal return. CAR [-5, +25] is the cumulative abnormal return over interval from day -5 to day +25. Car [-1,+1] is the cumulative abnormal return over interval from day -1 to day +1. *** Statistical significance at the 0.01 level;** Statistical significance at the 0.05 level;* Statistical significance at the 0.10 level.

As shown in Table 1, due to the different dependent variable index, there are differences in the regression results with different control variables index. For the company size index (Size), there is no influence to short-term market performance while there are negative influences to long-term market performance and positive influences to financial performance significantly. In general, there are different influences between control variable and explained variables with different index.

4.2 Part sample short-term market performance (CAR) analysis

4.2.1 Univariate analysis

Table 2 shows the AAR, CAAR and independent sample T-test statistic of China state-holding listed companies and private-holding listed companies affiliate asset-injecting by PEP over [-5, +25] period between 2006 and 2007. We can tell that there is generally very little difference of AAR between stateholding listed companies and private-holding listed companies except on day -1, day 5, day 13 and day 21 (which exhibit significant differences). Most stateholding listed firms' AAR are negative after the announcement day. This result is consistent with the argument of Li et al. (2005) and Pan et al. (2008).

Event Day	Private- holding AAR (%)	State- holding AAR (%)	T- statistic	Event Day	Private- holding CAAR (%)	State- holding CAAR (%)	T- statistic
(-5)	0.14	0.02	-0.494	(-5)	0.14	-0.01	-0.494
(-4)	-0.05	0.11	0.759	(-4)	0.09	0.18	0.211
(-3)	0.38	-0.10	-1.396	(-3)	0.47	0.10	-0.606
(-2)	0.50	0.15	-0.439	(-2)	0.96	0.42	-0.775
(-1)	1.14	0.37	-2.134**	(-1)	2.11	0.75	-1.752*
0	0.31	0.13	-0.497	0	2.41	0.86	-1.844*
1	0.33	0.14	-0.704	1	2.74	0.89	-1.817*
2	0.04	0.03	-0.257	2	2.78	0.83	-1.723*
3	-0.19	-0.28	-0.28	3	2.58	0.55	-1.702*
4	-0.12	0.10	0.674	4	2.46	0.64	-1.505
5	0.36	-0.35	-2.263**	5	2.82	0.34	-1.965**
6	0.26	0.03	-0.755	6	3.08	0.36	-2.1**
7	-0.02	-0.13	-0.389	7	3.06	0.21	-2.165**
8	-0.18	-0.07	0.562	8	2.88	0.21	-1.956*
9	-0.07	-0.51	-1.075	9	2.81	-0.22	-2.193**
10	-0.25	-0.02	0.574	10	2.56	-0.29	-2.002**
11	-0.01	0.13	0.371	11	2.54	-0.17	-1.877*
12	-0.23	-0.14	0.641	12	2.31	-0.18	-1.708*
13	0.39	-0.39	-2.094**	13	2.71	-0.49	-2.095**
14	0.26	-0.16	-1.136	14	2.96	-0.61	-2.231**
15	-0.35	-0.09	0.507	15	2.62	-0.80	-2.076**
16	-0.06	-0.04	-0.191	16	2.56	-0.92	-2.092**
17	0.24	-0.06	-1.182	17	2.80	-1.08	-2.237**
18	-0.27	-0.22	0.351	18	2.53	-1.24	-2.136**
19	-0.08	-0.24	-0.514	19	2.45	-1.47	-2.21**
20	-0.18	-0.45	-0.846	20	2.28	-1.91	-2.342**
21	0.20	-0.55	-2.125**	21	2.48	-2.39	-2.666***
22	-0.46	-0.35	0.606	22	2.02	-2.67	-2.531**
23	-0.18	-0.19	-0.277	23	1.84	-2.94	-2.555**
24	-0.27	-0.17	0.391	24	1.57	-3.08	-2.43**
25	0.08	0.17	0.236	25	1.65	-2.93	-2.38**

Table 2. The average abnormal return, cumulative average abnormal return and t-statistic ofstate-holding and private-holding listed companies over [-5,+25] period

Note: *** Statistical significance at the 0.01 level; ** statistical significance at the 0.05 level; * statistical significance at the 0.10 level





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4.2.2 Multiple regression analysis

Table 3 presents the short-term market performance regression result of the sample firms after assetinjecting. The Gov variable is negative in all sets of regression, which confirms Hypothesis 2: the operating performances of private-holding listed companies are better than state-holding listed companies after asset-injecting announcement. The negative performance of state-holding listed companies after the announcement could be explained by "government robbery" in Shleifer and Vishny (1998). As shown in Table 3, the Inject variable presents a positive impact on shareholders' wealth for the [1, -1] period significantly, but has less influence on market performance for the [-5,+25] period. As the test result of the cross term Inject*Gov is negative in all sets of regression, compared with private-holding listed companies, the asset-injecting of state-holding listed companies cannot enhance their short-term market performance and even make it worse. We can conclude that the regression results of Table 3 support the Hypothesis 2 and are consistent with the argument of Pan et al (2008).

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	Car[-5,25]	Car[-5,25]	CAR[-5,25]	Car[-1,1]	Car[-1,1]	CAR[-1,1]
С	0.148	0.006	0.161	-0.109	-0.186**	-0.105
	(0.809)	(0.030)	(0.880)	(-1.539)	(-1.823)	(-1.475)
Gov	-0.051***	-0.051***		-0.017**	-0.017**	
	(-2.769)	(-2.742)		(-2.396)	(-2.362)	
Inject		0.136			0.074**	
0		(1.562)			(2.205)	
Iniect * Gov			-0.059***			-0.019**
. .			(-2.601)			(-2.222)
Share	0.001	0.000	0.001	0.001**	0.000**	0.001**
	(0.910)	(0.752)	(0.846)	(2.258)	(2.036)	(2.141)
Size	-0.002	0.000	-0.009	0.003	0.004	0.003
-	(-0.232)	(-0.049)	(-0.305)	(0.910)	(1.164)	(0.848)
0	-0.043*	-0.043*	-0.043*	0.026***	0.026***	0.026***
~	(-1.888)	(-0.092)	(-1.871)	(2.911)	(2.939)	(2.906)
Lev	-0.098*	-0.097*	-0.101*	0.013	0.013	0.012
	(-1.848)	(-1.831)	(-1.892)	(0.623)	(0.654)	(0.559)
Adjusted R ²	0.020	0.023	0.018	0.026	0.035	0.024
F-statistic	2.836**	2.778**	2.652**	3.838***	3.677***	3.183***

Table 3. The short-term market performance regression

Note: *** Statistical significance at the 0.01 level; ** statistical significance at the 0.05 level; * statistical significance at the 0.10 level

As shown in Table 3, because of the different event window, control variables of the regression results are different. The growth of listed companies (${\mathcal Q}$) before announcement have a negative impact on the short-term market performance over [-5, +25] period significantly, however (Q) has a positive influence on the short-term market performance over [-1, +1] period. The financial leverage (Lev) before announcement shows significant negative influences on short-term market performance over [-5, +25] period but demonstrates a not so significant influence over [-1, +1] period. However, the first majority shareholder shareholding ratio (Share) and short-term market performance share the same positive tendency over [-1, +1] period significantly while insignificantly over [-5, +25] period. We also find the firm size (Size) is not significant in all event window which means there is no influence between the firm size and shortterm market performance during investigation.

4.3 Part sample long-term performance test

4.3.1 Univariate analysis

Figure 2 reveals the BHAR of listed firm which have private placing asset-injection over a 3 year period between 2006 and 2007. The graph shows that the state-owned listed firms BHAR are negative and keep decreasing over 36 months. For the private-holding listed firms BHAR, it fluctuate slightly roughly positive before month 18 and keep negative dropping to below -20% on month 30, then it decreases till month 36 after 3 months' upwards movements. Compared state-holding listed firms BHAR with private-holding listed firms BHAR, the latter performs much better than the former and the maximum gap between them widen to 31.89% on month 36. Hence, after announcement the private-holding listed firms experiences a long-term decline in shareholders' wealth. The state-holding listed firms' shareholders' wealth drop even more than these in the privateholding listed firms. The conclusion further supports the Hypothesis 1 and Hypothesis 2.



Figure 2. BHAR after announcement

Table 4. Th	ie long-term	performance	test
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	BHAR12	BHAR24	BHAR36	ROA	ROE
State-holding	-0.0909*	-0.2478***	-0.5499***	0.0387***	0.0606***
Mean	(-1.955)	(-6.201)	(-8.841)	(12.962)	(15.345)
Private-holding	-0.0387	-0.1311*	-0.2197**	0.0543***	0.1328***
Mean	(-0.703)	(-1.727)	(-2.122)	(10.080)	(3.666)
T-test	-0.05213	-0.11666	-0.33020***	-0.01557***	-0.07219***
statistic	(-0.726)	(-1.454)	(-2.876)	(-2.721)	(-4.029)

Note: *** Statistical significance at the 0.01 level; ** statistical significance at the 0.05 level; statistical significance at the 0.10 level

In order to further examine the difference between state-holding listed firm and private-holding listed firm, we divide the sample into two subsamples, sample A includes state-holding listed firms and sample B includes private-holding listed firms. Table 4 shows the subsamples test results of BHAR12, BHAR24, BHAR36, ROA and ROE. With the increasing span of time, the BHAR difference between subsamples becomes more obvious. In month 12, mean BHAR of sample A is significantly different from zero, whereas mean BHAR of sample B is not significantly different from zero. In month 24 and month 36 both subsamples mean BHAR are different from zero significantly. Through t-tests, state-owned and private-owned listed companies mean BHARs are not statistically significant on month 12 and month 24 while statistically significant in month 36.

Furthermore, we investigate the differences of financial performance between state-holding listed firm and private-holding listed firm. We find the mean ROA and mean ROE ratio are positive. The private-holding listed firm is performed much better than the state-holding listed firm (ROE ratio is 0.0722 greater and ROA ratio is 0.0156 greater). Our results indicate the samples have passed the financial performance difference t-test.

4.3.2 Multiple regression analysis

Table 5 shows the regression of long-term performance after the announcement. Similar to the results Table 3 presents, the Gov variable and the cross term Inject*Gov is significantly negative in Table 5. As Table 3 indicates Inject variable is statistically significant in 3 days from day-1 to day+1, it is not significant for the long-term performance test. Therefore we can conclude that the market performance and financial performance of the state-holding listed firms are worse than the private-holding listed firms after the announcement of asset injection. Those results support the Hypothesis 2 and in accordance to the argument made from the results in Table 3.

Different dependent variables cause differences in regression results. Such as Size, it is negative for BHAR36 index significantly but positive for ROE index significantly. For the growth index Q, it is negative for BHAR36 index non-significantly but positive for ROE index significantly.



	BHAR36	BHAR36	BHAR36	ROE	ROE	ROE
С	2.451**	3.333**	2.505**	-0.451**	-0.474**	-0.471**
	(2.052)	(2.509)	(2.107)	(-2.157)	(-2.259)	(-2.278)
Gov	-0.274**	-0.273**		-0.082***	-0.081***	
	(-2.268)	(-2.260)		(-3.796)	(-3.761)	
Inject		-0.867			0.005	
,		(-1.508)			(1.132)	
Inject * Gov			-0.347**			-0.070***
5			(-2.368)			(-2.753)
Share	0.000	0.000	0.000	0.000	0.000	0.000
	(-0.054)	(-0.084)	(-0.014)	(-0.563)	(-0.674)	(-0.967)
Size	-0.116**	-0.125**	-0.118**	0.025**	0.022**	0.023**
_	(-2.035)	(-2.184)	(-2.090)	(2.480)	(2.078)	(2.369)
Q	-0.215	-0.219	-0.214	0.061**	0.061**	0.081***
~	(0.151)	(-1.462)	(-1.430)	(2.328)	(2.348)	(3.104)
Lev	0.125	0.119	0.111	0.000	0.001	0.012
	(0.357)	(0.340)	(0.318)	(0.002)	(0.020)	(0.196)
Adjusted R2	0.022	0.025	0.023	0.043	0.044	0.040
F值	2.871***	2.780**	2.966**	4.756***	4.180***	4.450***

 Table 5. Long-term performance regression of asset injection

Note: *** Statistical significance at the 0.01 level; ** statistical significance at the 0.05 level; * statistical significance at the 0.10 level

4.3.3 Robustness analysis

In order to verify Hypothesis 1 and Hypothesis 2, we made the short-term market performance, long-term market performance and long-term financial performance as the dependent variable to conduct a regression analysis respectively. The test variables Gov index and Inject*Gov index are negative without alternating in all set of regression. At the same time, our univariate analysis also shows that the asset injection performance of state-holding listed companies are poorer than that of the private-holding listed companies, the evidences above make our research conclusion convincible.

5 Conclusions

The empirical results of this research suggest that the shareholders' wealth and company's performance increase in short-term, but decrease in long-term after the announcement of asset injection by major shareholder. For asset injections, the state-holding listed companies experience larger decline in long-term shareholders' wealth and performance than that of the private-holding listed companies.

This study provides following economic implications and makes recommendations accordingly. First, as the share-split reform is completed in China securities market, the conflicts between controlling shareholder and non-controlling shareholders are about to disappear. However, it does not imply a complete elimination of opportunistic behaviors of the controlling shareholders to obtain self-interests. To restrain controlling shareholders from opportunistic behaviors that would damage the interests of the non-controlling shareholders, it is recommended by this paper that we should improve the corporate governance structure and strengthen legal supervision.

Second, notwithstanding the CSRC continues to improve the asset restructuring of the listed companies documents, M&A documents and other legal documents, it cannot completely prevent the occurrence of opportunistic behavior of the controlling shareholders in PPE by asset injection in China listed companies. Therefore, the regulations for assets injection of the listed companies in China still need to be refined and require further improvement.

At last, because of the government intervention, shareholders' wealth and corporate performance decline after the announcement. Therefore, China should speed up the construction of the market economy system. Most importantly, China should reduce the extent of government intervention from both local and national levels.

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