Privatization Motive, State Governance and Takeover Performance: the Chinese Evidence

Abstract

China is showing an active growing market for corporate control in recent years. Developing this market for corporate control fulfills the state motivation to further privatize Chinese firms to capture privatization benefits. We find support for a new motive for mergers, a privatization motive, absent in the takeover literature, which implies highly positive returns for both the acquirer and the target. Our large takeover sample (1998-2005) consists of 100 percent merger deals and vastly dominated by cash deals which make our results unlikely to suffer from endogeneity. Unique to the Chinese takeover market, the degree of state governance plays an important role in determining abnormal returns. The effect that state governance has on performance is non-linear, and it differs between acquirers and targets. Additionally, diversification merger deals create more value than consolidation deals. Traditionally known asset pricing factors could only provide little explanation to abnormal return performance.

Introduction

Chinese firms have yet to prove the efficacy of privatization efforts to promote initiative and entrepreneurship despite the profound economic changes made in the past two decades. It is well documented that China is rapidly transforming itself into a modern market economy. The size of the national economy, reported in 2008 by the IMF, is 7.9 trillion dollars, making it the second largest in the world after the United States.¹ Remarkably, the growth rate of China's economy is reported to have been the fastest growing major economic nation in the last quarter century with average annual GDP growth rates of more than 10%². Ironically and strangely, despite China's vigorous market reform efforts, the Chinese corporate sector has performed poorly from privatization. Corporate stock return and profitability performance show little or no improvement. Indeed, studies demonstrate falling performance since IPO listing suggests that the theoretical benefits of privatization are not being realized (Wang, 2005; Chen et al., 2000; Xu and Wang, 1997). In fact, Chen et al. (2000) conclude that 3 year post IPO returns of Chinese firms are "disquieting, as investors lose money", and Xu and Wang (1997) suggest that, despite privatization, "no real restructuring is actually done."

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¹ Measured and ranked GDP by purchasing power parity according to the International Monetary Fund, World Economic Outlook Database, Data for 2008.

² "Chinese economy slows to still sizzling 11.5% growth". USA Today. 2007-10-25. http://www.usatoday.com/money/world/2007-10-25-china-gdp_N.htm

Despite progressive market reforms, Chinese firms' lack of performance improvement is costly to the country. For one, gains are not being made. For example, the gradualist approach to enterprise ownership reform, which leaves control rights of the medium-size and large enterprises with public bureaus, has neither maximized the efficiency gains from corporatization nor reaped the full benefits of market integration (Yusuf and Nabeshima, 2006). Indeed, with poor corporate performance, the ability of China to sustain investor investment, attract foreign capital and to invest for future prosperity is questionable in globally competitive capital markets.

One key reason for the poor improvement in Chinese firm post-IPO performance is the continued ownership and control of government, that of state governance in corporations. State control persists despite the major reform of share issue privatization, which was intended to enable private investors to govern formerly state owned enterprises. For instance, Ng et al. (2009) observe that 'mean state ownership' of privatized firms is at least 33%. Additionally, 'legal share ownership', a form of state ownership, has a mean of 17%. Combined, these two forms of state ownership represent, for an average Chinese firm, 50% government ownership whose shares are not tradable. Clearly, private governance is unattainable for many Chinese firms; therefore, privatization benefits are practically unrealizable.

A second reason why privatization is not yielding improved performance is that private ownership rights do not go far enough; private ownership needs further expansion by a market for corporate control. This lack of a market for corporate control to supply new private owners to govern state firms perpetuates continual state governance. The most important market for corporate control is a merger and acquisition market (M & A), which is essential for industries of developed countries to successfully restructure in response to changing economies and industry shocks (Mitchell and Mulherin, 1996). Without such a market, the Chinese corporate sector is unable to respond to industry shocks by restructuring through takeovers to realize value creation and synergies. Yet, given its early IPO history in the early 1990s, this market has been absent for some time in China. In fact, only in the last decade has an active merger and acquisition market begun to develop that can remedy the limitations to allowing concentrated private ownership.

While Chinese share issue privatization and post-IPO performance has been studied⁴, the topic of privatization through an active market for corporate control is not studied to date, in particular, mergers and acquisitions. Control transfers is examined only recently in Chinese corporations (Chen et al., 2008). They examine the impact of control transfers on performance whereby the government sells controlling shares to state and private owners. In their sample, the majority of control transfers, 94 out of 156 (60 percent), of state shares went to other state entities; hence, control transfers do not go far enough in privatizing Chinese firms away from state governance. Hence, we promote that a merger and acquisition market is essential for furthering or completing ownership reform. The M & A market enables further privatization by allowing the portion of state ownership in companies to be taken over by more privatized companies. More importantly, until we understand privatization effects on acquisitions, we cannot know whether privatization efforts are beneficial to improving Chinese corporate performance.

The idea that private versus state governance affects performance in Chinese firms is relatively new. Ownership structure influences on takeover performance through better governance has

received some attention. For example, studies³ show that owner controlled firms perform better than manager controlled firms. Large block shareholders offer monitoring benefits for better performance as this reduces agency costs (Shleifer and Vishny, 1986). In the past decade, the relationship between state governance and Chinese corporate performance is non-linear as found in studies⁴ on post-IPO performance. Most of these studies conclude that highly private governed and highly state governed firms are related to better performance. Given the stream of literature on state ownership and Chinese firm performance, and the stream on ownership structure on takeover performance, it seems imperative to examine state ownership and takeover performance. The share issue privatization experience unique to China presents a special opportunity to examine this relationship. Hence, we are motivated to examine the special circumstance of Chinese governance on takeover performance. Despite a great deal of literature on the performance of mergers and acquisitions and recent attention on governance and takeover performance, there is no study to date on state governance effects on takeover performance.

In this study, we ask how privatization creates wealth gains in takeovers. The basic question is whether state governance impacts on merger and acquisition performance. Our study uses familiar methods to examine real gains to shareholders from takeovers. A stylized fact about M & A performance is that acquirers tend not to gain or lose during takeover announcements. Rather, we propose Chinese acquirers would gain for the reason of a desperately needed market for corporate control; a market which would yield industry restructuring benefits that would reduce inefficiencies and exploit synergies for value creation. Moreover, we propose announcement return gains from Chinese takeover deals differ depending on the degree of state and private governance. In particular, we expect value creation gains to be more prominent to acquirers when state owned targets are acquired. Thus, the degree of privatization raises interesting questions about M & A performance in acquirers and targets, questions which we explore.

We perform this study on a large sample of Chinese corporations involving 1343 acquirers and 2074 targets in takeover deals during 1998 to 2005. Our study has a distinct advantage; it is 100 percent mergers and near 100 percent cash deals which appears to be unique to Chinese takeovers. In contrast, takeover samples in the dominantly North American and United Kingdom samples generally have merger deals paid with stock, and tender offers paid with cash; as well as, mixed payment in merger and tender offer deals. Therefore, this sample allows us to discover clean evidence on the merger and cash payment effects on announcement return performance. Our results will not be complicated by the merger or tender offer, and stock, mixed or cash payment endogenous effects problem on takeover performance.

To investigate privatization and takeover performance in Chinese corporations, we use established methods, clear definitions and robustness tests. First, we analyze short term abnormal returns for performance differences based on governance, as evidenced by, private

 ³ Gorton (2008), Moeller (2005), Ben-Amar and Andre (2006), Netter et al. (2009), Song et al. (1993), Shleifer and Vishny (1986) provide evidence on several aspects of corporate control and governance including the value and performance effects of various ownership groups.
 ⁴ Ng et al. (2009), Qi et al. (2000), Sun et al. (2002), Wei and Varela (2003), Wei et al. (2005) examine the nature of

⁴ Ng et al. (2009), Qi et al. (2000), Sun et al. (2002), Wei and Varela (2003), Wei et al. (2005) examine the nature of the relationship between privatization, as measured by state percentage ownership and stock or operating performance.

governed versus state governed firms. Governance is measured by two key ownership measures. One is the percentage of shares owned by the state. The other is the percentage of domestic A share ownership as used in Chinese IPO studies (Ng et al. (2009), Qi et al. (2000), Sun et al. (2002), Wei and Varela (2003), Wei et al. (2005). We investigate if state governance is related to cumulative abnormal returns in the privatization hypothesis. In the univariate tests of return performance, we divide firm observations into three categories of state, mixed and private governance by this criterion. If the percentage of state ownership is 50 percent or more, it is state governed. If the percentage of state plus private ownership is 50 percent or less, it is treated as mixed governed. We expect to find differences in return performance between state, mixed and privately governed Chinese firms. In the multivariate analyses, we consider least squares regressions of takeover characteristics both separately on bidder and target. Our overall conclusions about privatization effects on takeover performance generally remain the same even as we apply different tests and variable specifications.

While the particular findings, in some cases, differ across tests, we summarize here the more robust and salient findings. First, Chinese acquirers and targets both enjoy positive gains from mergers consistent with our privatization benefit hypothesis. Second, the degree of privatization has significant and pervasive effects on shareholder wealth of acquirers and targets consistent with our hypotheses. For example, state governance has large effects on merger performance. Third, of note, Chinese firms that diversify from mergers result in gains for both acquirer and target shareholders. These gains are significantly higher than the gains from a majority of Chinese firms, which make takeovers within their own industry or country. Overall, these surprising results on return patterns in Chinese mergers differ from much of the vast M & A literature.

Fourth, we expect the non-linear privatization-performance relationship, found in the Chinese IPO literature⁴, to drive shareholder return patterns in Chinese takeover deals. Indeed, our findings bear this out in interesting ways. Since the relationship between corporate performance and privatization is evidently non-linear⁴ (a U-shape) this implies that high private governance and high state governance confer better performance. This suggests that privatization works to improve performance. As a firm has clear private governance, private owners often take a real role in managing the firm, and so the manager-owner agency conflicts are reduced. This Ushape relationship also implies that strong state ownership appears to be beneficial to performance as well. Ng et al. (2009) conclude that clear dominant governance, whether private or state, confers better performance. At the bottom of the U-shape are firms with mixed privatestate control governance which are found to have poorest performance (Ng et al. (2009). Mixed governance firms perform poorly because their unclear control results in ambiguity of cash flow rights and conflicts between corporate versus state welfare objectives. Overall, we find that this U-shaped privatization-performance relationship in the IPO literature does indeed influence shareholder return patterns in Chinese merger deals. That is, we find a non-linear convex or "n" shaped relationship between privatization (or private governance) and merger performance. Specifically, we find that, when state governed acquirers make mergers, there are non-significant positive returns. When private acquirers make mergers, there are significant positive returns, suggesting benefits from privatization. While mixed governed firms are found to perform poorest in the post-IPO performance studies, we find mixed governed acquirers to make the

greatest gains from mergers. This suggests mixed governed firms would gain consistent with our proposition they would benefit because of stronger governance, be it state or private. Moreover, this group stands to gain the most from restructuring changes from merger and acquisition. All things considered, we conclude that the privatization and post IPO performance relationship offers a strong understanding of our privatization and merger performance results. Indeed, we have extended current understanding of privatization benefits from share issue privatization to privatization benefits from an emerging market for corporate control.

Fifth, we do find, as hypothesized, that privatization influences merger gains differently in acquirers than in targets in Chinese mergers. Private governance in firms is related to better merger performance in acquirers. However, it has the opposite relationship with targets; the less privatized the target, the stronger is the merger gain. These results support our hypothesis that private governance confers privatization benefits in merger deals. On the other hand, privately governed targets, likely acquired by firms with more state control, have no performance gains. We suggest here that, privatization benefits from the privately governed target are much less likely to benefit the acquirer due to its larger size, bureaucracy and inflexibility to improve. Certainly, the same pattern of governance affects state governed acquirers and targets differently. For example, state governed acquirers do not have positive merger performance. Consistent with the privatization benefit hypothesis, as expected, such state governed acquirers offer no privatization benefits in mergers. On the other hand, state governed targets have positive merger performance. We suggest that more privately governed acquirers can bestow privatization benefits to state governed targets resulting in merger gains. We conclude that mixed governed firms have superb merger performance regardless of whether it is the acquirer or the target. This group of firms appears to have the greatest gain from merger perhaps because they have the best opportunity to change for stronger state or private governance.

Sixth, our multivariate results show that most traditional asset pricing factors, like size, market to book value, profitability etc., do not appear to adequately explain merger returns as typically found in the literature. Rather, particular to the Chinese takeover market, behavioral factors, such as momentum trading, provide the most significant determinations to merger returns. Others have made similar conclusions; for example, Huang and Eun (2007) address the perception of market irrationality in Chinese markets. They find that market risk (beta), a key asset pricing factor, does not explain cross-sectional variation in average stock returns in Chinese markets. Rather, we find in particular, momentum trading returns 30 days and 10 day mean returns prior to announcement to significantly determine merger abnormal returns. The influence of past market valuations on merger gains are economically significant, dominate firmspecific explanations, and are robust to other regression and variable specifications. Our conclusion corroborates with the weak market efficiency evaluation of Chinese equity markets by Charles and Darné (2009) and the various market imperfections revealed by Huang and Eun (2007).

Overall, a range of evidence in this paper generally supports our privatization hypothesis for takeovers as we discuss the interpretation of the results in Section V. For example, private governed acquirers gain in mergers. On the other hand, private and state governed targets gain. Our evidence is more consistent with the hypothesis that strong and clear governance explains

better takeover performance. Indeed, we find that high degrees of state or private governance have real impacts on shareholder wealth in Chinese takeovers.

It is hard to explain these results given the current literature's⁵ understanding of governance and performance in mergers and acquisitions. It is known that large outside institutions, founding owners, managerial and target⁶ ownership influence returns to target shareholders. Yet, the literature offers neither theoretical privatization/ governance explanations nor empirical support on why this affects takeover gains to acquirers and targets as needed in the case of China. Hence, we examine the case of privatization and performance in Chinese takeovers because it is an opportunity to extend this literature.

Our paper contributes to the literature in several ways. First, this study proposes a privatization benefit as a motive for takeovers, uniquely found in the Chinese market. This is a fresh alternative to traditional perspectives on why managers make takeovers. Traditional views of value creation (synergy) or agency motives are extensively documented in the M & A literature. The privatization motive is new because it is initiated and sustained by many government or state players unlike the managers who make these decisions in an Anglo-Saxon corporate context. Our study has another advantage; our sample of Chinese firms represent pure merger and cash deals which is unlike most studies in the M & A literature that have to deal with the endogeneity problem between takeover attitude (merger versus tender offer) and method of payment intertwined effects on takeover performance. Hence, our results our unlikely to suffer from endogeneity.

Second, the fact that China's market for mergers and acquisitions did not begin until 1994, offers a rich study of the formation of a young takeover market. On the other hand, in takeover markets in developed countries, such as the US, there have been at least five takeover waves (Martynova and Renneboog, 2008). Moreover, while the body of literature on mergers and acquisitions is vast (Martynova and Renneboog, 2008; Bruner, 2002), the studies primarily relate to the United States, and to a smaller degree, the UK, Europe, Canada and Australia, these economies are very different from China's. These markets are developed and efficient; whereas in China, markets show weak efficiency (Charles and Darné, 2009) and imperfect markets (Huang and Eun, 2007). To date, this is the only known study on Chinese takeovers.

Third, we contribute to the literature⁵ on privatization and performance in China. We provide evidence on the importance of governance, the unique state ownership structure germane to China's firms, in explaining takeover performance in a socialist-market setting. As mentioned earlier, the stream of literature on governance and takeover performance is silent in explaining the impact of privatization on M & A performance. Our results are supportive of the theory of privatization (Alchian, 1965; Shleifer, 1998 and Green, 2004), which views that private ownership is superior to state ownership. China's approach to privatization is noted for its gradual approach in contrast to the abrupt approaches taken throughout the developing world,

⁵ Stulz (1988), (Sheifer and Vishny (1986) theoretically consider the impact of target insider ownership on target returns. Empirical studies of Stulz et al. (1990), Song and Walkling (1993) and Bauguess et al. (2009) affirm ownership structure and types of owners impact on target returns. Source from Netter et al. (2009), "The rise of corporate governance in corporate research." Journal of Corporate Finance, 15(1), 1-9.

⁶ Moeller (2005) empirically shows that target shareholder control is positively correlated with takeover premiums.

namely Russia and Eastern Europe. The market for corporate control is a very young phenomenon, little more than a decade, in China's evolving market reform process. The M & A market is growing impressively, and it has a profound influence in restructuring China's economy. The private governance influence on Chinese M & A performance since their IPO listing is not examined so far. So, our study sheds new light on this important feature of enterprise reform.

Fourth, we extend the literature on the market for corporate control on Chinese firms in which there is, to date, only one study that examines control transfers (Chen et al., 2008). They examine the impact of control transfers on performance in which the government sells controlling shares to state and private owners. Our study is a different study on the market for control from Chen et al. paper. In share issue privatization, IPO firms raise new equity capital, but the dominant stockholder does not change as before the listing. In control transfers, (Chen et al., 2008), there is a change in the major block holder, no new equity capital is raised, and the firms have exited the IPO period and have experienced capital market discipline. In our study on M & A, there is a change in the major block holder in a target company while in the acquirer it remains the same; no new equity capital is raised. Thus, our study is quite different from the control transfer study of Chen et al. (2008). Their paper supports the hypothesis that control transfers to private owners result in better performance compared to state owners. However, the study is limited by the small sample size (n=156) and the currency of its sample (1996-2000). This study provides a much larger and more current sample (up to 2005). Therefore, given this gap, we see that our study on Chinese M & A is needed.

Fifth, we find that Chinese firms benefit materially from diversifying mergers which is different from many studies on this issue (Megginson et al., 2004; Doukas and Kan, 2004; Freund et al., 2007).

Our study's key implication is that we can improve Chinese corporate sector performance by reforming towards stronger firm governance through M & A. Definitely, a well functioning takeover market is a potent force to reform firms for stronger private governance, and this is shown to improve performance for the merged firms.

Section II of the paper provides a background on China's privatization program and the corporate merger and acquisition market. This section also explores the economic effects of different types of ownership structure. Next, the hypotheses and methodology are explained. Section III describes our M & A sample. Section V gives a description of results. The last Section VI presents conclusions. An Appendix provides additional results for demonstrating the robustness of our results.

II. Ownership and Corporate Control of China's Listed Firms

A. Economic reforms in China

In the last fifty years, China has undergone remarkable changes in its economic organization to achieve greater prosperity; however, its corporate sector has showed less success. The People's Republic of China has maintained a rigid socialist economic planning system from 1949 to 1978.

During this time, China's development was largely influenced by the doctrine of Mao Zedong which focused on socialism and class struggle. Succeeding after Mao, Deng Xiaoping launched his theory of promoting economic development and stability. It is the Economic Reform Program, initiated at the end of the 1970s, which significantly changed the way corporations were financed in China (Yu, 2005). The reform program has been successful, largely due to Deng Xiaoping's stewardship. Although China began reforming state-owned enterprises in 1978, these enterprises performed poorly from 1980s to 1993. In 1987, losses incurred by state-owned industrial enterprises amounted to 6.1 billion Yuan. Worst yet, losses increased to 34.8 billion Yuan in 1990 and to 45.2 billion Yuan in 1993. In contrast to the radical privatization in Eastern European countries and Russia, which transfer assets to private owners (Boycko et al., 1994), China has followed a gradual market approach in which share equity is issued for sale to private owners while maintaining state governance of the firms. China's economic reforms have embraced Western mantras towards market reform of its corporate sector. This policy of reorganizing control and ownership is also known as "share issue privatization". The country accepts the privatization arguments, adopting these gradually, and continues to maintain state control of its firms in what could be described as a "hybrid" socialist-market economy (Lin and Zhu, 2000). The effectiveness of these privatization efforts is in question given the evidence of poor corporate performance since IPO listing. A salient question is whether privatization has gone far enough for performance improvements to actually occur.

China chose Share Issue Privatization as the means to change state ownership while retaining governance, but more importantly raise capital for its lagging corporate sector and bring capital investment flows. Share issue privatization helped to usher in thousands of Chinese IPOs raising an unprecedented amount of equity capital to these SOEs, and it helped create China's first stock markets, the Shanghai and Shenzhen stock market in 1990 and 1991 respectively. The high demand for foreign capital by Chinese SOE's gave the regulatory experts in Hong Kong the opportunity to persuade Chinese authorities to adopt regulations similar those in Hong Kong (Yu, 2005). Share Issue Privatization creates a unique ownership structure in Chinese firms; the type of shares that China has is very different from Western countries. Their shares can be broadly classified as tradable and non-tradable. Tradable shares can only be traded by domestic investor. B and H shares can only be purchased by foreign investors; H shares are listed in Hong Kong. Typically, the remaining ownership shares are non-tradable, meaning that these state held and Legal Institution held shares are not available in the secondary market.

Arguably, efforts to further privatize firms are not extensive enough for real performance change because ownership control still resides with the Chinese government. The vast majority of firms formed from state owned enterprises continue to have state ownership. Non-tradable shares often represent two-thirds of the total and are held by government or its entitites. Indeed, a survey in 1999 reveals that among the 862 companies listed in China, state shares are held in 541 listed companies, accounting for a 63 % majority of listed companies. Thus, control of the firm can still be largely influenced by government, and entrepreneurial activities of private owners would have little or no influence on the prosperity of the company. This is not the intended result of privatization, which should provide owners with the incentive to make their firms are decreasing since listing. They suggest further privatization efforts by ownership reform to

reverse this negative trend. The need for further privatization is recognized and acknowledged by the Chinese government. Hence, Chinese firms are allowed to have government controlling stakes to be diluted by selling shares to private investors.

B. Background to Mergers and Acquisitions in China

Clearly, allowing control transfers amongst Chinese firms is a necessary but not sufficient condition to realize significant privatization and performance improvements; what is needed is a market for corporate control through mergers and acquisitions. Hence, a major reform is the creation of an M & A market which will rationalize, discipline, and give incentive to restructure Chinese industries to improve performance through market discipline and competition for capital. Like the experience of M & A in industrialized countries, an active M & A market facilitates the absorption of weaker firms who become targets for takeovers by stronger firms, and thereby, industry performance becomes stronger. Moreover, as M & A is an attractive means for foreign investors to gain access to the Chinese market, it provides the capital much needed by Chinese firms to expand. Not surprisingly, since China was admitted into the WTO in Dec 11th, 2001, M & A activities have grown dramatically.

This novel market of M & A crucially requires laws and regulations which are essentially borrowed from Western practices and adapted rapidly to China's evolving needs. In 1993, the state council enacted the Regulation on the administration of the Issuing and Trading of Shares (Yu, 2005). The Issuing and Trading of Shares provisions on takeovers are very similar to the Hong Kong Code on Takeovers and Mergers, which itself is based on the London City Code, an English-style common law system. Hence, the attraction of foreign capital to Chinese firms listed in Hong Kong shaped China's early merger and takeover regulations. A legal person shall make an offer of takeover to all the shareholders through cash payment within 45 working days after his or her's direct or indirect holding of outstanding common shares in a listed company reaches 30% of such company's total outstanding common shares according to China's Mandatory Purchase Provision (Yu, 2005). For fair treatment of Minority shareholders, all the conditions contained in a takeover offer shall apply to all the holders of the same type of shares. Hence, all shareholders should receive equal treatment when for instance an acquiring company pays a premium to a controlling shareholder. A disadvantage of this regulation is that it increases the cost of acquiring control of target companies (Yu, 2005) which can reduce the number of takeover offers. All in all, these M & A regulations demonstrate similarity because of their adoption from Western practice.

As a result of Share Issue Privatization, China's unique ownership structure creates a peculiar effect of making it impractical for an acquirer to successfully takeover a target by buying all its tradable shares; in fact, control transfers are further needed. This is because most listed companies are owned by state enterprises, which have a very large block of non-tradable shares in which total takeover of tradable shares is insufficient for control. In order to take ownership control of a target company, the acquirer needs to purchase enough of the non-tradable shares through control transfers. Such an acquiring company has to negotiate with a majority or block shareholder of the target, usually the government holder, and enter into a control transfer agreement (Yu, 2005). Although control transfers are given up by the state to private investors, recently, there are private investors selling controlling stakes, as studied by Chen et al. (2008).

Thus, in practicing takeovers, having to buy not only tradable shares, but also to obtain control transfers, is a costly obstacle to a well functioning market for corporate control.

Historically, the first control transfer took place in 1994. For example, in this first case, the acquiring company was Hengtong, and the target company was Shanghai Ling Guang Ltd. Among all the issued shares, Shanghai Construction Ltd held 55.3% of the shares on behalf of the state, while individual investors and legal person investors accounted for 32.6% and 11.9% of the shares, respectively. Before the transfer agreement, the market price of Ling Guang traded around 13 Yuan per share on the secondary market. After the agreement, Shanghai Construction Ltd. agreed to transfer 35.5% of the shares to Hengtong at a price of 4.3 Yuan on April 28, 1994. As this transfer was more than 30%, this triggered the Mandatory Purchase Provisions on takeovers which requires that minority shareholders be paid the same premium. To avoid the additional cost of this premium, Hengtong applied for an exemption from China Securities Regulatory Commission (CSRC). This example of Hengtong illustrates that the provision of "Mandatory Purchase Provisions" did not succeed. If the non-tradable shares can be traded at 4.3 Yuan, instead of 13 Yuan at market price, there is no fair treatment for minority shareholders under the Provision of Mandatory Purchase. The non-tradable shares are sold non-consistently with market prices compared to tradable shares.

In fact, equal treatment to minority shareholders continued to diminish in terms of being paid the same for their shares as the market. After the case of Hengtong, the "Mandatory Purchase Provisions" was modified to give the CSRC the discretion to exempt acquirers from following the "Mandatory Purchase Requirements" providing they acquire shares through a stock exchange (Yu, 2005). That is, the CSRC can grant exemption for the acquirer to pay the same premium to minority shareholders. By the end of 2000, all 121 negotiated takeovers had followed the pattern of Hengtong in that a waiver was obtained from the CSRC (Yu, 2005). As a result, Hengtong and the other cases who received waivers, the control block of state-owned shares was transferred at a price several times lower than the price of the shares traded on the stock market (Yu, 2005). Denying the same premium to minority shareholders may make M & A more attractive to acquirers and increase M & A activity in China; but, the tradeoff is that minority shareholders who invested in state-owned enterprise will not benefit by the "Mandatory Purchase Provision" as their counterparts do in United Kingdom.

In China, government participation in M & A deals is very high compared to North America where government approval becomes more involved if the merging companies create market monopoly issues. Similarly, the National People's Congress of China added an anti-monopoly law on August 30th, 2007. In China, multiple government agency approvals are required when state-owned shares are transferred, agencies such as the State Asset Administration Bureau, State Economic Restructuring Commission and the provincial government. Government agencies review each individual case, and the approval depends on the deal's characteristic, intended target of industry, scale of total investment, and target's background. Although M & A deals in China requires early pre-approval from many different government authorities, the final stage of the approval rests with Ministry of Commerce (MOFCOM), which acts as a gatekeeper for social and economic objectives of takeovers.

In sum, these salient features of the Chinese M & A context: adoption from Western laws, the peculiar effects of state ownership on takeover control, the unfair treatment of minority shareholders, and high government regulation, make the study of M & A in China compelling.

III. Hypotheses and Methodology

A. Sources of Gains from M & A and Announcement Returns

Privatization Motive for Takeovers

Privatization is the chief means by which formerly centrally planned economies transition towards market economies. It is also an important means to revive poorly run state owned enterprises by shifting ownership from government towards the private sector. The state believes that an important remedy to the chronic problem of the abject performance of many firms after listing is to enable a market for corporate control. This is preferable to the status quo, which allows a firm to fall into bankruptcy, or requires a firm to accept subsidies to remain afloat. State ownership in firms is blamed for poor performance, for resistance to change, and for high agency costs; hence, privatization is seen as the solution to turn around their financial weaknesses. Privatization is also sought to reduce the reliance of SOEs on financial support from the government. When the state owned enterprises achieve more financial autonomy, they can respond more quickly to market opportunities. Therefore, an important motivation for privatization is to attract capital investment flows into new stock markets in China and in Hong Kong (Yu, 2005).

Studying privatization has contributed greatly to the understanding of the state's role in corporate organizations, and it is benefited from insights on property rights theory and agency theory. Property rights theory (Alchian, 1961; Alchian and Demsetz, 1972) suggests that privatized firms would outperform firms with government ownership because control and income rights given to private firms enable them to maximize profit objectives. Agency cost theory (Jensen and Meckling, 1976) views that firm performance depends on the distribution of share ownership among managers and other outside owners. Agency theory supports privatization because it views those private owners can better monitor, discipline and reward their agent-managers to improve firm performance than government officials can. Evidence on the privatization experience has been positive; results from single country, single industry and multi country studies overwhelmingly show performance improvements following privatization (Wei and Varela, 2003; Megginson et al. 1994; Boubakri and Cosset, 1998). Specifically in China, privatization is conclusively beneficial to corporate performance (Ng et al., 2009; Wei and Varela, 2003, 2005 and Qi et al., 2000).

The Chinese state desires that a takeover market would realize synergies and efficiencies and to wean poor or insolvent state owned enterprises from their dependency on the state. This will further the benefits of privatization by allowing more private governance of such state owned firms. Given that privatization is beneficial to firm performance, and it is faciliated and expanded through takeovers, it is therefore beneficial to takeover performance. We propose that privatization motivates a takeover market to expand private governance of Chinese corporations that will realize the potential of well known efficiency and synergy benefits in takeovers. Firstly,

efficiency theories strongly support economic motivation for Chinese M & A in improving firm performance. M & A decreases costs by efficiency improvements and by increased economies of scale. That is, efficiencies are gained when a more efficient company acquires a less efficient company and thereby transfers efficiencies to the target company. Economies of scale are gained when firms merge their operations. The efficiency motivation has found empirical support in Western countries like the United States. Healy et al. (1992) conclude that merged firms showed significant abnormal improvements in asset productivity in their study of 50 largest US mergers (1979-1984). Ghosh (2001) examines 315 U.S. mergers during 1991-1995 and finds that cash flows increase significantly (3 percent per year) following acquisitions made with cash. Ghosh (2004), in his study of 2254 U.S. mergers during 1995-1999, finds that merging firms' long-run profitability increases with market share, and the increase in profitability primarily results from better asset efficiency. The acquirer or target can achieve more firm value by gaining complementary resources enabling it to make better use of existing underutilized resources or to provide diversification from a base of existing capabilities or strengths. Second, creating synergy is a well-known rationale for mergers and acquisitions which views that the fitting combination of two firms would create even greater value than each firm alone. Synergy gains can be argued for horizontal and vertical mergers, but are weakest for diversification mergers.

Third, takeovers can reduce agency problems by replacing incompetent and entrenched managers which in turn leads to improvements in firm performance. Agency theory views suggest that firm value may be lost through agency costs which include monitoring costs for the principal, bonding costs for the agent, and the residual loss in welfare when the decisions of the agent diverges from the interests of the share-owners (Jensen and Meckling, 1976). When Chinese firms first become listed, senior management and the board of directors are often incumbents before listing. Many owe their appointments to political patronage, seniority and service to the Chinese Communist Party. As these managers have long-lived relations with the initial controlling shareholder, government, they often become entrenched and complacent. Yet, getting managers to change from past managing practice is difficult as western types of managerial reward systems are largely absent, such as incentives systems and executive stock options (Firth et al., 2006). Hence, entrenchment and lack of incentives can lead to substantial agency problems between managers and the newly formed private share owners. Such problems can severely undercut profitability and efficiency of state-controlled listed firms. Allowing a poor firm to be taken over by a stronger, profitable firm would lead to replacement of existing management and inject superior management.

In sum, a functioning market for corporate control plays an important role in privatizing China's corporations to realize value creation. The synergy reason for takeovers implies that the returns to bidder and target firms will be positive and positively correlated with each other. The reducing agency costs reason for takeovers also implies that returns in takeovers will be positive. Thus, all in all, we expect that takeover announcements in China would have positive performance to both acquirers and target firms.

H1: *Given privatization benefit motivation, Chinese acquirers will have positive abnormal returns during takeover announcements.*

On the other hand, managerial motivations to enlarge and to entrench themselves through takeovers at a loss to shareholders can also exist in the Chinese setting. For example, in Chinese

society where politics and the corporation are inter-related, a manager can gain political currency and influence when he can enlarge his firm by acquiring another firm. Or, a manager of a privately governed firm can gain political currency by taking over a state governed firm. Such a manager is motivated by political gain for himself; hence, he is agency motivated, and he is not making takeovers to create value for the owners of the firm. Another example of agency cost is when managers are driven by self-interest to overpay for acquisitions, because they use shareholders' money to make manager-specific investments that will bind shareholders to themselves (Morck et al., 1990). Because of such entrenchment investments, the replacement of these managers is costly and managers might claim a higher rent from their shareholders (Shleifer and Vishny, 1989). If incumbent management acquires a target firm, it will try to increase the dependency of the bidder's shareholders on their specific skills and knowledge. The management might exploit this and increase perquisite consumption. Lastly, takeovers might be deployed to benefit managers of bidding firms rather than their shareholders (Morck et al., 1988). Indeed, severe agency problems in the acquirer in its various forms cause losses to its shareholders. Therefore, we propose this as a competing hypothesis:

H2: Given an agency motive to benefit managers over shareholders, Chinese acquirers will have have negative abnormal returns during takeover announcements.

We propose the privatization motive for takeovers would also benefit target companies, as well as acquirers. That is, more likely when privatization benefits can be imparted from a private governed acquirer to a state governed target. It is a stylized fact that target firms gain from takeovers given the vast empirical M & A literature. Comprehensive surveys of many studies on target gains in takeovers over the last few decades worldwide are found in Bruner (2002) and more recently in Martynova and Renneboog (2008). Targets tend to gain abnormal returns for the main reason that most targets would only agree to being takeover if there is a gain; other reasons include synergy, efficiency and even hubris on the part of acquirers. We agree that these same reasons would explain target gains in China, hence we propose:

H3: Chinese target firms will have positive abnormal returns during takeover announcements.

We test these three proposed hypotheses by examining takeover announcement effects on Chinese firm return performance. We use standard event study method to measure the abnormal returns around the announcements of the M & A deals. To measure return performance, three methods of estimating abnormal returns, market, market adjusted, and mean-adjusted model are presented. Daily stock returns are used to estimate the abnormal returns associated with the merger announcement (Brown and Warner, 1985). *Eventus* software is used to perform the event study. For each security we determine an estimation period and an event period. The estimation period starts at trading day -290 and ends at trading day -91 relative to the takeover event (t=0). The event period starts 20 trading days prior to the event day (t=0) through 20 trading days after the first announcement on the event day (t=0). For the takeover firms listed on the Shanghai Stock Exchange (SSE), we use the corresponding *Shanghai Stock Exchange Composite Index* as the benchmark index. For the takeover firms listed on the Shenzhen Stock Exchange (SZSE), we use the respective *Shenzhen Stock Exchange Composite Index* as the benchmark index. For robustness, we perform the event study using different benchmark index specifications; that is,

for both Shanghai and Shenzhen Exchange, we use both market value weighted and equally weighted versions of their composite indexes.

For each security *i*, we estimate different measures of abnormal returns $AR_{i,t}$.

Market model: $AR_{i,t} = R_{i,t} - (\hat{\alpha}_i + \hat{\beta}_i R_{m,t})$

where $\hat{\alpha}_i$ and $\hat{\beta}_i$ are OLS values from the estimation period prior to the event window (270 to 21 trading days before the first bid announcement).

To test the *null* hypothesis (H₀: *CAAR*=0) that the daily abnormal return over the event window is equal to zero, we calculate the cumulative abnormal returns (*CARs*) over the event interval $[t_1, t_2]$:

$$CAR_i = AR_{it_1} + \dots + AR_{it_2}$$
 [t₁, t₂] is the event period.

We employ the following test statistics for the event period $[t_1, t_2]$:

$$Z_{car} = \frac{\frac{1}{N} \sum_{i=1}^{N} CAR_i}{s(CAR)/\sqrt{N}} = \frac{CAAR}{s(CAR)/\sqrt{N}}$$
$$CAAR = \frac{1}{N} \sum_{i=1}^{N} CAR_i$$

where s(CAR) is computed cross-sectional on CAR_i .

Alternatively, to give robustness to this event study, we also use a market-adjusted approach (Brown and Warner, 1980). This approach can test directly the null hypothesis that average stock returns are the same as the market's return over the same event window. Abnormal returns are simply the difference between the stocks' actual returns and the markets' returns, which are defined as the benchmark indexes, as shown in the formula below:

$$AR_{it} = R_{it} - R_{mt}$$

where R_{it} denotes the actual stock return during month t, and R_{mt} the market return using the *Shenzhen Stock Exchange Composite Index* and *Shanghai Stock Exchange Composite Index* respectively. Abnormal returns generated by the market adjusted return are also standardized by dividing them by its standard error.

All in all, we propose two competing hypotheses of gains or losses to Chinese acquirers from takeovers; this reflects how the question of performance resulting from takeovers is an empirical issue. As well, we propose that Chinese targets would gain from takeovers. We described our use of standard event study in various configurations to test these hypotheses.

B. State Versus Private Governance and Announcement Returns

A salient unique feature of the Chinese M & A market is the effect of state and private governance on performance; we extend this known relationship to takeover performance. Privatization is necessary to improve state owned firms (Boycko et al., 1996; Shleifer, 1998), and it should benefit Chinese SOE's by improving incentives, by reducing agency costs and allocating property rights to managers and owners. Indeed, privatization benefits performance in Chinese firms is evidenced in the works of Ng et al. (2009), Qi et al. (2000), Wei and Varela (2003), Wei et al. (2005). More recently, the relationship between state governance and market performance is found to be a non-linear curve (Ng et al., 2009, Wei and Varela, 2003; Wei et al., 2005). Figure 1 illustrates the non-linear concave relationship between degree of privatization (measured as state ownership percent) and post-IPO performance. We expect that the non-linear state-performance relationship found in the IPO literature to drive shareholder return differences in Chinese takeover deals. We consider whether if differences in governance: state, mixed or privately governed acquirers and targets can influence takeover return performance. This may be explained by different motivations amongst these different governance structures which affect the monitoring and discipline exerted on the acquiring and target firm, and result in different acquirer gains and target premiums.

Figure 1. Relationship between State Ownership and Operating Performance of SOEs

This figure shows the post-IPO eight year median operating performance, ROA relative to the degree of private versus state ownership groups of SOEs. Private-state governance groups are classified in deciles from 10% state ownership to 90%-plus state owned. (Ng et al., 2009)



For example, takeovers by privately governed acquirers are likely to be more beneficial because of privatization benefits. As a firm has clear private governance, private owners often take a real role in managing the firm. As a result, the manager-owner agency conflicts are reduced. Private owners enjoy cash flow rights from investments, and they have the right incentives to press listed firms to improve performance. Large private controlling shareholders normally participate in the firm's management to effect change. These factors resolve incentive problems to resolve agency problems (Chen et al., 2008). This is supported by early research (Alchain, 1965; Boycko et al., 1996; Dewenter and Malatesta, 2001 and Shleifer, 1998), which concludes that privatization of SOEs is more effective when governance transfers to private hands. As Ng et al. (2009) suggest, more private control gives such firms more clarity towards profit objectives, rather than the conflicts in profit and social welfare objectives often faced by SOEs with more state control. There are, of course, differing views on efficacy transfers to SOEs from private investors. Qian (2001) warns that new controlling shareholders may siphon off firms assets by actions which expropriate value from the target firm. He argues that under weak law enforcement, minority shareholders are better protected when the state stays as the controlling shareholder. Thus, private controlling investors could be more likely to expropriate listed firms away from minority shareholders than government controlled firms. Hence, we think the reported benefits of private governance will also benefit takeover performance, benefit as proposed in this hypothesis:

H4: Private governance in firms is related to positive takeover performance.

State governance can confer takeover benefits, costs or no improvement to acquirer performance; hence this is an empirical issue. The U shaped relationship (see figure 1) between state governance and performance also implies that state governed firms are related to higher performance (Ng et al., 2009, Wei and Varela, 2003; Wei et al., 2005). Ng et al. (2009) propose that state controlled firms would also perform well because of the clear ownership and control argument. Strong governance, whether private or state, confers better performance. First, there is clear ownership and control rights for highly state owned firms as there would be for privatized firms. Second, state control also confers benefits to SOE's such as political connection and protection. Third, valuable and profitable SOE's are more likely to be retained by the state by choice. As prized strategic assets with state advantages, such firms could confer value as targets to an acquiring firm. Fourth, state-owned acquirers gain when they takeover their competitors, gain their market share and exploit benefits in buying valuable state firm assets. Indeed, they can gain oligopolistic rents. In fact, they may stand to gain more in performance as they are favored to better realize efficiency gains from takeovers than other firms. The stock market may view such takeovers favorably because it interprets such events as rationalizing towards a stronger and more profitable industry.

On the other hand, state governance could be costly in takeovers. When state owned acquirers takeover other firms, this exacerbates agency problems by further entrenching incumbent poor performing managers by enlarging their control. These managers are less motivated to bring about performance improvements. Rather worse performance ensues in the firm as it struggles with more internal bureaucracy and political or social objectives. Hence, the market may correctly view that state governed acquirers could not benefit from takeovers because any economic benefit would be lost due to organizational resistance and bureaucracy in such large firms. The most plausible outcome when state governed acquirers make takeovers is no performance change or improvement. The main reason is that the sheer difference in size between state governed acquirers, which usually are the largest Chinese corporations, and more privatized targets, tend to be far smaller. Indeed, this is noted by Eckbo and Thorburn (2000) who explain that U.S. acquirers are much bigger relative to their target companies; therefore, acquiring them makes little difference to increase abnormal returns. Hence, it is a measurement

problem. The measurement problem of disparate sizes of target and acquirer is examined by Jarrell (1983). He explains that, when an acquirer is many times larger than a target, a gain to the acquirer equal in size to the gain observed in the target can be lost in the noise of the acquirer's return variability.

Hence, given theoretical arguments for and against positive takeover performance for state governed acquirers, we view resolution of this question to be an empirical issue. We propose this state governance and performance null hypothesis:

H5: *State governance in firms is not related to takeover performance.*

Lastly, there remains our consideration of Chinese firms with mixed governance and their takeover performance. This governance group is found to have the poorest post-IPO performance compared to private and state governed firms (Ng et al., 2009). Mixed ownership structures create unclear governance of the company, which results in ambiguity of cash flow rights and conflicts between corporate versus state welfare objectives. This causes such firms to perform poorly. These firms could have the greatest opportunity to gain from takeovers as acquirer or target. Profound change is more possible with these firms versus private or state governed firms because they have pressure to improve, and they are not as organizationally resistant as state governed firms. The real opportunity to reform governance towards more clear ownership and control, whether state or private lies with mixed ownership firms. Hence, we propose that this group would benefit the most from takeovers as presented in this hypothesis:

H6: *Mixed governance in firms is related to positive takeover performance.*

Operationally, we define governance into three groups: State governed group is when percent of state owned shares is greater than 50%; Private governed group is when percent of tradable A shares is greater than 50%; and Mix governed is when both percent of state plus private owned shares is less than 50%.

In sum, there are economic reasons for creating an M & A market in China to resuscitate the ailing performance of its many state owned firms. These include reducing agency problems by changing entrenched management, and driving efficiencies by causing restructuring activities within industry. How takeovers will affect performance will depend on governance of the Chinese firm – be it state, private or mixed governed.

C. Diversification and Performance

An important takeover performance issue in the M & A literature is whether if managers benefit shareholders by making diversifying takeovers in other industries. Towards this question, the evidence is mixed depending mainly on time period. In reviewing the stream of literature on diversifying takeovers, Akbulut and Matsusaka (2003) shows that diversifying takeovers in the 1960s created significantly abnormal returns to bidder shareholders. In recent decades, the commonly held view is that diversifying deals are value destroying (Martynova and Renneboog, 2008; Akbulut and Matsusaka, 2003; Bruner, 2002). In theory, Jensen and Smith (1985) say that "a manager can make investment decisions (such as acquisitions) that help diversify the firm but may not be in the best interest of shareholders." In the case of Chinese takeovers, given the early

stage of China's post-IPO corporate development and needed restructuring, and given its unique socio-political-economic context, the degree to which diversification deals confer value remains an open-ended question. We view this as an empirical question that merits this study; we propose this hypothesis:

H7: Diversifying takeover deals are positively related to takeover performance.

D. Explanations to Chinese Takeover Performance

We examine for further factors on takeover performance of acquirers. We employ ordinary least squares regressions to test many of these potential relationships with announcement cumulative abnormal returns. We specify the following regression to test our main hypotheses with the expected signs above the coefficients of the independent variables:

Market Performance $= B_0 + B_1 \text{ STATE} + B_2 \text{ STATE} \text{ SQ} + B_3 \text{ RELATIVE SIZE} + B_3 \text{ LEGAL}$ $+/- + B_4 \text{ SIZE} + B_5 \text{ A-SHARES} + B_6 \text{ LEVERAGE} + B_6 \text{ ROA} + B_7 \text{ EXCHANGE} + B_8 \text{ PRIVATE} + B_9 \text{ IPO-AGE} + B_{10} \text{ PRE-WTO} + B_{11} \text{ DIVERSIFY} + B_{12} \text{ P/E} + B_{13} \text{ TOPQ4-FCF} + B_{14} \text{ 30DAYMOMENTUM}$ $+ + H + B_{15} \text{ M/B} \text{ EQUITY} + B_{16} \text{ DIVIDENDS} + B_{17} \text{ FOREIGN} + B_{18} \text{ VOLUME}$ $+ H + H + B_{19} \text{ RISK} + B_{20} \text{ 10DAYMEANRETURN} + \text{ Error}$

Table 1 summarizes the variables in this regression, gives their definition and their measurement. It also gives our hypothesized sign of the relationship between the variable and the dependant variable. A rationale is further given to justify our hypothesized sign, or to justify why the variable is included. While we attempt to provide sufficient detail to each of the twenty two variables in the table, we provide further explanation to some of the more important variables only. The firms' market performance is the dependant variable measured by cumulative average abnormal returns (CAR) based on various windows as estimated by event study methods discussed previously.

| | Variable Name | Measure | Predicted Sign | Rationale |
|-----|-----------------------|--|-------------------|---|
| | MARKET PERFORMANCE | CAR | | Dependant variable |
| | | | | |
| 1. | STATE | Percent of state owned shares | - | Privatization benefits |
| 2. | STATE SQ | Square of percent of state owned shares | + | Literature on state ownership and performance shows a curved relationship |
| 3. | RELATIVE SIZE | Deal size divided by total assets of bidder | - | Larger deals tend to hurt value |
| 4. | LEGAL | Percent of legal institution owned shares | + | Supportive evidence from IPO-performance literature |
| 5. | MIXED CONTROL | Are firms identified as having state plus tradable A shares of less than 50 percent | + | Mixed governed firms could gain the most from past poor performance from takeovers. |
| 6. | SIZE | Log of Total Assets | +/- | Typical control variable |
| 7. | A-SHARES | Percent of Tradable A shares owned | + | Privatization benefits from more private ownership |
| 8. | LEVERAGE | Debt to Asset ratio | - | Debt imposes a performance burden |
| 9. | ROA | Return on Assets calculated as Net Income / Total Assets | + | Profitable firms should confer synergistic benefits in takeovers |
| 10. | EXCHANGE | Dummy variable to identify Shanghai versus Shenzhen Exchange listed firms | +/- | Control variable |
| 11. | PRIVATE | Dummy variable to identify if a target is a private (not publicly traded) or not | + | Privatization benefits from ownership of a private firm |
| 12. | IPO-AGE | Number of years the takeover takes place since IPO listing | +/- | Control variable for age of the firm |
| 13. | PRE-WTO | Dummy variable to identify those deals which occurred before Dec 2001 when China is admitted to the World Trade Organization (WTO) | +/- | Control variable for large macro economic events |
| 14. | DIVERSIFY | Dummy variable to identify deals which are diversification takeovers | + | Benefitsfromdiversificationarefound in 1960s decade |

Table 1. Summary of variables examined to explain takeover performance

| 15. | P/E | Price to Earnings ratio annual | +/- | Control variable |
|-----|---------------------|---|-----|--|
| 16. | TOPQ4-FCF | Top quartile of free cash flow for firms | - | Free cash flow theory ⁷ |
| 17. | 30DAYMOMENTUM | 30 day mean daily return prior to announcement, | + | Momentum trading affects returns |
| 18. | M/B EQUITY | Market to book value of equity | + | Control variable for growth opportunities |
| 18. | DIVIDENDS | Dividends paid per share | + | Dividends are significantly related to asset pricing (Huang and Eun, 2007) |
| 20. | FOREIGN | Percent of Foreign shares owned | + | Foreign ownership signal quality and should confer benefits (Huang and Eun, 2007) |
| 21. | VOLUME | Logarithm of daily trading volume | + | Market trading action affects returns |
| 22. | RISK | Total variance of daily abnormal returns | + | Risk should be positively related to takeover returns |
| 23. | 10DAYMEAN RETURN | 10 day mean daily return prior to announcement | + | Near term momentum trading affects returns |

The first explanatory variable is the degree of state governance which we expect to be related to lower takeover performance. "High state ownership in the firm requires that the state hire agents to look after its own interest, and result in lower performance as government agents act in their own rather than that of the state's best interest" (Wei and Varela, 2003). High state ownership implies low private governance because it is the inverse of state ownership shares. Private governance should benefit Chinese SOE's by improving incentives, by reducing agency costs and allocating property rights to managers and owners. Therefore, if a negative relationship is found between state ownership and performance, then it implies that privatization is beneficial as it would be positively related to performance. Hence, we propose:

H8: State governance is negatively related to market performance.

The second explanatory variable is the square of the state percent ownership because we wish to test whether if a non-linear relationship exists between state governance and takeover performance as found in the literature. The relationship between state ownership and market performance is found to be a non-linear curve (Wei and Varela, 2003; Wei et al., 2005; Sun et al., 2002). However, these studies show opposing shapes of this curve – convex versus concave. In effect, the STATE² gives higher weightings in the regression to higher percentages of state shareholding. This study hypothesizes that this variable would be positively related to market performance. If STATE is negatively related, and STATE² is positively related, this creates a convex curve relationship. This means that state ownership is initially negatively related to

⁷ Free cash flow theory (Jensen, 1986) predicts that managers of firms with high free cash flow, especially with low growth opportunities, are likely to make value destroying mergers.

performance, but beyond an inflection point the relationship changes to become positive. The variable $STATE^2$ is simply calculated as the percentage of state shares squared.

Third, another salient feature of governance in Chinese firms is the common presence of legal institution shareholders. Like state shares, legal person shares are also non-tradable which again makes takeovers more difficult for an acquirer because it cannot simply buy all tradeable shares. LEGAL person shares are the ownership of shares from domestic institutions, which are partially owned by central or local governments. This is measured as the percentage of total shares owned by institutions. We propose that, as large block holders, having a positive relationship with SOE performance should reduce agency costs due to monitoring (Shleifer and Vishny, 1986). Moreover, such large institutions, often being large SOEs, can confer political backing and business connections beyond what state or government shareholders can. Indeed, legal ownership does appear to confer value to Chinese firms (Ng et al., 2009).

The most typical governance structure is mixed governance in Chinese firms which have a strong opportunity to change and improve from takeovers. MIXED CONTROL are firms identified to have mixed governance evidenced by no clear dominance of state, legal and private shares. It is identified with firms that have state plus private shares percent ownership to be less than 50 percent. We propose mixed governed to have a positive relationship with SOE takeover performance because mixed governed firms stand to benefit from takeovers as they have relatively poor post-IPO performance.

A-shares represent private governance. A-SHARES, is the ownership of tradable shares owned by private individuals. It is thus proposed to have a positive relationship with SOE takeover performance because it should be the source of privatization benefits as found in the IPOperformance stream of literature.

SIZE serves as an important control in determining SOE performance. Size is expected to be negatively related to performance because larger SOE's typically have more government bureaucracy, bigger agency costs, and more trouble adapting to a rapidly changing economic and political environment. SIZE is measured as the natural logarithm of total assets measured in Chinese Yuan currency.

Among deal characteristics and their relationship to return performance, we did not examine deal attitude and method of payment which are typically studied in the M & A literature. Deal differences in merger versus tender offer and cash versus stock payment are not apparent in the Chinese corporate setting. Indeed, in our sample, only 1% of all deals (1997-2005) are tender offers; in almost all years, 100% of the deals are mergers. Moreover, we found that only 1% of all deals (1997-2005) are paid stock; over 90% of our deals are paid with cash. For this reason, unlike the vast North American based studies in the M & A literature we have a unique opportunity to study M & A performance in which there is no endogeneity issue between method of acquisition and method of payment. Endogeneity issue exists in these studies because deal attitude and several methods of payment are intertwined. This Chinese sample allows us to examine purely merger type deals and cash payment and their effects on announcement performance.

However, we examine the relative deal value between the target and the acquirer. RELATIVE SIZE represents the deal value of the target relative to the acquirer (in total assets). We expect larger deals for targets to likely hurt shareholder value because such targets could be more difficult to exploit synergies from, or because acquiring managers may overpay for them for the reason of hubris (Roll, 1986).

Our eighth variable is LEVERAGE which captures the influence of capital structure in chinese firms on performance. Moreover, "the debt problem of SOE's is a big issue in China and has plagued SOE reform all along. From 1980 to 1994, the average debt ratio of SOE's jumped from 18.7 to 79%. In 1994, 27.6% of SOE's had total debts higher than their total asset values" (Sun et al. 2002). LEVERAGE is the total debt ratio (total assets divided by total debt) serving as a control for any possible leverage effect. Given the heavy financial risk and debt servicing costs that debt poses for SOE's in a rapidly changing environment, this study proposes that LEVERAGE will have a negative relationship with market performance.

ROA is proposed to be positively related to takeover performance because higher profitability should be associated with higher market performance as oftern observed in the takeover literature. ROA is calculated by dividing reported net income by total assets in Chinese Yuan.

EXCHANGE is included to control for systematic differences in market performance that may be attributed to where the Chinese firm is listed, Shanghai or Shenzhen Stock Exchange. Larger and more prestigious Chinese firms tend to be listed on the Shanghai Stock Exchange. Sun et al. (2002) examine the state ownership and performance relationship and find that qualitatively the results for both Shenzen and Shanghai Stock Exchange are the same. It is represented by a dummy variable of 1 if it is listed in Shanghai and 0 if it is listed in Shenzhen exchange.

Target characteristics appear to explain acquirer performance. PRIVATE represents private sellers or targets identified by a dummy variable. A growing number of studies, including Yuce and Ng (2005), report that a bid on a private target results in substantially higher CAARs to the acquirers (Martynova and Renneboog, 2008). Furthermore, we suggest that private targets would confer privatization benefits, such as owner entrepreneurism and manager ability towards the acquirer. Hence, we propose that PRIVATE would have a positive relationship with takeover performance.

Free cash flow theory (Jensen, 1986) predicts that managers of firms with high free cash flow, especially with low growth opportunities, are likely to make value destroying mergers. Hence, we include TOPQ4-FCF to represent those firms that are in the top quartile of free cash flow. Given the established evidence that free cash flow is associated with value-destroying acquisitions (Lang et al. 1991; Harford, 1999; Freund et al. 2003), we propose that it would be negatively related to takeover performance. We measure free cash flow as the net cash flow from operating activities plus interest minus capital expenditures. We then ranked the free cash flow measure by quartile; the top quartile of free cash flow firms are identified by a dummy variable as a high free cash flow firm.

Lastly, we included variables representing market trading action in explaining takeover performance. These include: 30DAYMOMENTUM, VOLUME, RISK, 10DAYMOMENTUM.

We examine these new variables as a result of our experience in finding weak correlations between firm characteristics and takeover performance, imperfections with Chinese asset pricing with takeover returns, and impressions from the media that the Chinese stock market is inefficient. Market imperfections with the Chinese stock market are found by Huang and Eun (2007). We also believe that speculation over M & A deals in the Chinese market would be significant in affecting takeover performance likely because of an inefficient M & A market and weak insider trading laws. Our findings of substantial run-ups in returns occurring as early as 90 days before announcement affirm our market trading notion. Such speculators could be momentum traders who are only concerned with stocks in the news. These stocks will be the high percentage and volume movers of the day. Additionally, momentum, known as price persistence, can be defined as the ratio of the price of a stock to some price index. We calculated 30 day momentum by estimating the beta or slope (this is the ratio) of the return of each stock against the market index return occurring from -31 to -60 days before announcement. A positive 30 day momentum, for example would mean the stock returns are still increasing. We expect a stock with positive momentum to be positively related to takeover gains and negative momentum to mean otherwise. In addition, we test a shorter and nearer momentum measure to the takeover announcement date as we expect greater market action as the M & A deal news occurs. The simple momentum 10DAYMEAN RETURN is the 10 day mean returns (-10,0) before the announcement date. We expect market traders to act on positive returns before announcement to buy more takeover firms' stocks. We propose that these momentum factors would be positively related to takeover performance because mass speculation buying will increase abnormal returns to takeover companies. We also look at VOLUME as we expect stock returns to be correlated with the number of shares bought and sold by investors in anticipation of merger gains. It is measured as the logarithm of volume trading on the day of announcement date, which we expect to be positively related to performance. Lastly, we examine RISK of the companies stock as we expect that there could be a risk return premium correlated with merger announcement returns. We measure RISK as the variance of 90 days of abnormal stock returns leading up to the announcement date.

In sum, in order to explain the abnormal return performance of Chinese takeovers, we examine an exhaustive set of 23 variables including firm characteristics such as governance, financials, profitability, age, deal characteristics, target characteristics and market trading variables.

IV. Sample Data

Our sample of takeover deals is obtained from the GTA Information Technology Company (GTA), China M & A and Asset Restructuring database between 1998 and 2005. We include both successful and unsuccessful offers subject to the following selection criteria:

- 1. Both the acquiring firm and target firms are traded on both China's stock exchanges, the Shanghai Stock Exchange and the Shenzhen Stock Exchange. Their price and return data are available over the 20 day period around the M & A announcement from the GTA's China Stock Market Trading Database (CSMAR).
- 2. The value of the transaction is one percent or less of the acquirers' assets.

- 3. The offer is announced between 1998 and 2005
- 4. If an acquirer makes multiple M & A deals, only the first announcement is included in the sample.
- 5. If the firm belongs to highly regulated industries, such as banking.

Table 2 provides a detailed account of how we reached our final sample from the initial population of M & A deals. We began with 9522 deals in the database population. After deleting the private deals, bidder has 2742 firms, and target has 2878 firms. We then screened out deals in certain industries: banking and financials, railroad, utilities, and real estate. Banking and financial industry are typically screened out in M & A studies. We chose to eliminate rail road and utilities as these are government owned and regulated. We also kept the first deals only by eliminating any subsequent multiple deals done by the same acquirer. Lastly, we screened out smaller deals by relative size (transaction value divided by total assets of the bidder). We eliminated acquiring firms involved in deals in which the transaction size is 1% or less. It may be argued that we do not eliminate small enough transactions with 1%. However, we find that when we apply a larger percentage of relative size screens like 5%, we lose about 70% of our sample. However, we do not apply the same relative transaction size screen to the targets. Our final sample size of eight years of M & A from 1998-2005 is 1343 acquiring firms and 2074 target firms.

| Original number of M & A Deals: | Bidder 9522 | Target 9522 |
|---|-----------------------|-----------------------|
| After collecting based on available stock prices: | | |
| Less Private | 6780 | 6644 |
| Sample size | 2742 | 2878 |
| Screen out by: | | |
| Industry | 114 | 147 |
| multiple deal | 514 | 657 |
| Relative transaction size | 771 | 0 |
| Total Screen out | 1399 | 804 |
| Final Sample | 1343 | 2074 |

Table 2. Sample Collection of Chinese M & A Deals

Our merger sample reveals interesting trends and characteristics about Chinese acquirers. Table 3a reports the annual breakdown of the acquirer sample as well as descriptive statistics on exchange, method of payment, financials, ownership structure, deal size, and deal type. We observe that the overall means and medians for these measures are close which means that there is negligible skewness in the distribution of these statistics.

As shown in Table 3a, the yearly number of acquirers has increased from 95 in 1998 to over 200 in 2004. The average yearly M & A deals is 149 per year with an average of 33 percent more deals with firms listed in the Shanghai Stock Exchange versus the Shenzhen Stock Exchange. Looking at payment methods, overwhelmingly Chinese deals are paid by cash, which averages 92% over stock deals. In observing the financials, the mean total assets is about 1.7 billion Yuan or 249 million USD. The mean shareholders equity is about 866 million Yuan or 127 million USD. As for revenue, the mean is 964 million Yuan or 141 million USD. Average net income is 738 million Yuan (108 million USD). The ownership structure of Chinese acquirers is, on average split fairly evenly between the major shareholder groups: 31 percent state owned, 37 percent privately owned, and 29 percent owned by legal institutions. Foreign ownership is very small with a mean of only one percent of total shares. When we observe deal or transaction figures, the mean transaction is about 150 million Yuan or 22 million USD, which is 10% of the total assets of the acquirer. Hence, we infer that typically the Chinese acquirer pays for relatively smaller companies. Lastly, we observe that practically 100% of all Chinese M & A are done as mergers and not as tender offers.

Additionally, our merger sample reveals interesting trends and characteristics about Chinese targets. Table 3b reports the annual breakdown of the target sample as well as descriptive statistics on exchange, method of payment, financials, ownership structure, deal size, and deal type. We observe that the overall means and medians for these measures are close, which means that there is negligible skewness in the distribution of these statistics.

As shown in Table 3b, the yearly number of targets has increased from 36 in 1998 to 351 in 2005. The average yearly M & A targets is 230 per year with an average of 55 percent more deals with firms listed in the Shanghai Stock Exchange versus the Shenzhen Stock Exchange. It appears that the market for takeovers is larger in Shanghai compared to Shenzhen Stock Exchange. Looking at payment methods, overwhelmingly Chinese deals are paid by cash for targets, which averages 86% over stock deals; about 13 percent of the deals would be by mix payment of stock and cash. In observing the financials, the mean total assets is about 2.2 billion Yuan or 322 million USD. The mean shareholders equity is about 940 million Yuan or 138 million USD. As for revenue, the mean is 1.49 billion Yuan or 218 million USD. Average net income is 63 million Yuan (9.4 million USD). Looking at governance, Chinese targets have ownership that is split fairly evenly between the major shareholder groups: 30 percent state owned, 37 percent privately owned, and 29 percent owned by legal institutions. Foreign ownership is very small with a mean of only three percent of total shares. Ownership structure of targets is practically the same as with acquiring firms. When we observe deal or transaction figures, the mean transaction is about 171 million Yuan or 25 million USD, which is a 14% bidder premium. Lastly, we observe that practically 100% of all Chinese M & A are done as mergers and not as tender offers. It seems that Chinese firms vastly prefer friendly acquisitions through mergers rather than tender offers, which are viewed as hostile.

Overall, we observe most notably from our large sample of Chinese mergers that Chinese M & A is active and growing; that governance structures are similar between acquirer and target, and that cash payment and mergers dominate.

V. Results and Discussion

A. Announcement Return Performance: Acquirers

We expect that merger announcements in China could have either positive or negative performance for acquirers. Hence, we proposed these competing hypotheses:

- **H1**: Given privatization benefit motivation, Chinese acquirers will have positive abnormal returns during takeover announcements.
- **H2:** Given an agency motive to benefit managers over shareholders, Chinese acquirers will have have negative abnormal returns during takeover announcements.

Table 4 reports the results of the merger performance of acquirers surrounding their announcement dates. The merger performance, measured as cumulative abnormal returns (CARs) is reported for a wide range of 12 event windows. These event windows range from short immediate windows from (-1, 0) to longer daily windows (-60, +60). The number of acquirer CARs in this sample is a minimum of 1254 to a maximum of 1319.

Result 1: Chinese acquirers gain positive abnormal returns from takeovers

Market model, equal weighted CARs are significant and positive for ten out of twelve event windows. The range of significant positive CARs is 5.65 to 15.38 percent depending on the window. Nine out of ten of these positive CARs are significant at the one percent level or less for the short immediate windows surrounding announcement (e.g. -3,0), as well as, longer windows before announcement (e.g. -60,0). Many of the significant CARs with over 10 percent returns appear to lead up to the day of announcement, and not afterwards. Looking at the market model, value weighted CARs show similar results; there are significant and positive CARs ranging from 8.09 to 13.92 percent for seven out of twelve event windows. Six out of seven of these positive CARs are significant at the 5 percent level or less. Results differ somewhat here compared with equal weighted CARs previously reported by minus 1 to 2 percent. The other small difference is more of the CARs greater than 10 percent cluster more closely to the shorter immediate windows (eg. -10, 0) before announcement date.

Results are even more robust when we examine performance from the market adjusted model. Here, equal weighted CARs show even stronger results than the market model; they are around four percent greater than market models. There are highly significant and positive CARs ranging from 7.13 to 19.59 percent for eleven out of twelve windows. Nine out of eleven of these CARs

are significant at the one percent level or less. Note that in both short immediate windows (eg. -1, 0) and in longer windows (eg. -60, +60, CAR = 11.93%), we still see significant and positive returns. Looking at the value weighted CARs, they show similarly strong results; there are significant and positive CARs ranging from 10.02 to 14.87 percent for nine out of twelve event windows. Nine out of nine of these positive CARs are significant at the 1 percent level or less. Results differ somewhat here compared with equal weighted CARs previously reported by minus six percent in the longer windows (e.g. -90, 0), and by minus three percent in the short immediate windows (e.g. -3, 0) near announcement. However, results for the equal and value weighted CARs are similar in terms of distribution of significant positive CARs across short and longer windows. It is not surprising that market-adjusted method CARs would be different. The market-adjusted method assumes that the returns of an individual firm would be the same as that of the market (Brown and Warner, 1980). It also assumes that an individual firm would have an average systematic risk beta of 1. M & A sample returns and betas are unlikely to meet this assumption; hence, it is likely that the abnormal returns generated will differ from the returns estimated by the market model.

For further robustness, we included results from the mean adjusted return model which also shows gains to acquirers. There are significant and positive CARs ranging from 5.81 to 10.95 percent for six out of twelve windows. Three CARs are significant at the five percent level or less. These results appear to cluster around only the immediate short term windows (e.g. -7, 0) near announcement date. Results differ here; CARs are smaller compared to those in the previous two models; yet, positive CARs prevail for acquirers.

Overall, it is clearly evident, given the consistency of the three models, in reporting highly positive and significant CARs that acquirers gain in mergers. The CARs reported do vary by method of estimation (and by equal versus value weighting of the benchmark index) with the highest performance found from the market adjusted model, and the lowest CARs found from the mean adjusted return model. Hence, we find support for our hypothesis that shareholders of Chinese acquirers gain from making mergers. Hence, we do not find our results consistent with an agency motivation for Chinese mergers.

One could question whether the merger performance we find could be too high as we report 11 to 19 percent gains to acquirers. After all, there are no M & A studies reporting such high gains to acquirers particularly in merger deals. While there are no comparable Chinese M & A takeover performance studies to compare this to, there is a study on control transfers in China that could corroborate with our high acquirer returns. Chen et al. (2008) report industry adjusted CARs of 17 to 18 percent for a (-60,0) event window. Our reported CARs for (-60,0) is 12 to 18 percent. Because they report an industry-adjusted CAR, their comparable CARs, when industry CARs are added back to the firm CARs would be substantially higher than ours. Hence, our reported performance is realistic.

Our performance results for Chinese acquirers stand out from the M & A literature. Most importantly, while this literature has abundantly supported synergy and agency motivations for mergers; in contrast, our results show that privatization as motivation for M & A creates shareholder value. Second, the majority of studies on US acquiring firms generally find non-significant gains or losses on takeover announcements (Martynova and Renneboog, 2008);

typically, gains or losses are only a few percent. By contrast, we report strong and significant double digit gains as high as nineteen percent to Chinese acquirers. Even in M & A studies reporting positive performance, such as European and Canadian studies (Yuce and Ng, 2005; Masse et al., 1990), these gains are much smaller than the CARs found in this study. This suggests that privatization is a powerful rationale for mergers and acquisitions because it creates shareholder wealth. Third, the other striking finding we found is the highly significant share price run-up prior to announcement. We find significant CARs (12.34%, market model, equal weighted) 90 days before announcement which suggests that the deals are anticipated, and result from rumors, information leakages and insider trading. Indeed, our price run-ups are much greater than those found in existing studies (Smith and Kim, 1994; Schwert, 1996) which were insignificant (0.7% and 1.6%) at one month leading to announcement. Therefore, this study's findings on the performance of Chinese acquirers contribute to the M & A literature because of the distinctive privatization motive, the outstanding acquirer merger performance and the unusually large share price run-up leading to merger announcements.

B. Announcement Return Performance: Targets

H3: Chinese target firms will have positive abnormal returns during takeover announcements.

No less remarkable than the acquirer performance results are the performance results of the Chinese targets. Table 5 reports the results of the merger performance of Chinese target firms surrounding their announcement dates. The merger performance, measured as cumulative abnormal returns (CARs) is reported for a wide range of 12 event windows. These event windows range from short immediate windows from (-1, 0) to longer daily windows (-60, +60). The number of target CARs in this sample is a minimum of 1938 to a maximum of 2051.

Result 2: Chinese targets gain positive abnormal returns from takeovers

Looking at Table 5, market model, equal weighted CARs are highly significant and double digit positive for all twelve event windows. The range of significant positive CARs is 8.16 to 19.71 percent depending on the window. Notably, all twelve of these positive CARs are significant at the one percent level or less. Significant CARs with over 10 percent returns appear at all windows whether near (e.g. -1, 0) or much before (e.g. -90, 0) the announcement date. Looking at value weighted CARs also show strong results; there are significant and positive CARs ranging from 8.18 to 16.46 percent for eight out of twelve event windows. All eight of these positive CARs are significant at the 1 percent level or less. Results differ a little here compared with equal weighted CARs previously reported by minus 2 to 3 percent.

Results are robust when we examine performance from the market adjusted model. Equal weighted CARs also show strong results similarly to the market model. There are highly significant and positive CARs ranging from 7.39 to 19.07 percent for eleven out of twelve

windows. Ten out of eleven of these CARs are significant at the five percent level or less. Note, that in both short immediate windows (e.g. -1, 0) and in longer windows (e.g. -90, 0, CAR = 7.39%), we still see significant and positive returns. Results are very similar here compared with the market model equal weighted CARs being within one percent less. Looking at the value weighted CARs show similarly strong results; there are significant and positive CARs ranging from 8.30 to 15.78 percent for seven out of twelve event windows. All seven of these positive CARs are significant at the 1 percent level or less. Results differ here compared with equal weighted CARs previously reported by about minus four percent in the short immediate windows (e.g. -3, 0) near announcement. Also, results for the value weighted CARs cluster more around the immediate shorter windows (e.g. -2, +1) near announcement.

For further robustness, we included results from the mean adjusted return model which also shows gains to targets. There are significant and positive CARs ranging from 7.53 to 12.69 percent for eight out of twelve windows. All eight CARs are significant at the one percent level or less. These results appear to cluster around only the immediate short term windows (e.g. -7, 0) near announcement date. Results differ here; CARs are smaller compared to those in the market model and the market adjusted model; yet, positive CARs prevail for targets.

Overall, it is clearly evident, given the consistency of the three models, in reporting highly positive and significant CARs that targets gain in mergers. The CARs reported do vary by method of estimation (and equal versus value weighting of the benchmark index) with the highest CARs found from the market model, and the lowest CARs found from the mean adjusted return model. Hence, we find support for our hypothesis that shareholders of Chinese targets gain from mergers.

Our performance results for Chinese targets are consistent with studies in the M & A literature. For example, the abnormal returns of target firms measured over a holding period of two weeks surrounding the announcement date is reported to range from 14% to 44% (Martynova and Renneboog, 2008). Our findings of abnormal returns for targets surrounding announcement range form 5.6 to 19.6 percent. Thus, abnormal returns to Chinese targets are consistent, albeit low, with the literature. Second, we also find that price run-ups occur with Chinese target firms as well. Six studies find that the price run-up premium is between 13.3% to 21.8% leading to the announcement date (Martynova and Renneboog, 2008). Similarly, we find significant and positive CARs of up to 13 percent 90 days before the announcement. At one month, our CARs are as high as 14 percent. Hence, in comparison, the price run-up premium we find is consistent, albeit on the low end of the reported range of six studies in the literature.

We believe our results for merger performance of Chinese firms to be robust because of the many model specifications we use. For all firms, acquirer and target, three methods are employed to estimate CARs, which include the market model, the market adjusted model, and the mean adjusted return model. Each model is used to estimate CARs using both a value weighted and an equal weighted benchmark index. Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs. Overall, there are six estimations of CARs for each of the 12 event windows in Table 4 and 5 to provide robustness to our findings.

C. Governance and Performance of Acquirers

We expect merger performance would be influenced by the unique and strong feature of Chinese state ownership. Given privatization and strong governance arguments, we proposed these hypotheses:

H4: Privately governance is related to positive takeover performance.

H5: State governance is not related to takeover performance.

H6: Mixed governance is positively related to positive takeover performance.

Table 6a reports merger performance of Chinese acquirers surrounding their announcement dates across different governance groups; state, private and mixed governance. Table 6a CARs are estimated using the market model, both equal and value weighted. Results using the market adjusted model are reported in Table 6b in the Appendix. The merger performance, measured as cumulative abnormal returns (CARs) is again reported for a wide range of 12 event windows. The number of acquirer CARs in this sample is a minimum of 1938 to a maximum of 2051.

Result 3: Privately governed acquirers gain positive abnormal returns from takeovers

Looking at Table 6a, panel on "Private Ownership" reports CARs for a minimum of 133 acquirers which are privately governed (tradeable A shares are greater than 50 percent). Both the equal weighted and the value weighted results show positive CARs in almost all event windows (except three). Significant and double digit positive CARs are reported for three out of twelve event windows. The range of significant positive CARs is 16.63 to 21.88 percent. These positive CARs are significant at the ten and five percent level or less; they appear to occur at the windows near (e.g. -1, 0) the announcement date. Hence, these gains to acquirers are consistent with our hypothesis that shareholders would gain in privately governed acquiring firms.

Result 4: State governed acquirers do not gain abnormal returns from takeovers

Looking at Table 6a, panel on "State Ownership" reports CARs for a minimum of 356 acquirers which are state governed (state shares are greater than 50 percent). Both the equal weighted and the value weighted results show positive CARs in almost all event windows. The range of these CARs is -3.10 to 19.44 percent. However, none of these are significant; thus, we are not able to reject our null hypothesis; that is, shareholders would not gain in state governed acquiring firms.

Result 5: Mixed governance acquirers gain positive abnormal returns from takeovers

Looking at Table 6a, panel on "Mixed Ownership" reports CARs for a minimum of 551 acquirers, the largest sub sample group of acquirers. These firms have mixed governance (tradeable A shares and State shares are less than 50 percent). Very strong gains from merger announcement are found for mixed governed firms. That is, significant and double digit positive CARs are reported for ten out of twelve event windows with the equally weighted results. The

range of significant positive CARs is 9.03 to 23.54 percent which is the greatest gain of the three groups of acquirers. Most of these positive CARs are significant at the one percent level or less. Both the equal weighted and the value weighted performance show similarly strong results in almost all event windows. These gains also appear in both the short immediate windows (e.g. - 1,0) near the announcement date as well as the longer windows (e.g. -90,0) much preceding the announcement date. Hence, these strong gains found for acquirers are consistent with our hypothesis that shareholders would gain in mixed governed acquiring firms.

Overall, the three sets of results consistently show that the degree of state or private governance influences takeover performance. Figures 2 and 3 illustrate this relationship, and they clearly show that higher privatization is related to better performance in acquirers. It is a positive relationship (state ownership is negatively related to CARs while its inverse, private ownership is positively related to CARs), and it is a non-linear, convex shape. This shape coincidentally is the opposite shape to the concave relationship on IPO-performance (see Figure 1). Consistently, state governed acquirers perform the worst. This suggests support for our idea that the privatization and IPO-performance relationship drives the privatization-takeover performance relationship. We further explain that privately governed acquirers can realize privatization benefits when they takeover companies. Indeed, state governed acquirers confer no privatization benefits when they takover companies.





Figure 3. Governance and Merger Performance, Acquirers Market Adjusted Return Model, Equal Weighted, Mean CARs



Our results appear to support each of our hypotheses that: state owned acquirers would not gain; private and mixed ownership acquirers would gain. We are surprised by the magnitude in gains found for mixed ownership firms, yet we can also understand that this poor performing group (Ng et al. 2009)⁸ has the most to gain from takeovers.

Our results on governance effects on takeover performance are robust eventhough CARs vary by method of estimation (and by equal versus value weighting) with the highest CARs found from the market adjusted model. In addition to CARs calculated using the market model in Table 6a, CARs are also calculated with the market adjusted model in Table 6b (see Appendix). These results generally yield the same conclusions about performance differences across governance groups. We acknowledge there are minor differences. In Table 6b, the "State Ownership" panel shows a mix of weakly significant and non-significant gains for acquirers. The "Mixed Ownership" panel shows even stronger merger gains than market model results in Table 6a with all event windows showing significant CARs ranging from 8.07 to 28.96 percent. The vast majority of these event window CARs are significant at the one percent level or less. In sum, we conclude that more private governance as found in private and mixed ownership firms, positively influences acquirer merger performance. This is consistent with our explanation of the motivation and benefits of privatization on takeovers.

⁸ In Ng et al. (2009) study on post-IPO performance, mixed control firms have the weakest market and operating performance relative to private and state controlled firms.

D. Governance and Performance of Targets

Like the acquirers, we expect takeover performance would also be influenced by private, mixed and state governance in target firms. Table 7a reports merger performance of Chinese targets surrounding their announcement dates across different governance groups; state, private and mixed governed. Here, CARs are similarly estimated using the market model, both equal and value weighted. Results using the market adjusted model are reported in Table 7b in the Appendix. The merger performance, measured as cumulative abnormal returns (CARs), is again reported for a wide range of 12 event windows. The number of acquirer CARs in this sample is a minimum of 1938 to a maximum of 2051.

Result 6: Privately governed targets do not gain abnormal returns from takeovers

Looking at Table 7a, panel on "Private Ownership" reports CARs for a minimum of 280 targets that are privately governed. Most of the event windows show non-significant positive CARs, and a few non-significant negative CARs. Positive and weakly significant CARs, about 12 percent, are found in only two windows (e.g. -1, 0) near the announcement date. These results suggest that privately governed targets do not gain. Indeed, looking at comparable results from the market adjusted return method in Table 7b, shows merger losses. Negative and significant CARs are reported here for four out of twelve event windows; the rest are not significant. Hence, taking stock of both sets of results, all in all, we judge that there are no gains to privately governed targets. While we had hypothesized earlier that private governance would benefit merger performance to both acquirers and targets, the evidence was surprising. In fact, there are opposite effects; private governance is positively related to acquirer performance, but it is not related to target performance.

Result 7: State governed targets gain positive abnormal returns from takeovers

Looking at Table 7a, panel on "State Ownership" reports CARs for a minimum of 516 targets that are state governed. In almost all event windows, positive and significant CARs are found in both the equal weighted and the value weighted results, except for two. The range of these significant and positive CARs is 7.94 to 23.37 percent. Nine of these double digit and positive CARs are significant at the five and one percent level; thus, we reject our null hypothesis that shareholders would not gain in state governed targets. We find mixed results; the evidence shows the effect of state governance on acquirer and target performance is different. State governance is not related to acquirer performance, but it is positively related to target performance.

Result 8: Mixed governed targets gain the most positive abnormal returns from takeovers

Looking at Table 7a, panel on "Mixed Ownership" reports CARs for a minimum of 728 targets that have mixed governance. This is the largest sub sample group of targets. Mixed governance target firms make very strong gains from merger announcements. In virtually all event windows, positive and significant CARs are shown in both the equal weighted and the value weighted

results, except for one. The range of significant positive CARs is 9.03 to 23.54 percent, which is the greatest gain of all three ownership groups. Most of these positive CARs are significant at the one percent level or less. These gains also appear in both the short immediate windows (e.g. -1,0) near the announcement date as well as the longer windows (e.g. -90,0) much preceding the announcement date. Hence, these strong gains found for targets are consistent with our hypothesis that shareholders would gain in mixed governance target firms.

Overall, our results consistently show that the degree of state versus private governance influences target performance in takeovers. Figures 4 and 5 illustrate this relationship. In order of highest to lowest performance, we see that state and mixed governance Chinese firms have the highest while private governance firms have the lowest performance. State ownership appears to have a positive non-linear, convex shaped relationship with performance. Conversely, this implies that higher privatization is related to poorer merger performance in targets. We deduce from these results that any benefit from privatization governance in targets become increasingly lost from takeovers. Conversely speaking, more state governance in targets become increasing gains from takeovers, including mixed governance. The important insight is that targets with state or mixed governance have more to gain from being taken over than private governed firms. In particular, mixed governed firms being the poorest performers, has the most to gain from takeovers. This insight is consistent with our expectation that buying a privately governed firm would not confer privatization benefits to more state governed bidders because they are often much bigger, more bureaucratic and difficult to change. Moreover, the takeover of state controlled firms would confer more benefits because these firms have political, strategic and market advantages. Intriguingly, the effects of this governance on target performance are the opposite of acquirer performance. Those results on acquirers demonstrate that privatization benefits acquirer performance.





Figure 5. Governance and Merger Performance, Targets Market Adjusted Return Model, Equal Weighted, Mean CARs



Our results on governance effects on takeover performance are robust eventhough CARs vary by method of estimation (and by equal versus value weighting) with the highest CARs found from the market adjusted model. In addition to CARs calculated using the market model in Table 7a, CARs are also calculated with the market adjusted model in Table 7b (see Appendix). It yields the same conclusions about performance differences across governance groups as Table 7a. We acknowledge there are differences. These results yield significant losses for privately governed targets larger than reported in Table 7a. Table 7b shows similarly strong gains to state owned target firms. Its results also agree with strong gains to mixed ownership target firms shown in Table 7a. The vast majority of these event window CARs are significant at the one percent level or less. In sum, we conclude that more private governance as found in private and mixed ownership firms, negatively influences target merger performance. This is consistent with our explanation that benefits of privatization are lost when private targets are taken over, and that state governed targets are valuable.

Does takeover performance based on governance truly differ from each other? Table 8 presents results on our analysis of performance differences based on degree of private, mixed or state governance. Table 8 CARs are estimated using the market model, both equal and value weighted. The merger performance, measured as cumulative abnormal returns (CARs), is reported for five event windows.

Result 9: Acquirers with different governance do not have different abnormal returns from takeovers.

Looking at Table 8, the acquirer panel presents the mean CARs for private governed firms to range from 2.89 to 16.81%. For state governed firms, CARs range from -4.20 to 6.45 percent, and for mixed control firms, CARs range from -3.46 to 15.77 percent. Analysis of differences between private, state and mixed control firms show no significant differences across all the event windows for acquirer groups. While absolute significant and positive CARs are found for each ownership group of acquirers earlier, their relative CAR differences are not significantly different.

Result 10: Targets with different governance have different abnormal returns from takeovers

Looking at Table 8, the target panel presents the mean CARs for private governed firms to range from -9.07 to 1.81%. For state governed firms, CARs range from 0.62 to 19.72 percent, and for mixed control firms, CARs range from 9.31 to 21.24 percent. Analysis of differences between private, state and mixed governance firms show significant differences across all the event windows. Specifically, results show state governed targets earn significantly higher CARs (at the five and one percent level) than privately governed targets by 17.09 to 26.03 percent. Mixed governed targets also earn significantly higher CARs (at the five and one percent level) than privately governed targets earn significantly higher CARs by 13 to 14 percent at the 10 percent level than state governed firms in one window. Hence, overall, these results further confirm that governance in Chinese firms influences merger performance.

Our results on Chinese governance and merger performance are striking in a few respects from the stream of M & A literature on governance. First, there is, to date, no examination of the governance of Chinese firms and merger and acquisition performance. Some governance characteristics, namely different types of ownership, and their performance effects are covered in this stream of literature. For example, large block holder ownership is beneficial to takeover performance, as they should reduce agency costs due to monitoring (Shleifer and Vishny, 1986). For example, target shareholder control and the presence of large outside block holders are shown to be positively related with target takeover performance during the friendly takeover environment of the 1990s (Moeller, 2005). Family ownership and its change is related to higher abnormal return performance in mergers compared to firms with low family ownership (Basu et al., 2009). This conclusion is consistent with the entrenchment of families at low levels of ownership and a better alignment of their interests with those of minority shareholders at high levels of ownership. Acquisitions and corporate governance changes are important determinants of post-privatization operating performance (D'Souza et al., 2007). In China, state controlled banks are found to perform poorly, and banks undergoing a foreign acquisition have better pretakeover performance (Lin and Zhang, 2009). Hence, our study on state and private governance effects on merger performance is new to the literature.

Specifically, our study into the question of state and private governance influence on merger performance reveals some notable findings. For one, the degree of private versus state governance yields differences in merger performance as found in the different abnormal returns between the private, mixed and state governed groups of firms. Intriguingly, the governance effect on merger performance greatly differs between the acquirer and the target. Although this relationship is similar in non-linear shape, they are opposite in direction. That is, acquirers have

a negative convex relationship (n shaped) between governance and performance in which state governed acquirers perform the worst. We offer a clear explanation; privately governed acquirers can realize privatization benefits when they takeover companies. Indeed, state governed acquirers confer no privatization benefits when they takover companies. On the other hand, targets have a positive convex relationship in which private governed targets perform the worst. We offer a clear explanation; privately governed targets lose their privatization benefits when they are taken over, particularly when the acquirer is state governed. Furthermore, state governed targets yield greater merger performance benefits because they are "prized" state assets having advantages such as market protection, political support, access to state loan capital and business connections. The mixed control group being the poorest performing in the China IPO literature (versus state and privately owned firms) has the most to gain in performance from mergers. We suggest this group gains because of changes away from a diffused ownership structure towards a stronger and more concentrated ownership structure, whether private or state This is consistent with Ng et als' (2009) conclusion that higher governance governed. concentration is ultimately related to better post-IPO performance of Chinese firms. Therefore, our results of finding the highest gains to mixed ownership control firms affirm this reason. In sum, our notable findings offer a new and grounded understanding of the different dynamic effects in which privatization and governance effects on takeover performance.

E. Diversification and Performance

H7: Diversifying takeover deals are positively related to takeover performance.

We expect takeover performance would be influenced by diversification deals as found in the merger experience of Western countries. Table 9 reports diversifying mergers and performance of Chinese acquirers and targets surrounding their announcement dates. Table 9 CARs are estimated using the market model, both equal and value weighted. The merger performance, measured as cumulative abnormal returns (CARs) is reported for four event windows: (-60,+1), (-2,+1), (-2,+2) and (-2,0). The number of targets involved in diversifying mergers is 345 and consolidating mergers is a minimum of 1676.

Result 11: Acquirers who make diversifying mergers gain positive CARs. Diversifying gains are significantly higher than merger gains within the same industry.

Looking at Table 9, panel on "Acquirer" reports the number of acquirers that made diversifying mergers is 179 and consolidating mergers is a minimum of 1127. Acquirers that made consolidating mergers or deals with targets in the same industry have CARs, which range from - 6.20 to 8.76 percent. By contrast, acquirers that made diversifying deals have CARs that range from 1.10 to 40.01 percent. The performance difference is substantial and significant. Diversifying acquirers significantly outperform consolidating acquirers by 25 to 31 percent in

windows (-2,+1), (-2,+2) and (-2,0). The differences are clearly significant, that is, less than five percent for all the reported windows. Hence, our consistent results lend support to our hypothesis that shareholders of acquiring firms would gain in diversifying mergers.

Result 12: Targets involved in diversifying mergers gain positive CARs. Diversifying gains are significantly higher than merger gains within the same industry.

Looking at Table 9, panel on "Target" reports the number of targets involved in diversifying mergers is 345 and consolidating mergers is a minimum of 1676. Targets involved in consolidating mergers have CARs that range from 1.96 to 17.14 percent. In contrast, targets involved in diversifying deals have CARs that range from 15.44 to 28.61 percent. The performance difference is substantial and significant. Diversifying targets significantly outperform consolidating targets by 11 to 19 percent. The differences are significant at less than ten, five and one percent level for all the reported windows. Hence, our consistent results lend support to our hypothesis that shareholders of target firms would gain in diversifying mergers.

For further robustness, we also included CARs calculated with the market adjusted model with both equal and value weighted indices in addition to the current results in Table 9. These results yield the same overall conclusions on diversifying benefits for acquirers and targets. This table is not included here; it is available upon request.

Our results with Chinese firms stand out from the M & A literature on diversification and performance. To date, we know of no other study that examines this issue with Chinese firms. Recent studies continue to support the stylized fact of diversification discounts in M & A since the 1990s. For example, corporate focus has a significantly positive relationship with long term stock returns. Indeed, focus decreasing mergers result in an average 18% loss in shareholder wealth (Megginson et al., 2004). Acquirers making unrelated acquisitions experience larger excess cash flow declines and valuation discounts than do acquirers who engage in related acquisitions (Doukas and Kan, 2004). Significantly positive announcement returns are found for US firms who acquired foreign companies. Announcement period returns are lower for firms that increase their global, industrial, or both forms of diversification (Freund et al., 2007). In contrast to the literature, our results for Chinese acquirers and targets show significantly higher abnormal returns for diversification mergers (versus consolidation mergers). As such, M & A in Chinese firms thus stands out.

F. Explanations to Chinese Takeover Performance, Acquirers

We expect takeover performance would be influenced by many determinants comprising the unique context of China's corporations. We examine most of the known variables relating to short term performance in the M & A literature plus several new ones particular to Chinese corporations.

Table 11 reports results of ordinary least squares (OLS) regression of explanations to merger performance of Chinese acquirers. The dependant variable, performance measured as CARs, are estimated using the market model and the market adjusted return model, both equal and value weighted. In total, eight regression results are shown. The merger performance, measured as cumulative abnormal returns (CARs) is reported for two event windows: (-90,0) and (-30,0). We

examine 23 independent variables to provide determination of acquirer performance. These are grouped into 5 categories: firm characteristics, firm financials, deal characteristics, other variables and market trading. Under the deal characteristics, we do not include known M & A variables such as tender or merger offer or method of payment. The reason is because virtually the whole sample is merger deals and cash payments. The eight regression model results reported are highly significant at less than one percent (and even 0.10 percent) level. The adjusted R-square ranges from 13.9 percent to 25.3 percent. The regression estimated coefficients are reported as standardized coefficients. The number of observations is 1043.

Result 13: Acquiring firm merger performance have significant determinants which include: mixed ownership structure, ROA performance, dividends, relative size of the target, deal occurred before China's acceptance into WTO, and market trading factors.

As hypothesized, we expect and find mixed control firms to gain the most from mergers. Looking at Table 11, mixed ownership structure is significant (at less than 10 percent level) and positively related to CARs. This implies Chinese firms belonging to the category of mixed governed firms is related to gains to acquiring shareholders. This finding is consistent with earlier results showing mixed governance acquirers make strong return gains during merger announcements.

We expected more profitable acquirers would gain from mergers; hence, we hypothesized that profitability would be positively related to merger performance. However, we find that stronger operating performance is related to lower merger performance. Operating performance, measured by the return on assets, is negative and significantly related to CARs at the ten and five percent level or less in both event windows. The significant coefficients range from -.109 to -.141. This contrary result suggests that profitable acquirers have more to lose from mergers.

We hypothesized that dividends are related to takeover gains for acquirers. Indeed, we find that dividends are positive and significantly related to CARs in both windows at less than ten, five and one percent levels. The significant coefficients are standardized which range from .054 to .074. This corroborates with the study of Huang and Eun (2007), who find that dividends are an important positive factor in asset pricing in the Chinese corporate market.

One M & A deal characteristic, relative size, is related to merger performance. Relative size represents the dollar size of the takeover deal scaled by the total assets of the acquirer. It is found to be positive and significantly related to event window (-30,0) CAR performance at less than ten, five and one percent level of significance. The significant coefficients are standardized, which range from .048 to .075. This result implies that larger deals or larger targets are related to better merger performance. This result stands out from some M & A studies on US samples, which find that larger targets are negatively related to performance.

One major country-corporate event is represented by the variable, "Pre WTO Admit" which represents takeover deals occurring prior to December 2001; the date in which China is officially admitted into the World Trade Organization. This event appears to be related to merger performance; we observe a significant relationship with CARs in event window (-90,0) at less than the ten, five and one percent level of significance. The significant coefficients are standardized which range from -.045 to .078. However, we observe conflicting signs on these coefficients; three models report negative coefficients while one model reports a positive coefficient. Results with the negative coefficient imply that takeover deals that took place before China joined the WTO are related to poorer acquirer performance.

Result 14: Three market trading factors, 30 day trading momentum, total firm return variance, and 10 day mean return, dominate other determinants in explaining the cross-section of merger returns.

Market trading variables are found to be especially important in explaining acquirer merger performance; in fact, they dominate firm, deal, and financial variables. Indeed, the 30 day momentum trading variable is highly significant at less than one percent level and positively related to acquirer CARs in event window (-90,0). The significant coefficients range from .359 to .426, which are amongst the highest coefficients in each model. Using a shorter and closer momentum trading variable, the mean 10 day return prior to announcement, reports even stronger results. The mean 10 day return is positively and significantly related at less than one percent to CARs for all eight analyses. The significant coefficients range from .193 to .426. Lastly, total firm return variance, appears to be negative and significantly related to CARs at the one percent or less level with coefficient of -.088 to -.094. This implies that higher risk is related to poorer merger performance. This corroborates with Huang and Eun (2007) who find a significantly negative relationship between firm-specific risk and expected returns. We do not find that liquidity, as measured by the pre-announcement volume of trading, to be related to returns as found by Huang and Eun (2007), in our case of acquirers. Overall, our strong, clear and consistent results show that merger performance is driven mainly by market trading factors. rather than firm and deal factors.

On the other hand, there are many firm and deal variables which do not appear to explain merger performance. Table 11 reports all other variables examined: exchange, state ownership, private ownership, foreign ownership, legal ownership, IPO age, size, debt to asset ratio, free cash flow, market to book value of equity, price earnings ratio, diversifying deal, private seller, and trading volume appear not to have significant relations to the merger performance of Chinese acquirers.

G. Explanations to Chinese Takeover Performance, Targets

For target firms, we examine most of the known variables relating to short term performance in the M & A literature plus several new ones particular to Chinese corporations. Table 12 reports results of ordinary least squares (OLS) regression of explanations to merger performance of Chinese targets. The dependant variable, CARs is estimated similarly as with the acquirers. Again, eight regression results are shown for two event windows, (-45,0) and (-30,0). We examine 20 independent variables to provide determination of target performance. These are grouped into 5 categories: firm characteristics, firm financials, deal characteristics, other variables and market trading. The number of observations is 1501. The eight regression model

results reported are highly significant at less than one percent (and even 0.10 percent) level. The adjusted R-square ranges from 24 percent to 39.7 percent.

Result 15: Target firm merger performance have significant determinants which include: foreign ownership, mixed ownership structure, leverage, ROA performance, dividends, deal occurred before China's acceptance into WTO, and 10 day mean return market trading factor.

We hypothesized that foreign ownership would benefit target performance in takeovers. On the contrary, we find foreign ownership is negative and significantly related to target merger performance. Looking at Table 12, coefficients are significant in one window (-30,0) at less than 10 percent level, and they range from -.037 to -.038. This result differs from our hypothesis that foreign ownership would be positively related to performance because foreign ownership signaled better performing targets. A plausible explanation is that news of merger is judged negatively for these target firms; the benefits of foreign ownership, that of signaling high quality, would be lost in a merger. Hence, it creates poorer merger performance for the target.

Again, mixed governance affects target performance. Looking at Table 12, mixed governance is significant (at less than 10 percent level) and positively related to CARs in one event window. This finding is consistent with earlier results showing mixed governance targets make strong return gains. This result is similarly found for acquirer performance.

We observe that leverage is significant and positively related to CARs in event window (-30,0). Coefficients, which are significant at less than ten and five percent level, range from .049 to .070. Hence, this result does not support our proposition that debt would be a burden to performance. Rather, this result suggests that debt in targets benefits merger performance. An explanation could be that the presence of debt indicates access to debt capital, and thus leverage would impute the benefit of debt capital into target premiums. Access to debt capital could be valuable in financing the restructuring operations implied by mergers.

Performance, as measured by both ROA and dividends paid, is related with target performance. ROA is positive and significantly related at less than ten and one percent level with CARs. The significant coefficients range from .047 to .078. Dividends are positive and significantly related to CARs in both event windows (-45,0) and (-30,0) at less than ten percent levels. The significant coefficients are standardized which range from .036 to .046. These results are consistent with our hypothesis that ROA and dividends are related to merger gains.

"Pre WTO Admit", a country-corporate event, is a variable which represents targets in deals that occurred before China's acceptance into the World Trade Organization. We observe significant relationship with CARs in both event windows (-45,0) and (-30,0) at less than the ten and five percent level of significance. The significant coefficients are standardized, which range from - .042 to .058. However, again we observe conflicting signs on these coefficients; two models report negative coefficients while one model reports a positive coefficient. We cannot make further evaluation given the mixed results.

Result 16: One market trading factor, 10 day mean return, dominates other determinants in explaining the cross-section of merger returns for targets.

This Market Trading variable, the 10 day mean return is found to be especially important in explaining target performance; in fact, it dominates firm, deal, and financial variables. The mean 10 day return is significant at less than one percent and positively related to CARs for all eight analyses. The significant coefficients range from .495 to .625. These strong, clear and consistent results show that the target performance of mergers is driven mainly by market trading explanations.

On the other hand, there are many firm and deal variables which do not appear to explain target performance. Table 12 reports all other variables which do not have significant relations to target performance: exchange, state ownership, private ownership, foreign ownership, legal ownership, IPO age, size, market to book value of equity, price earnings ratio, diversifying deal, relative size, private buyer, trading 30 days momentum, trading volume, and firm return variance.

For robustness of our acquirer and target results, we test various specifications and alternate measures in our multivariate regressions. We perform the OLS regressions using both market model and market adjusted model, value weighted and equally weighted CARs. This involves eight regression estimates for two event windows. Our results appear to show consistent significant relations with merger performance. Heteroschedasticity is not an issue affecting our results in all sixteen of our OLS regressions with acquirer and target CARs. Hence, we do not use White's correction for heteroschedasticity estimations. We replicate the results with White's correction, and the overall conclusions on significant relations remain the same. Table 10 in the Appendix shows results of our correlation analysis between all variables. Multi-collinearity is not an issue affecting our results because all the variables of interest have correlations below 0.50. Even when we change regression specifications by dropping ownership variables that show high negative correlations (expected because ownership proportions are inversely related to each other), the overall results on significant relations do not change. We find no multicollinearity issues between two momentum trading variables, the 30 day momentum and the 10 day mean return, which addresses concern that these could be replicating measures. Indeed, correlation between, the 30 day momentum trading and the 10 day mean return is low (p=.022) and is not significant. In sum, our results are robust given the consistency in conclusions with our extensive tests and address of method issues.

We discuss our conclusions about determinants of takeover performance in relation to the studies on Chinese asset pricing to provide some perspective. First, we find that dividend paying target firms to be significant and positively related to target premiums. Our result corroborates with Huang and Eun's (2007) finding that Chinese investors are willing to pay a significant premium for dividend paying stocks. Second, we find that acquirers' firm specific risk (measured as firm return variance) to be negatively related to takeover performance. This also corroborates with Huang and Eun's (2007) conclusion that the relationship between firm specific risk and expected returns is significantly negative. Third, while Huang and Eun (2007) find that firm size and market to book ratios, as with US takeover studies, to be systematically related to asset prices, we did not find these to be related to Chinese takeover returns. Indeed, the fact that most firm level and deal characteristics did not appear related to abnormal returns led us to examine market trading factors to explain performance. Thus and lastly, we find market trading variables to offer important explanatory power for M & A performance in the Chinese economy. Overall, we believe the lack of explanation power of firm and deal characteristics and the dominance of market trading explanations to takeover performance exemplifies weak market efficiency in the market for corporate control. This can be expected because of the newness of this market, and because the Chinese equity markets are concluded to be weak market efficient (Charles and Darné, 2009).

VI. Conclusion

China's modern enterprise reforms are intended to revitalize industry and create stronger and more vibrant companies that no longer depend on the state; of which, failure of these reforms are costly. Despite vigorous reforms and remarkable efforts resulting in a high growth economy, these aspirations are not met in the corporate sector. Corporate profitability and efficiency continue to decline (Chen et al., 2008). Indeed, this is costly to corporate China, as it has neither maximized the efficiency gains from corporatization nor reaped the full benefits of market integration (Yusuf and Nabeshima, 2006). Consequently, further loss beyond poor corporate performance is a weakening ability of China to sustain investor investment, attract foreign capital in globally competitive capital markets and thus, invest for future prosperity.

The continuation of high government governance is blamed for performance shortcomings. The state recognizes the obstacles implied by government ownership, and is seeking to increase privatization to this sector with reforms such as share issue privatization, control transfers and enabling a merger and acquisition market since 1994. In recent years, China is showing an active growing market for corporate control. The crucial question is whether if M & A can bring about the benefits of privatization to improve performance of China's corporate sector.

In this study, we examine announcement return performance of a large sample of Chinese mergers and acquisitions as well as explanations thereof. Our large sample of merger deals consists of 1343 acquirers and 2074 targets occurring between 1998 and 2005. Our sample, rather unique compared to those in the M & A literature, avoids endogeneity issues with deal hostility and method of payment. Second, given the benefits of privatization in the literature, we tested our hypothesis that private governance is related to better merger announcement performance. Moreover, we tested whether if strong governance, whether private or state, drives better performance consistent with the Chinese post IPO performance literature. Curiously, we examined whether if private versus state governance affects acquirer and target firm performance differently. Third, we tested whether if diversification deals outperform same industry merger deals. Lastly, we sought to identify determinants of Chinese merger performance by testing firm, deal, trading, and governance variables.

We present extensive results on the governance and performance of Chinese mergers including: acquirer and target performance, governance effects on performance, diversification effects, and explanations of merger performance. First, we conclude positive, significant and material abnormal returns gained by shareholders of both acquirer and target companies. We find this result supportive of our hypothesis of privatization benefits, as a new motive being behind takeovers.

Second, we find that this U-shaped privatization-performance relationship in the IPO literature does indeed influence shareholder return patterns in Chinese merger deals. That is, we consistently find non-linear convex or "n" shaped relationship between privatization (or private governance) and merger performance in both acquirer and targets.

Third, we conclude governance affects acquirers differently from targets. For example, private governed acquirers have positive merger performance. This result supports our hypothesis that private governance confers privatization benefits in merger deals. On the other hand, privately governed targets, likely acquired by firms with more state control, have no performance gains. We suggest here that, privatization benefits from the privately governed target are much less likely to benefit the acquirer due to its larger size, bureaucracy and inflexibility to improve. Certainly, the same pattern of governance affects state governed acquirers and targets differently. For example, state governed acquirers do not have positive merger performance. Consistent with the privatization benefit hypothesis, as expected, such state governed acquirers offer no privatization benefits in mergers. On the other hand, state governed targets have positive merger performance. We suggest that more privately governed acquirers can bestow privatization benefits to state governed targets resulting in merger gains. Moreover, state governed targets have inherent strategic value such as political, state company connections, and market protections to confer additional merger gains. We conclude that mixed governed firms have superb merger performance regardless of whether it is the acquirer or the target. This group of firms appears to have the greatest gain from merger perhaps because they have the best opportunity to change for stronger state or private governance. This conclusion corroborates with the post IPO performance literature, which finds strong governance in firms, whether private or state, is related to stronger performance.

Fourth, we conclude that Chinese firms gain when they make diversifying M & A deals. This is supportive of the benefits of diversification from mergers in the Chinese socio-economic-political context which is unique compared to Western M & A experience.

Lastly, when we examine for determinants of merger performance, we conclude that typical firm factors, deal factors, and governance appear to weakly explain performance. Surprisingly, market trading factors, namely momentum trading, explain substantially more merger performance. This conclusion corroborates with the weak market efficiency evaluation of Chinese equity markets by Charles and Darné (2009) as well as the finding of various market imperfections found by Huang and Eun (2007). Overall, a range of evidence in this paper generally supports our privatization benefit as motive hypothesis for takeovers.

Each of our conclusions is demonstrated to be robust to alternate variable and return measures and method specifications. In sum, we have extensive conclusions from our study on many governance and performance questions pertaining to China's merger and acquisition experience.

Our study's key implication is that we can improve Chinese corporate sector performance by reforming towards stronger firm governance through M & A. Emphatically, a well functioning

takeover market is a potent force to reform firms for stronger governance, whether private or state, and this is shown to improve performance for the merged firms. A clear example is our findings of high takeover performance of mixed governed Chinese firms; such firms seem to show great potential for substantial change and improvement post-merger. Moreover, the takeover of state governed firms not only radically furthers privatization in the Chinese corporate sector, it also benefits shareholders. Hence, to reform the weakest link in the corporate Chinese sector, is to enable a well functioning takeover market to reform governance in mixed and state governed firms towards stronger private governance.

Our study contributes to the emerging literature on China's corporate finance and reform mission in several ways. Primarily, our study offers a first study on mergers and acquisitions in China, which the extant literature has not examined. The pattern of substantial takeover gains to both acquirers and targets found in China do stand out compared to the return patterns of the main countries studied, the US and the UK. Second, this is an original study on the effect of private and state governance on the market for corporate control. Our results are supportive of the theory of privatization (Alchian (1965; Shleifer, 1998 and Green, 2004), which views that private ownership is superior to state ownership. Based on our results, transferring ownership control to private hands will enhance economic efficiency and increase corporate profitability. That is, enabling more privately governed firms to takeover or more state or mixed governed firms to be taken over, would best realize privatization benefits and takeover gains. Therefore, we suggest that China needs to further enable its active market for corporate control towards realizing more private governance. Third, this study contributes to the stream of literature on governance structure and takeover performance. To date, this stream has not considered state ownership's influence on performance, and not the unique ownership types and structure unique to China's state owned enterprises. In the special case of China, ownership structure and type of ownership matters a great deal to performance; whereas, the equivalent ownership does not exist in North American corporate settings. Lastly, this study proposes a privatization perspective as a motive for takeovers, uniquely found in the Chinese market. This is a fresh alternative to traditional perspectives on why managers make takeovers. Traditional views of value creation (synergy) or agency motives are extensively documented in the M & A literature. The privatization motive is new because it is initiated and sustained by government or state players unlike the managers who make these decisions in an Anglo-Saxon corporate context. Hence, this emerging area merits future study.

Overall, this study contributes to the corporate finance field through new salient questions which are emerging from the unique juncture of mergers and acquisitions, governance, privatization and Chinese corporations.

VII. References

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Appendices

Table 3a: Acquirer Sample Descriptive Statistics

This table presents yearly statistics for the sample of privatized Chinese involved in takevovers from 1997-2005 listed on the Shenzhen and Shanghai stock exchange. Financial, ownership, transaction cost, and deal statistics are presented including mean, median, and standard deviation figures. State, legal, tradable A, Foreign (B shares) ownership are measured as percentage fractions of total common shares. All reported dollar signs are in Chinese Yuan. The relative size is calculated by total transaction cost of each deal divided by the bidder's total asset.

| | | EXCH | IANGE | PAYN | MENT | FIN | ANCIALS - rej | port means by y | ear | OWNERSHI | P = each categor | y / total numl | per of shares | TRANSAC | CTION COST |
|--------------------|----------|-------------|-------------|--------|---------|------------------|---------------|-----------------|----------------|----------------|------------------|----------------|---------------|-------------|------------------|
| Year | Sample,n | Shanghai, n | Shenzhen, n | % cash | % stock | Total Assets(\$) | Equity(\$) | Revenue(\$) | Net Income(\$) | % of State own | % of A shares | % of Legal | % of foreign | Cost \$ | Relative Size, % |
| 1997 | 1 | 1 | 0 | 100% | 0% | 946,526,908 | 486,467,915 | 728,849,129 | 72,953,394 | N/A | N/A | N/A | N/A | 102,440,000 | 11% |
| 1998 | 95 | 54 | 41 | 94% | 0% | 731,922,356 | 417,405,934 | 387,266,320 | 49,412,732 | N/A | N/A | N/A | N/A | 74,088,123 | 12% |
| 1999 | 121 | 65 | 56 | 94% | 0% | 1,073,633,697 | 620,134,417 | 532,154,912 | 59,117,615 | N/A | N/A | N/A | N/A | 80,898,891 | 13% |
| 2000 | 160 | 89 | 71 | 96% | 0% | 1,403,658,592 | 772,613,612 | 743,117,026 | 79,537,092 | 23% | 34% | 37% | 2% | 187,401,127 | 12% |
| 2001 | 216 | 125 | 91 | 91% | 0% | 1,733,194,789 | 964,930,217 | 960,012,088 | 86,203,445 | 32% | 36% | 29% | 1% | 96,563,852 | 9% |
| 2002 | 179 | 110 | 69 | 65% | 1% | 2,287,959,788 | 1,219,584,059 | 1,317,507,249 | 91,357,677 | 33% | 37% | 27% | 2% | 159,913,698 | 8% |
| 2003 | 210 | 134 | 76 | 93% | 0% | 2,407,693,483 | 976,731,894 | 1,184,211,804 | 39,220,931 | 31% | 37% | 29% | 1% | 133,087,474 | 9% |
| 2004 | 208 | 136 | 72 | 96% | 0% | 2,499,266,810 | 1,284,072,277 | 1,580,557,663 | 101,569,916 | 33% | 38% | 27% | 1% | 298,865,925 | 8% |
| 2005 | 153 | 93 | 60 | 97% | 0% | 2,329,354,840 | 1,051,051,951 | 1,245,976,508 | 84,998,897 | 31% | 37% | 28% | 1% | 213,347,754 | 7% |
| Mean: | 149 | 90 | 60 | 92% | 0% | 1,712,579,029 | 865,888,031 | 964,405,855 | 73,819,078 | 31% | 37% | 29% | 1% | 149,622,983 | 10% |
| Median: | 160 | 93 | 69 | 94% | 0% | 1,733,194,789 | 964,930,217 | 960,012,088 | 79,537,092 | 32% | 37% | 29% | 1% | 133,087,474 | 9% |
| Standard Deviation | on: 69 | 44 | 26 | 10.37% | 0.19% | 695,177,004 | 310,352,846 | 396,283,717 | 20,610,531 | 3.59% | 1.29% | 3.81% | 0.44% | 73,833,286 | 2.22% |

Table 3b: Target Sample Descriptive Statistics

1343

807

Total sample:

536

This table presents yearly statistics for the sample of privatized Chinese involved in takevovers from 1997-2005 listed on the Shenzhen and Shanghai stock exchange. Financial, ownership, transaction cost, and deal statistics are presented including mean, median, and standard deviation figures. State, legal, tradable A, Foreign (B shares) ownership are measured as percentage fractions of total common shares. All reported dollar signs are in Chinese Yuan. The bidder premium is calculated by total transaction cost of each deal divided by the targets total asset.

| | | EXCH | ANGE | PAY | MENT | FIN | ANCIALS - rej | port means by y | ear | OWNERSHI | P = each categor | y / total num | ber of shares | TRANSAC | TION COST |
|---------------------|----------|-------------|-------------|--------|--------|------------------|---------------|-----------------|----------------|---------------|------------------|---------------|---------------|---------------------|------------------|
| Year | Sample n | Shanghai, n | Shenzhen, n | % cash | %stock | Total Assets(\$) | Equity(\$) | Revenue(\$) | Net Income(\$) | % State owned | % of A shares | % of Legal | % of B shares | Transaction Cost(\$ | Bidder Premium % |
| 1997 | 1 | 0 | 1 | 100% | 0% | 1,159,997,187 | 513,780,446 | 594,231,900 | 65,678,719 | N/A | N/A | N/A | N/A | 118,891,289 | 10% |
| 1998 | 36 | 21 | 15 | 75% | 0% | 1,335,706,397 | 536,634,387 | 730,813,987 | 48,661,160 | N/A | N/A | N/A | N/A | 79,167,651 | 13% |
| 1999 | 156 | 85 | 71 | 85% | 1% | 1,027,256,970 | 506,244,749 | 460,406,086 | 29,338,295 | N/A | N/A | N/A | N/A | 80,794,636 | 9% |
| 2000 | 232 | 131 | 101 | 84% | 0% | 1,385,246,472 | 604,560,631 | 677,842,062 | 44,868,197 | 27% | 34% | 32% | 3% | 125,789,903 | 10% |
| 2001 | 269 | 151 | 84 | 86% | 0% | 1,539,209,940 | 729,905,029 | 863,437,662 | 34,721,945 | 31% | 36% | 29% | 2% | 368,611,835 | 24% |
| 2002 | 296 | 182 | 114 | 89% | 0% | 3,189,657,934 | 1,336,119,937 | 2,027,762,321 | 70,943,293 | 31% | 37% | 29% | 2% | 61,683,720 | 6% |
| 2003 | 337 | 209 | 128 | 86% | 0% | 1,967,984,644 | 895,137,102 | 1,044,961,190 | 29,195,626 | 30% | 38% | 29% | 2% | 85,840,456 | 6% |
| 2004 | 396 | 252 | 144 | 83% | 0% | 4,247,005,430 | 1,779,665,389 | 3,667,450,629 | 132,656,766 | 30% | 38% | 29% | 2% | 61,290,989 | 4% |
| 2005 | 351 | 212 | 139 | 85% | 4% | 3,824,642,668 | 1,559,075,774 | 3,346,522,346 | 118,382,680 | 31% | 38% | 27% | 3% | 562,371,902 | 39% |
| Mean: | 230 | 138 | 89 | 86% | 1% | 2,186,300,849 | 940,124,827 | 1,490,380,909 | 63,827,409 | 30% | 37% | 29% | 3% | 171,604,709 | 14% |
| Median: | 269 | 151 | 101 | 85% | 0% | 1,539,209,940 | 729,905,029 | 863,437,662 | 48,661,160 | 30% | 37% | 29% | 2% | 85,840,456 | 10% |
| Standard Deviation: | 139 | 87 | 52 | 6.52% | 1.29% | 1,233,169,813 | 491,984,036 | 1,233,198,150 | 38,067,826 | 1.61% | 1.74% | 1.79% | 0.38% | 174,923,853 | 11.07% |
| Total sample: | 2074 | 1243 | 797 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

Table 4: Acquirer Cumulative Abnormal Return (CAR) Effects of Takeover Announcements

This table reports the cumulative abnormal returns (CARs) surrounding takeover announcements in China for acquirer firms. The CARs are estimated using three methods: market model, market adjusted model and mean adjusted return model. Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs. Significance is reported at the 10,5 and 1 percent level respectively as ***,**,*.

| | | Ma | rket Model CA | Rs | | М | arket Adjus | ted Model CARs | | Mean Adjusted Ret | turn Model CARs |
|-----------|------|----------------|---------------|----------------|-------------|----------------|-------------|----------------|---------|-------------------|-----------------|
| Windows | Ν | Equal Weighted | Pr > t | Value Weighted | $\Pr > t $ | Equal Weighted | Pr > t | Value Weighted | Pr > t | Equal Weighted | $\Pr > t $ |
| (-90,0) | 1317 | 12.34% *** | 0.0027 | 5.80% | 0.1668 | 19.59% *** | <.0001 | 12.68% *** | 0.0015 | -1.20% | 0.7956 |
| (-70,0) | 1316 | 13.38% *** | 0.0013 | 8.09% * | 0.0587 | 19.44% *** | <.0001 | 13.46% *** | 0.0012 | 3.99% | 0.4129 |
| (-60,0) | 1317 | 12.41% *** | 0.0032 | 6.83% | 0.1157 | 18.38% *** | <.0001 | 12.07% *** | 0.0045 | 3.42% | 0.4928 |
| (-30,0) | 1317 | 13.43% *** | 0.0019 | 9.96% ** | 0.0247 | 16.62% *** | 0.0001 | 12.79% *** | 0.0037 | 7.62% * | 0.0806 |
| (-10,0) | 1319 | 15.38% *** | <.0001 | 13.92% *** | <.0001 | 17.31% *** | <.0001 | 14.87% *** | <.0001 | 10.95% *** | 0.0004 |
| (-7,0) | 1317 | 14.19% *** | <.0001 | 12.45% *** | 0.0001 | 16.31% *** | <.0001 | 13.66% *** | <.0001 | 8.94% *** | 0.0044 |
| (-3,0) | 1311 | 13.20% *** | <.0001 | 10.88% *** | 0.001 | 14.46% *** | <.0001 | 11.57% *** | 0.0004 | 6.78% ** | 0.034 |
| (-2,+1) | 1309 | 5.65% * | 0.1047 | 2.27% | 0.5177 | 7.13% ** | 0.0387 | 3.21% | 0.3558 | 2.29% | 0.4929 |
| (-1,0) | 1254 | 11.47% *** | 0.0009 | 9.36% *** | 0.0068 | 12.20% *** | 0.0004 | 10.02% *** | 0.0034 | 5.81% * | 0.0714 |
| (-60,+60) | 1317 | 2.79% | 0.4774 | -6.10% | 0.1249 | 11.93% *** | 0.0005 | 1.44% | 0.6889 | -8.20% * | 0.0597 |
| (-2,0) | 1309 | 13.02% *** | 0.0002 | 10.25% *** | 0.0036 | 13.97% *** | <.0001 | 10.86% *** | 0.0019 | 7.24% ** | 0.0297 |
| (-1,+1) | 1254 | 3.20% | 0.3483 | 0.46% | 0.8953 | 4.51% | 0.1805 | 1.37% | 0.6896 | 0.67% | 0.8355 |
| | | | | | | | V | ٥ţ | | 0 | 0 |

Table 5: Target Cumulative Abnormal Return (CAR) Effects of Takeover Announcements

This table reports the cumulative abnormal returns (CARs) surrounding takeover announcements in China for target firms. The CARs are estimated using three methods: market model, market adjusted model and mean adjusted return model. Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs. Significance is reported at the 10,5 and 1 percent level respectively as ***,**,*

| | | Ma | rket Model CA | ARs | | Ma | arket Adjust | ed Model CARs | | Mean Adjusted Return | Model CARs |
|-----------|------|----------------|---------------|----------------|-------------|----------------|--------------|----------------|-------------|----------------------|-------------|
| Windows | N | Equal Weighted | $\Pr > t $ | Value Weighted | $\Pr > t $ | Equal Weighted | Pr > t | Value Weighted | $\Pr > t $ | Equal Weighted | $\Pr > t $ |
| (-90,0) | 2043 | 13.11% *** | 0.0001 | 5.51% | 0.1089 | 7.39% ** | 0.0211 | -4.00% | 0.2239 | 1.91% | 0.5865 |
| (-70,0) | 2043 | 12.57% *** | 0.0005 | 5.48% | 0.1279 | 7.56% ** | 0.0274 | -3.00% | 0.3877 | 1.32% | 0.7141 |
| (-60,0) | 2042 | 12.25% *** | 0.001 | 5.11% | 0.1691 | 7.61% ** | 0.0337 | -2.80% | 0.4431 | 1.46% | 0.6866 |
| (-30,0) | 2037 | 13.90% *** | <.0001 | 8.18% *** | 0.005 | 11.06% *** | <.0001 | 2.86% | 0.3174 | 8.32% *** | 0.0036 |
| (-10,0) | 2048 | 16.70% *** | <.0001 | 14.08% *** | <.0001 | 15.61% *** | <.0001 | 11.35% *** | <.0001 | 12.09% *** | <.0001 |
| (-7,0) | 2051 | 18.39% *** | <.0001 | 15.56% *** | <.0001 | 17.11% *** | <.0001 | 13.11% *** | <.0001 | 12.12% *** | <.0001 |
| (-3,0) | 2046 | 19.71% *** | <.0001 | 16.13% *** | <.0001 | 19.07% *** | <.0001 | 14.76% *** | <.0001 | 12.69% *** | <.0001 |
| (-2,+1) | 2023 | 13.74% *** | <.0001 | 10.52% *** | 0.0001 | 13.09% *** | <.0001 | 9.13% *** | 0.0007 | 9.12% *** | 0.0005 |
| (-1,0) | 1938 | 18.06% *** | <.0001 | 16.46% *** | <.0001 | 18.17% *** | <.0001 | 15.78% *** | <.0001 | 11.87% *** | <.0001 |
| (-60,+60) | 2042 | 8.16% *** | 0.012 | -0.90% | 0.774 | 2.00% | 0.488 | -12.20% *** | <.0001 | -1.90% | 0.5552 |
| (-2,0) | 2023 | 19.16% *** | <.0001 | 16.26% *** | <.0001 | 18.41% *** | <.0001 | 14.82% *** | <.0001 | 12.13% *** | <.0001 |
| (-1,+1) | 1938 | 11.22% *** | <.0001 | 8.98% *** | 0.0015 | 11.33% *** | <.0001 | 8.30% *** | 0.003 | 7.53% *** | 0.0041 |
| | | | | | | | | 0; | | 20 | |

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Table 6a: Acquirer and Ownership Structure Effects on Takeover Performance, Market Model

This table reports the cumulative abnormal returns (CARs) surrounding takeover announcements in China for acquirer firms across three ownership groups. The CARs are estimated using market model. Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs.

Ownership is divided into three groups: State (when state % shares is greater than 50%), Private (when private % shares is greater than 50%) and Mix Control (when state % plus private % shares is less than 50%) ownership.

| Significance is reported at the | 10,5 and 1 percent lev | el respectively as ***,**,*. |
|---------------------------------|------------------------|------------------------------|
| | | |

| | | | | State Own | nership | | | | |] | Private O | wnership | | |
|-----------|-----|----------------|--------|-----------|----------------|--------|---------|-----|----------------|--------|-----------|----------------|--------|---------|
| Windows | Ν | Equal Weighted | T-stat | Pr > t | Value Weighted | T-stat | Pr > t | Ν | Equal Weighted | T-stat | Pr > t | Value Weighted | T-stat | Pr > t |
| (-80,0) | 371 | 7.91% | 0.93 | 0.354 | 2.55% | 0.29 | 0.773 | 141 | 6.86% | 0.79 | 0.429 | -1.20% | -0.14 | 0.889 |
| (-70,0) | 366 | 8.77% | 0.96 | 0.337 | 4.29% | 0.45 | 0.651 | 142 | 11.45% | 1.34 | 0.181 | 2.89% | 0.34 | 0.735 |
| (-60,0) | 369 | 8.37% | 0.87 | 0.385 | 3.53% | 0.35 | 0.724 | 142 | 12.71% | 1.46 | 0.147 | 3.80% | 0.44 | 0.664 |
| (-30,0) | 369 | 19.44% | 1.6 | 0.111 | 16.56% | 1.32 | 0.189 | 141 | 6.01% | 0.72 | 0.472 | -3.40% | -0.4 | 0.688 |
| (-10,0) | 369 | 4.18% | 0.79 | 0.428 | 6.63% | 1.2 | 0.230 | 139 | 16.81% | 1.94 | 0.055 | 13.84% | 1.46 | 0.146 |
| (-7,0) | 367 | 4.37% | 0.77 | 0.444 | 5.82% | 0.98 | 0.329 | 140 | 10.28% | 1.14 | 0.254 | 6.93% | 0.75 | 0.455 |
| (-3,0) | 367 | 7.82% | 1.34 | 0.181 | 7.31% | 1.23 | 0.221 | 139 | 18.63% ** | 2.14 | 0.034 | 16.63% * | 1.91 | 0.058 |
| (-2,+1) | 364 | 3.01% | 0.51 | 0.607 | -0.50% | -0.08 | 0.940 | 137 | 10.32% | 1.18 | 0.239 | 9.36% | 1.06 | 0.290 |
| (-1,0) | 356 | 5.56% | 0.94 | 0.348 | 6.03% | 1 | 0.318 | 133 | 21.88% ** | 2.26 | 0.025 | 18.21% * | 1.88 | 0.063 |
| (-60,+60) | 369 | 5.59% | 0.66 | 0.507 | -3.10% | -0.36 | 0.720 | 142 | 1.12% | 0.12 | 0.903 | -8.30% | -0.89 | 0.372 |
| (-2,0) | 364 | 5.96% | 0.99 | 0.324 | 3.97% | 0.66 | 0.512 | 137 | 20.88% ** | 2.31 | 0.022 | 19.95% ** | 2.17 | 0.032 |
| (-1,+1) | 356 | 2.06% | 0.35 | 0.723 | 0.60% | 0.1 | 0.924 | 133 | 9.27% | 1 | 0.319 | 6.08% | 0.66 | 0.512 |

Table 6b: Acquirer and Ownership Structure Effects on Takeover Performance, Market Adjusted Return Model

This table reports the cumulative abnormal returns (CARs) surrounding takeover announcements in China for target firms. The CARs are estimated using market adjusted return model.

Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs.

Ownership is divided into three groups: State (when state % shares is greater than 50%), Private (when private % shares is greater than 50%) and Mix Control (when state % plus private % shares is less than 50%) ownership. Significance is reported at the 10,5 and 1 percent level respectively as ***,**.

| | | | | State Ow | nership | | | | | Priva | te Owne | rship | | |
|-----------|-----|----------------|--------|----------|----------------|--------|---------|-----|----------------|--------|---------|----------------|--------|---------|
| Windows | N | Equal Weighted | T-stat | Pr > t | Value Weighted | T-stat | Pr > t | Ν | Equal Weighted | T-stat | Pr > t | Value Weighted | T-stat | Pr > t |
| (-90,0) | 367 | 15.54% * | 1.92 | 0.055 | 3.31% | 0.39 | 0.700 | 141 | -2.30% | -0.31 | 0.761 | -12.60% | -1.61 | 0.110 |
| (-70,0) | 366 | 17.16% * | 1.91 | 0.057 | 6.47% | 0.68 | 0.494 | 142 | 5.89% | 0.75 | 0.455 | -4.90% | -0.6 | 0.550 |
| (-60,0) | 369 | 15.70% * | 1.64 | 0.102 | 4.77% | 0.47 | 0.636 | 142 | 8.06% | 1.02 | 0.311 | -2.70% | -0.33 | 0.740 |
| (-30,0) | 369 | 23.11% * | 1.88 | 0.060 | 15.11% | 1.19 | 0.235 | 141 | 2.70% | 0.33 | 0.739 | -7.10% | -0.85 | 0.397 |
| (-10,0) | 369 | 7.51% | 1.46 | 0.145 | 5.69% | 1.03 | 0.305 | 139 | 13.74% | 1.59 | 0.114 | 9.71% | 1.04 | 0.302 |
| (-7,0) | 367 | 8.12% | 1.42 | 0.157 | 6.00% | 1 | 0.317 | 140 | 8.31% | 0.91 | 0.362 | 3.25% | 0.35 | 0.729 |
| (-3,0) | 367 | 9.59% * | 1.67 | 0.096 | 6.25% | 1.05 | 0.292 | 139 | 17.36% ** | 1.99 | 0.049 | 15.21% * | 1.76 | 0.081 |
| (-2,+1) | 364 | 4.74% | 0.82 | 0.414 | -0.50% | -0.08 | 0.938 | 137 | 8.89% | 1.03 | 0.306 | 6.75% | 0.78 | 0.437 |
| (-1,0) | 356 | 6.84% | 1.18 | 0.239 | 6.36% | 1.07 | 0.285 | 133 | 19.86% ** | 2.04 | 0.044 | 15.44% | 1.58 | 0.115 |
| (-60,+60) | 369 | 15.20% * | 1.92 | 0.056 | -2.10% | -0.25 | 0.801 | 142 | 1.84% | 0.25 | 0.806 | -13.50% * | -1.71 | 0.089 |
| (-2,0) | 364 | 7.44% | 1.26 | 0.207 | 3.80% | 0.63 | 0.527 | 137 | 18.75% ** | 2.08 | 0.039 | 17.05% * | 1.88 | 0.062 |
| (-1,+1) | 356 | 3.61% | 0.63 | 0.532 | 0.85% | 0.14 | 0.890 | 133 | 8.26% | 0.89 | 0.377 | 3.89% | 0.42 | 0.677 |
| | | | | | | | | | | | | | | |

| | | | Mi | xed Own | ership | | |
|-----------|-----|----------------|--------|------------------------------|----------------|--------|------------------------------|
| Windows | Ν | Equal Weighted | T-stat | $\mathbf{Pr} > \mathbf{t} $ | Value Weighted | T-stat | $\mathbf{Pr} > \mathbf{t} $ |
| (-90,0) | 587 | 28.96% *** | 4.83 | <.0001 | 27.99% *** | 4.55 | <.0001 |
| (-70,0) | 587 | 25.77% *** | 4.24 | <.0001 | 25.94% *** | 4.11 | <.0001 |
| (-60,0) | 586 | 23.94% *** | 4.07 | <.0001 | 23.53% *** | 3.84 | <.0002 |
| (-30,0) | 588 | 21.81% *** | 4.99 | <.0001 | 22.88% *** | 5.12 | <.0001 |
| (-10,0) | 590 | 27.07% *** | 5.9 | <.0001 | 24.68% *** | 5.36 | <.0001 |
| (-7,0) | 590 | 24.95% *** | 5.32 | <.0001 | 22.71% *** | 4.83 | <.0001 |
| (-3,0) | 587 | 20.01% *** | 3.99 | <.0001 | 17.37% *** | 3.43 | 0.001 |
| (-2,+1) | 588 | 15.12% *** | 2.82 | 0.005 | 11.84% ** | 2.21 | 0.028 |
| (-1,0) | 551 | 21.24% *** | 4.09 | <.0001 | 18.68% *** | 3.57 | 0.000 |
| (-60,+60) | 586 | 15.45% *** | 3.03 | 0.003 | 13.17% ** | 2.45 | 0.014 |
| (-2,0) | 588 | 24.49% *** | 4.42 | <.0001 | 21.57% *** | 3.91 | 0.000 |
| (-1,+1) | 551 | 10.96% ** | 2.23 | 0.026 | 8.07% * | 1.63 | 0.104 |
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Table 7a: Target and Ownership Structure Effects on Takeover Performance, Market Model

This table reports the cumulative abnormal returns (CARs) surrounding takeover announcements in China for target firms. The CARs are estimated using market model.

Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs.

Ownership is divided into three groups: State (when state % shares is greater than 50%), Private (when private % shares is greater than 50%) and Mix Control (when state % plus private % shares is less than 50%) ownership. Significance is reported at the 10,5 and 1 percent level respectively as ***,**.

| | | | | State Ow | nership | | | Private Ownership | | | | | | | | |
|-----------|-----|----------------|---------|-------------|----------------|---------|-------------|-------------------|----------------|---------|-------------|----------------|---------|-------------|--|--|
| Windows | Ν | Equal Weighted | T stats | $\Pr > t $ | Value Weighted | T stats | $\Pr > t $ | Ν | Equal Weighted | T stats | $\Pr > t $ | Value Weighted | T stats | $\Pr > t $ | | |
| (-90,0) | 537 | 11.59% ** | 2.41 | 0.016 | 4.08% | 0.83 | 0.407 | 287 | -3.50% | -0.39 | 0.697 | -11.60% | -1.27 | 0.206 | | |
| (-70,0) | 541 | 7.94% * | 1.72 | 0.086 | 0.62% | 0.13 | 0.895 | 284 | 1.43% | 0.15 | 0.879 | -5.50% | -0.56 | 0.574 | | |
| (-60,0) | 542 | 5.20% | 1.12 | 0.261 | -2.20% | -0.47 | 0.642 | 285 | 2.98% | 0.32 | 0.748 | -4.70% | -0.49 | 0.628 | | |
| (-30,0) | 540 | 14.41% *** | 2.96 | 0.003 | 6.16% | 1.25 | 0.211 | 283 | 9.95% | 1.49 | 0.136 | 5.26% | 0.76 | 0.449 | | |
| (-10,0) | 541 | 19.72% *** | 4.27 | <.0001 | 18.12% *** | 3.78 | 0.000 | 290 | 1.81% | 0.26 | 0.794 | 1.04% | 0.15 | 0.884 | | |
| (-7,0) | 544 | 21.11% *** | 4.46 | <,0001 | 19.16% *** | 3.91 | 0.000 | 289 | 6.25% | 1.03 | 0.304 | 5.19% | 0.83 | 0.405 | | |
| (-3,0) | 542 | 23.37% *** | 4.6 | <.0001 | 22.13% *** | 4.29 | <.0001 | 288 | 7.91% | 1.17 | 0.243 | 6.70% | 0.97 | 0.335 | | |
| (-2,+1) | 539 | 17.48% *** | 3.5 | 0.001 | 16.97% *** | 3.28 | 0.001 | 283 | -0.60% | -0.09 | 0.926 | -4.30% | -0.58 | 0.564 | | |
| (-1,0) | 516 | 20.88% *** | 3.94 | <.0001 | 21.17% *** | 3.97 | <.0001 | 280 | 12.89% ** | 1.92 | 0.056 | 12.04% * | 1.78 | 0.077 | | |
| (-60,+60) | 542 | 6.98% | 1.38 | 0.167 | -3.00% | -0.59 | 0.556 | 285 | -3.80% | -0.45 | 0.656 | -11.80% | -1.37 | 0.171 | | |
| (-2,0) | 539 | 22.44% *** | 4.46 | <.0001 | 21.74% *** | 4.27 | <.0001 | 283 | 11.91% * | 1.67 | 0.096 | 11.02% | 1.53 | 0.128 | | |
| (-1,+1) | 516 | 15.76% *** | 2.96 | 0.003 | 15.93% *** | 2.85 | 0.005 | 280 | -2.10% | -0.33 | 0.740 | -5.90% | -0.82 | 0.415 | | |

| | 8 | | | | | | | |
|-----------|-----|----------------|---------|----------|----------------|---------|------------------------------|--|
| | | | | Mixed Ow | nership | | | |
| Windows | Ν | Equal Weighted | T stats | Pr > t | Value Weighted | T stats | $\mathbf{Pr} > \mathbf{t} $ | |
| (-90,0) | 781 | 20.52% *** | 3.84 | 0.000 | 14.66% *** | 2.81 | 0.005 | |
| (-70,0) | 776 | 21.19% *** | 3.89 | 0.000 | 15.17% *** | 2.85 | 0.005 | |
| (-60,0) | 776 | 18.53% *** | 3.34 | 0.001 | 12.35% ** | 2.29 | 0.023 | |
| (-30,0) | 777 | 20.59% *** | 3.56 | 0.000 | 15.21% *** | 2.66 | 0.008 | |
| (-10,0) | 781 | 20.95% *** | 5.4 | <.0001 | 17.76% *** | 4.52 | <.0001 | |
| (-7,0) | 781 | 22.80% *** | 5.81 | <.0001 | 19.38% *** | 4.86 | <.0001 | |
| (-3,0) | 779 | 22.26% *** | 5.43 | <.0001 | 17.37% *** | 4.22 | <.0001 | |
| (-2,+1) | 774 | 16.35% *** | 3.66 | 0.000 | 13.14% *** | 2.92 | 0.004 | |
| (-1,0) | 728 | 21.61% *** | 4.75 | <.0001 | 18.66% *** | 4.09 | <.0001 | |
| (-60,+60) | 776 | 9.31% ** | 1.84 | 0.066 | 0.80% | 0.16 | 0.872 | |
| (-2,0) | 774 | 21.82% *** | 4.96 | <.0001 | 17.96% *** | 4.04 | <.0001 | |
| (-1,+1) | 728 | 13.58% *** | 2.94 | 0.003 | 11.08% ** | 2.36 | 0.019 | |
| | | | | | | | | |

Table 7b: Target and Ownership Structure Effects on Takeover Performance, Market Adjusted Model

This table reports the cumulative abnormal returns (CARs) surrounding takeover announcements in China for target firms. The CARs are estimated using market adjusted return model.

Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs.

Ownership is divided into three groups: State (when state % shares is greater than 50%), Private (when private % shares is greater than 50%) and Mix Control (when state % plus private % shares is less than 50%) ownership. Significance is reported at the 10,5 and 1 percent level respectively as ***,**,*.

| | | | | State Ow | nership | | | Private Ownership | | | | | | | | | |
|-----------|-----|----------------|---------|----------|----------------|---------|-------------|-------------------|----------------|---------|-------------|----------------|---------|-------------|--|--|--|
| Windows | Ν | Equal Weighted | T stats | Pr > t | Value Weighted | T stats | $\Pr > t $ | Ν | Equal Weighted | T stats | $\Pr > t $ | Value Weighted | T stats | $\Pr > t $ | | | |
| (-90,0) | 537 | 6.40% | 1.49 | 0.136 | -8.40% * | -1.88 | 0.060 | 287 | -11.90% | -1.42 | 0.155 | -28.50% *** | -3.22 | 0.001 | | | |
| (-70,0) | 541 | 3.23% | 0.76 | 0.448 | -10.10% ** | -2.31 | 0.021 | 284 | -5.30% | -0.61 | 0.541 | -20.60% ** | -2.17 | 0.031 | | | |
| (-60,0) | 542 | 1.49% | 0.34 | 0.734 | -11.70% *** | -2.6 | 0.010 | 285 | -3.20% | -0.37 | 0.714 | -18.40% ** | -1.97 | 0.049 | | | |
| (-30,0) | 540 | 11.81% ** | 2.49 | 0.013 | -0.70% | -0.14 | 0.887 | 283 | 4.97% | 0.78 | 0.436 | -4.70% | -0.71 | 0.479 | | | |
| (-10,0) | 541 | 18.85% *** | 4.13 | <.0001 | 14.50% *** | 3.11 | 0.002 | 290 | -0.30% | -0.04 | 0.969 | -4.60% | -0.66 | 0.508 | | | |
| (-7,0) | 544 | 19.70% *** | 4.21 | <.0001 | 15.67% *** | 3.28 | 0.001 | 289 | 5.15% | 0.85 | 0.397 | 1.28% | 0.21 | 0.835 | | | |
| (-3,0) | 542 | 22.45% *** | 4.44 | <.0001 | 19.09% *** | 3.77 | 0.000 | 288 | 6.39% | 0.95 | 0.343 | 3.50% | 0.51 | 0.607 | | | |
| (-2,+1) | 539 | 17.62% *** | 3.53 | 0.001 | 14.43% *** | 2.85 | 0.005 | 283 | -3.80% | -0.56 | 0.573 | -8.60% | -1.18 | 0.238 | | | |
| (-1,0) | 516 | 21.76% *** | 4.13 | <.0001 | 19.82% *** | 3.75 | 0.000 | 280 | 13.00% * | 1.9 | 0.058 | 10.33% | 1.52 | 0.129 | | | |
| (-60,+60) | 542 | 1.69% | 0.41 | 0.685 | -16.80% *** | -3.93 | <.0001 | 285 | -14.30% ** | -2.03 | 0.043 | -33.20% *** | -4.49 | <.0001 | | | |
| (-2,0) | 539 | 22.09% *** | 4.39 | <.0001 | 19.40% *** | 3.86 | 0.000 | 283 | 8.54% | 1.21 | 0.227 | 6.02% | 0.85 | 0.394 | | | |
| (-1,+1) | 516 | 17.22% *** | 3.23 | 0.001 | 14.59% *** | 2.65 | 0.008 | 280 | -2.40% | -0.36 | 0.716 | -7.40% | -1.03 | 0.306 | | | |

| (-1,+1) | 510 | 17.2278 | 0.20 | 0.001 | 14.5578 | 2.05 | 0.000 | 200 | -2.4078 | -0.00 | 0.710 | -10/8 | -1.00 | 0.000 |
|-----------|-----|----------------|---------|------------|----------------|---------|---------|-----|---------|-------|-------|-------|-------|-------|
| | | | | | | | | | | | | | | |
| | | | | Mixed Owne | rship | | 7 | | | | | | | |
| Windows | Ν | Equal Weighted | T stats | Pr > t | Value Weighted | T stats | Pr > t | | | | | | | |
| (-90,0) | 781 | 17.28% *** | 3.57 | 0.000 | 12.09% *** | 2.51 | 0.012 | | | | | | | |
| (-70,0) | 776 | 17.87% *** | 3.49 | 0.001 | 12.26% *** | 2.41 | 0.016 | | | | | | | |
| (-60,0) | 776 | 14.97% *** | 2.83 | 0.005 | 9.31% * | 1.79 | 0.074 | | | | | | | |
| (-30,0) | 777 | 18.80% *** | 3.32 | 0.001 | 13.53% ** | 2.4 | 0.017 | | | | | | | |
| (-10,0) | 781 | 20.24% *** | 5.39 | <.0001 | 17.15% *** | 4.46 | <.0001 | · | | | | | | |
| (-7,0) | 781 | 22.02% *** | 5.78 | <.0001 | 18.62% *** | 4.76 | <.0001 | | | | | | | |
| (-3,0) | 779 | 22.86% *** | 5.71 | <.0001 | 17.92% *** | 4.47 | <.0001 | | (| | | | | |
| (-2,+1) | 774 | 17.32% *** | 3.95 | <.0001 | 13.85% *** | 3.14 | 0.002 | | | | | | | |
| (-1,0) | 728 | 22.16% *** | 4.92 | <.0001 | 19.28% *** | 4.28 | <.0001 | | | | | | | |
| (-60,+60) | 776 | 5.10% | 1.12 | 0.261 | -3.20% | -0.69 | 0.492 | | | | | | | |
| (-2,0) | 774 | 22.44% *** | 5.21 | <.0001 | 18.31% *** | 4.23 | <.0001 | | | | | | | |
| (-1,+1) | 728 | 14.47% *** | 3.17 | 0.002 | 11.95% *** | 2.59 | 0.010 | | | | | | | |
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Table 8: Ownership Control Differences in Takeover Performance

This table reports the CAR's for Chinese takeover firms from Shenzhen and Shanghai exchange. CAR differences are reported based on dominant ownership group: private, state or mixed ownership and control. The CARs reported are estimated by two methods using market model. Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs. We use GLM Anova test for group CAR differences. ***,**, and * denote level of statistical significance (1, 5 and 10 percent) of difference in CARs across ownership groups. EW represents equally weighted CAR, and VW represents value weighted CAR.

| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | W 133 355 356 6.08% 0.86% 3.84% 106.72% 118.43% 126.37% |
|---|--|
| Windows: EW VW EW VW EW VW EW VW EW VW Acquirer Private Control Sample Size, n 141 141 139 139 137 137 137 137 133 State Control Sample Size, n 366 366 369 368 363 363 363 363 363 355 Mixed Control Sample Size, n 371 371 590 373 372 372 372 372 372 356 State Control Mean, % 2.96% -6.51% 4.00% 6.45% 3.17% -0.28% -0.09% 4.20% 2.27% Mixed Control Mean, % 7.53% -1.54% 15.77% 11.78% 103.2% 5.24% 8.71% 1.97% 8.81% Standard Devination of Private Control 101.69% 101.44% 102.17% 111.49% 102.10% 103.13% 101.71% 102.31% 106.90% 101 Standard Deviation of Mixed Control 122.75% 110.04% <th>W 133 355 356 6.08% 0.86% 3.84% 106.72% 118.43% 126.37%</th> | W 133 355 356 6.08% 0.86% 3.84% 106.72% 118.43% 126.37% |
| Acquirer Private Control Sample Size, n 141 141 139 139 137 137 137 137 137 State Control Sample Size, n 366 366 369 368 363 363 363 363 363 363 355 Mixed Control Sample Size, n 371 371 590 373 372 372 372 372 372 372 356 Private Control Mean, % 2.96% -6.51% 4.00% 6.45% 3.17% -0.28% 8.01% 6.21% 9.27% State Control Mean, % 7.53% -1.54% 15.77% 11.1.78% 10.32% 5.24% 8.71% 1.97% 8.81% Standard Deviation of Private Control 101.69% 101.44% 102.27% 111.49% 102.10% 103.13% 101.71% 102.31% 106.90% 10 Standard Deviation of Mixed Control 102.39% 111.44% 101.77% 137.17% 137.04% 138.28% 125.26% 12 12 15 10 | 133 355 356 6.08% 0.86% 3.84% 106.72% 118.43% 126.37% |
| Acquirer Private Control Sample Size, n 141 141 139 139 137 137 137 137 137 State Control Sample Size, n 366 366 369 368 363 363 363 363 363 363 365 Mixed Control Sample Size, n 371 371 590 373 372 373 | 133 355 356 6.08% 0.86% 3.84% 106.72% 118.43% 126.37% |
| State Control Sample Size, n 366 366 369 368 363 363 363 363 355 Mixed Control Sample Size, n 371 371 371 590 373 372 373 371 | 355 356 6.08% 0.86% 3.84% 106.72% 118.43% 126.37% |
| Mixed Control Sample Size, n 371 371 590 373 372 373 372 373 372 373 372 373 371 373 | 356 6.08% 0.86% 3.84% 106.72% 118.43% 126.37% |
| Private Control Mean, % 3.19% -4.72% 16.81% 13.84% 10.32% 9.36% 8.01% 6.21% 9.27% State Control Mean, % 2.96% -6.51% 4.00% 6.45% 3.17% -0.28% -0.09% -4.20% 2.27% Mixed Control Mean, % 7.53% -1.54% 15.77% 11.78% 10.32% 5.24% 8.71% 1.97% 8.81% Standard Deviation of Private Control 10.69% 101.44% 102.27% 111.49% 10.32% 5.24% 8.71% 1.97% 8.81% Standard Deviation of State Control 10.69% 101.44% 102.27% 111.49% 10.2.10% 103.13% 101.71% 102.31% 109.90% 11 Standard Deviation of Mixed Control 122.75% 110.04% 113.28% 110.90% 137.17% 137.04% 136.41% 138.28% 125.26% 12 Comparison: Private vs. State, % 0.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% | 6.08% 0.86% 3.84% 106.72% 118.43% 126.37% |
| State Control Mean, % 2.96% -6.51% 4.00% 6.45% 3.17% -0.28% -0.09% -4.20% 2.27% Mixed Control Mean, % 7.53% -1.54% 15.77% 11.78% 10.32% 5.24% 8.71% 1.97% 8.81% Standard Deviation of Private Control 101.69% 101.44% 102.27% 111.49% 102.10% 103.13% 101.71% 102.31% 106.90% 10 Standard Deviation of State Control 109.39% 111.44% 101.17% 105.98% 111.84% 115.75% 117.60% 124.13% 109.90% 11 Standard Deviation of Mixed Control 122.75% 110.04% 113.28% 110.90% 137.17% 137.04% 136.41% 138.28% 125.26% 12 Comparison: Private vs. State, % 0.23% 1.79% 7.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 | 0.86% 3.84% 106.72% 118.43% 126.37% |
| Mixed Control Mean, % 7.53% -1.54% 15.77% 11.78% 10.32% 5.24% 8.71% 1.97% 8.81% Standard Deviation of Private Control 101.69% 101.44% 102.27% 111.49% 102.10% 103.13% 101.71% 102.31% 106.90% 10 Standard Deviation of State Control 109.39% 111.44% 101.17% 105.98% 111.84% 115.75% 117.60% 124.13% 109.90% 11 Standard Deviation of Mixed Control 122.75% 110.04% 113.28% 110.90% 137.17% 137.04% 136.41% 138.28% 125.26% 12 Comparison: Private vs. State, % 0.23% 1.79% 12.81% 7.39% 7.15% 9.63% 8.10% 10.40% 7.00% Pr > F value 0.80 0.87 0.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 <th>3.84% 106.72% 118.43% 126.37%</th> | 3.84% 106.72% 118.43% 126.37% |
| Standard Deviation of Private Control 101.69% 101.44% 102.27% 111.49% 102.10% 103.13% 101.71% 102.31% 106.90% 10 Standard Deviation of State Control 109.39% 111.44% 101.17% 105.98% 111.84% 115.75% 117.60% 124.13% 109.90% 11 Standard Deviation of Mixed Control 122.75% 110.04% 113.28% 110.90% 137.17% 137.04% 136.41% 138.28% 125.26% 12 Comparison: Private vs. State, % 0.23% 1.79% 12.81% 7.39% 7.15% 9.63% 8.10% 10.40% 7.00% Pr > F value 0.80 0.87 0.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 0.95 0.74 0.97 Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% | 106.72% 118.43% 126.37% |
| Standard Deviation of State Control 109.39% 111.44% 101.17% 105.98% 111.84% 115.75% 117.60% 124.13% 109.90% 11 Standard Deviation of Mixed Control 122.75% 110.04% 113.28% 110.90% 137.17% 137.04% 136.41% 124.13% 109.90% 11 Comparison: Private vs. State, % 0.23% 1.79% 12.81% 7.39% 7.15% 9.63% 8.10% 10.40% 7.00% Pr > F value 0.80 0.87 0.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 0.95 0.74 0.97 Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% -5.52% -8.79% -6.16% -6.54% - Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55< | 118.43% 126.37% |
| Standard Deviation of Mixed Control 122.75% 110.04% 113.28% 110.90% 137.17% 137.04% 136.41% 138.28% 125.26% 12 Comparison: Private vs. State, % 0.23% 1.79% 12.81% 7.39% 7.15% 9.63% 8.10% 10.40% 7.00% Pr > F value 0.80 0.87 0.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 0.95 0.74 0.97 Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% -5.52% -8.79% -6.16% -6.54% -7.14% Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55 0.45 | 126.37% |
| Comparison: Private vs. State, % 0.23% 1.79% 12.81% 7.39% 7.15% 9.63% 8.10% 10.40% 7.00% Pr > F value 0.80 0.87 0.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 0.95 0.74 0.97 Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% -5.52% -8.79% -6.16% -6.54% - Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55 0.45 | |
| Comparison: Private vs. State, % 0.23% 1.79% 12.81% 7.39% 7.15% 9.63% 8.10% 10.40% 7.00% Pr > F value 0.80 0.87 0.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 0.95 0.74 0.97 Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% -5.52% -8.79% -6.16% -6.54% - Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55 0.45 | |
| Pr > F value 0.80 0.87 0.23 0.50 0.56 0.44 0.51 0.44 0.55 Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 0.95 0.74 0.97 Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% -5.52% -8.79% -6.16% -6.54% - Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55 0.45 | 5.22% |
| Comparison: Private vs. Mixed, % -4.34% -3.18% 1.04% 2.06% 0.01% 4.11% -0.70% 4.24% 0.46% Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 0.95 0.74 0.97 Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% -5.52% -8.79% -6.16% -6.54% - Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55 0.45 | 0.67 |
| Pr > F value 0.70 0.78 0.92 0.85 1.00 0.74 0.95 0.74 0.97 Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% -5.52% -8.79% -6.16% -6.54% - Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55 0.45 | 2.25% |
| Comparison: State vs. Mixed, % -4.57% -4.97% -11.77% -5.33% -7.14% -5.52% -8.79% -6.16% -6.54% Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55 0.45 | 0.85 |
| Pr > F value 0.39 0.55 0.13 0.51 0.43 0.55 0.34 0.55 0.45 | -2.98% |
| | 0.74 |
| | |
| Target Private Control Sample Size, n 284 290 290 283 283 283 283 283 280 | 280 |
| State Control Sample Size, n 541 541 541 541 539 539 539 539 539 516 | 516 |
| Mixed Control Sample Size, n 774 774 779 779 772 772 772 772 726 | 726 |
| Private Control Mean, % 1.43% -5.54% 1.81% 1.04% -0.62% -4.26% -5.57% -9.07% -2.13% | -5.88% |
| State Control Mean, % 7.94% 0.62% 19.72% 18.12% 17.48% 16.97% 17.62% 16.96% 15.76% 1 | 15.93% |
| Mixed Control Mean, % 21.24% 15.31% 20.74% 17.53% 16.56% 13.19% 12.63% 9.31% 13.92% 1 | 11.30% |
| Standard Deviation of Private Control 157.03% 165.78% 117.82% 120.63% 113.71% 123.80% 112.43% 120.73% 107.07% 12 | 120.52% |
| Standard Deviation of State Control 107.43% 108.79% 107.37% 111.51% 115.94% 119.93% 120.34% 122.68% 121.09% 12 | 126.85% |
| Standard Deviation of Mixed Control 152.03% 148.59% 107.25% 108.13% 118,27% 120.20% 124.33% 126.43% 122.51% 12 | 124.75% |
| Comparison: Private vs. State, % -6.52% -6.16% -17.90% ** -17.09% ** -18.11% ** -21.22% ** -23.19% *** -26.03% *** -17.88% ** -2 | -21.81% ** |
| $\mathbf{Pr} > \mathbf{F} \text{ value} \qquad 0.32 \qquad 0.35 \qquad 0.02 \qquad 0.04 \qquad 0.05 \qquad 0.02 \qquad 0.01 \qquad 0.00 \qquad 0.04$ | 0.02 |
| Comparison: Private vs. Mixed, % -19.82% ** -20.85% ** -18.92% *** -16.49% -17.18% ** -17.18% -18.38% ** -16.04% -1 | -17.18% ** |
| Pr > F value 0.04 0.03 0.01 0.03 ** 0.03 0.04 0.03 ** 0.03 0.06 * | 0.05 |
| Comparison: State vs. Mixed, % -13.30% * -14.69% * -1.03% 0.60% 0.93% 3.78% 0.93% 7.66% 1.84% | 4.63% |
| Pr > F value 0.09 0.06 0.87 0.92 0.89 0.58 0.46 0.27 0.79 | 0.52 |

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Table 9: Diversification Benefits in Takeover Performance

This table reports the CAR's for Chinese takeover firms from Shenzhen and Shanghai exchange. CAR differences are reported based on whether if the takeover represents a diversification deal or not. The CAR's reported are estimated by two methods using market model and market adjusted model. Both value weighted and equal weighted indexes of the Shanghai Composite Index and the Shenzhen Composite Index are used to estimate CARs. We use t-test for mean CAR differences. EW represents equally weighted CAR, and VW represents value weighted CAR. ***,**, and * denote level of statistical significance (1, 5 and 10 percent).

| Acquirer | Windows: | Cumulative Abnormal Returns (CARs) (-60,+1) (-2,+1) (-2,+2) (-2,0) Windowse EW VW EW VW EW VW | | | | | | | | |
|----------------------------|---|---|----------|------------|------------|-------------|-------------|-----------------|-------------|--|
| Acquirer | Windows: | | \$7\$\$7 | ENV. | 17117 | (2,12) | ¥7¥¥7 | (-2,0) EW VW | | |
| Acquirer | | LW | V W | EW | vw | EW | V W | EW | vw | |
| Acquirer | Consolidation deals Sample Size n | 1125 | 1125 | 1107 | 1107 | 1127 | 1107 | 1107 | 1127 | |
| | Diversifying Deals Sample Size n | 179 | 179 | 179 | 179 | 179 | 179 | 179 | 179 | |
| | Consolidation deals Mean % | 7 16% | 1 18% | 2.03% | -1 20% | -1 90% | -6 20% | 8 76% | 6 1 1% | |
| | Diversifying Deals Mean. % | 7.08% | 1.10% | 28.50% | 24 20% | 23.68% | 19.25% | 40.01% | 36.51% | |
| | Standard Deviation of Consolidation deals | 114 94% | 117 16% | 122 76% | 123.36% | 120.96% | 123 34% | 124 69% | 123 53% | |
| | Standard Deviation of Diversifying Deals | 118 24% | 121 99% | 142 79% | 145.94% | 153 22% | 154 38% | 140 88% | 145 18% | |
| | | | | | | | | | | |
| Diversification Difference | Comparison: Consolidation vs. Diversifying, % | 0.08% | 0.08% | -26.50% ** | -25.40% ** | -25.60% ** | -25.50% ** | -31.30% *** | -30.40% *** | |
| | Standard Deviation of Return Difference, % | 115.39% | 117.83% | 125.68% | 126.68% | 125.85% | 128.02% | 127.02% | 126.70% | |
| | Pr > t value | 0.993 | 0.993 | 0.020 | 0.028 | 0.034 | 0.037 | 0.006 | 0.009 | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Target | Consolidation deals Sample Size, n | 1694 | 1694 | 1676 | 1676 | 1676 | 1676 | 1676 | 1676 | |
| | Diversifying Deals Sample Size, n | 346 | 346 | 345 | 345 | 345 | 345 | 345 | 345 | |
| | Consolidation deals Mean, % | 8.65% | 1.96% | 11.26% | 7.66% | 7.83% | 4.23% | 17.14% | 14.08% | |
| | Diversifying Deals Mean, % | 25.47% | 15.44% | 26.26% | 24.50% | 25.55% | 23.13% | 28.61% | 26.10% | |
| | Standard Deviation of Consolidation deals | 133.25% | 133,37% | 118.65% | 121.68% | 121.10% | 123.90% | 115.51% | 116.21% | |
| | Standard Deviation of Diversifying Deals | 276.67% | 277.36% | 113.78% | 114.53% | 119.60% | 120.04% | 112.69% | 115.55% | |
| | | | | | | | | | | |
| Diversification Difference | Comparison: Consolidation vs. Diversifying, % | -16.80% | -13.50% | -15.00% ** | -16.80% ** | -17.70% *** | -18.90% *** | -11.50% * | -12.00% * | |
| | Standard Deviation of Return Difference,% | 166.46% | 166.73% | 117.83% | 120.49% | 120.85% | 123.25% | 115.03% | 116.09% | |
| | Pr > F value | 0.270 | 0.377 | 0.031 | 0.018 | 0.013 | 0.010 | 0.092 | 0.080 | |
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Table 10. Correlation Analysis of Determinants of Takeover Performance, Acquirers

This table reports the correlation between Aquirer's M&A characteristic during 1997 to 2005. The variables are exchange, Privateseller, Percentage SOE, relative size, tradable A share %. Percentage legal, log total asset, Debt asset, ROA, IPO age, Pre WTO, State percent square, Mixed control, Diversify deal, Price Earnings, TopQ4 Free Cash Flow, 30days momentum, Market to book equity, Dividends per share, Foreign ownership percent, Log Volume of trading, Total Variance of Firm returns, and mean 10 days return

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) |
|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------|--------------------|--------------------|--------------------|
| (1) BEXCHANGE | 1 | 0.01798 0.5109 | 0.04964 0.0964 | -0.03817 0.1625 | -0.01565 0.6003 | -0.05965 0.0456 | 0.06044 0.0269 | 0.02755 0.3136 | 0.009 0.7419 | 0.01039 0.7054 | -0.06778 0.0131 | 0.05541 0.0634 | -0.00822 0.7833 | -0.05994 0.0282 | -0.00714 0.7939 | -0.08069 0.0031 | 0.00194 0.9436 | 0.01364 0.6217 | 0.05072 0.0634 | 0.016 0.552 | 0.12243 <.0001 | -0.02642 0.3399 | -0.00589 0.8301 |
| (2) privateseller | 0.01798 0.5109 | 1 | -0.02297 0.4418 | 0.02931 0.2837 | -0.01718 0.5651 | 0.01599 0.5923 | -0.03724 0.1731 | 0.0056 0.8377 | -0.0049 0.8577 | 0.02552 0.3532 | 0.01535 0.5744 | -0.01957 0.5124 | 0.00849 0.7761 | 0.03454 0.2063 | 0.00183 0.9467 | 0.00859 0.7535 | 0.01034 0.7064 | 0.00369 0.8938 | -0.10699 <.0001 | 0.024 0.368 | -0.02074 0.453 | 0.01017 0.7133 | 0.02211 0.4205 |
| (3) Percentage_SOE | 0.04964 0.0964 | -0.02297 0.4418 | 1 | -0.01627 0.5859 | -0.25071 <.0001 | -0.89079 <.0001 | 0.14433 <.0001 | -0.02727 0.3612 | 0.01156 0.6987 | -0.12695 <.0001 | -0.06742 0.0239 | 0.9626 <.0001 | -0.75339 <.0001 | -0.18035 <.0001 | 0.05453 0.0677 | 0.02234 0.4545 | -0.00452 0.8801 | -0.05806 0.0544 | 0.02395 0.4227 | 0.002 0.924 | 0.07415 0.014 | -0.03024 0.3172 | -0.05858 0.0508 |
| (4) relative_size | -0.03817 0.1625 | 0.02931 0.2837 | -0.01627 0.5859 | 1 | -0.04862 0.1034 | 0.02903 0.3311 | -0.17614 <.0001 | 0.01515 0.5794 | 0.00137 0.9601 | -0.06455 0.0188 | 0.09855 0.0003 | -0.01034 0.7292 | 0.03297 0.2696 | 0.04191 0.1252 | -0.00832 0.761 | 0.03675 0.1788 | 0.01003 0.7146 | 0.10417 0.0002 | -0.04203 0.1241 | -0.006 0.826 | -0.03559 0.1977 | 0.02264 0.4135 | 0.06258 0.0225 |
| (5) A_share | -0.01565 0.6003 | -0.01718 0.5651 | -0.25071 <.0001 | -0.04862 0.1034 | 1 | -0.09874 0.0009 | -0.10993 0.0002 | 0.05051 0.0907 | -0.05675 0.0573 | 0.33546 <.0001 | -0.07442 0.0126 | -0.29948 <.0001 | -0.20378 <.0001 | 0.22738 <.0001 | 0.0181 0.5447 | -0.02453 0.4115 | -0.00414 0.8901 | 0.00238 0.9372 | -0.14326 <.0001 | -0.342 <.001 | 0.09613 0.0014 | -0.01969 0.515 | -0.04398 0.1427 |
| (6) Percentage_legal | -0.05965 0.0456 | 0.01599 0.5923 | -0.89079 <.0001 | 0.02903 0.3311 | -0.09874 0.0009 | 1 | -0.17358 <.0001 | 0.01227 0.6811 | 0.00764 0.7981 | -0.03934 0.1907 | 0.08071 0.0068 | -0.81458 <.0001 | 0.83933 <.0001 | 0.09516 0.0014 | -0.07308 0.0143 | -0.01424 0.6335 | -0.00113 0.9699 | 0.06945 0.0214 | 0.03543 0.2354 | -0.081 0.61 | -0.13125 <.0001 | 0.04411 0.1444 | 0.0662 0.0273 |
| (7) log_total_asset | 0.06044 0.0269 | -0.03724 0.1731 | 0.14433 <.0001 | -0.17614 <.0001 | -0.10993 0.0002 | -0.17358 <.0001 | 1 | -0.08321 0.0023 | 0.11148 <.0001 | 0.09595 0.0005 | -0.21952 <.0001 | 0.1659 <.0001 | -0.11873 <.0001 | -0.1358 <.0001 | 0.10061 0.0002 | 0.00124 0.9639 | -0.00507 0.8533 | -0.20811 <.0001 | 0.23274 <.0001 | 0.149 <.001 | 0.35047 <.0001 | -0.06004 0.03 | -0.09386 0.0006 |
| (8) Debt_Asset | 0.02755 0.3136 | 0.0056 0.8377 | -0.02727 0.3612 | 0.01515 0.5794 | 0.05051 0.0907 | 0.01227 0.6811 | -0.08321 0.0023 | 1 | -0.8001 <.0001 | 0.17805 <.0001 | -0.07713 0.0047 | -0.04142 0.1654 | -0.03022 0.3116 | 0.0567 0.038 | -0.05538 0.0427 | 0.01323 0.6286 | -0.01701 0.5353 | 0.0632 0.0221 | -0.08995 0.001 | 0.007 0.779 | -0.02195 0.427 | -0.00854 0.7578 | 0.06691 0.0147 |
| (9) ROA | 0.009 0.7419 | -0.0049 0.8577 | 0.01156 0.6987 | 0.00137 0.9601 | -0.05675 0.0573 | 0.00764 0.7981 | 0.11148 <.0001 | -0.8001 <.0001 | 1 <.0001 | -0.1876 | 0.11439 <.0001 | 0.03582 0.2304 | 0.04876 0.1024 | -0.02311 0.3979 | -0.03314 0.2255 | -0.02427 0.3747 | 0.01797 0.5124 | 0.00654 0.813 | 0.12648 <.0001 | -0.009 0.741 | 0.00402 0.8843 | 0.01652 0.5506 | -0.04449 0.105 |
| (10) IPO_age | 0.01039 0.7054 | 0.02552 0.3532 | -0.12695 <.0001 | -0.06455 0.0188 | 0.33546 <.0001 | -0.03934 0.1907 | 0.09595 0.0005 | 0.17805 <.0001 | -0.1876 <.0001 | 1 | -0.35608 <.0001 | -0.17757 <.0001 | -0.0998 0.0009 | 0.15614 <.0001 | 0.10491 0.0001 | 0.05743 0.0366 | -0.07521 0.0063 | 0.05536 0.0462 | -0.17034 <.0001 | 0.145 <.001 | 0.04648 0.0943 | -0.07261 0.0089 | -0.03732 0.1763 |
| (11) Pre_WTO | -0.06778 0.0131 | 0.01535 0.5744 | -0.06742 0.0239 | 0.09855 0.0003 | -0.07442 0.0126 | 0.08071 0.0068 | -0.21952 <.0001 | -0.07713 0.0047 | 0.11439 <.0001 | -0.35608 <.0001 | 1 | -0.0564 0.0588 | 0.07625 0.0106 | 0.0684 0.0123 | -0.13462 <.0001 | 0.00848 0.7564 | 0.06879 0.0121 | 0.10416 0.0002 | -0.13284 <.0001 | -0.043 0.117 | -0.12244 <.0001 | 0.0526 0.0573 | 0.14248 <.0001 |
| (12) stateper_sq | 0.05541 0.0634 | -0.01957 0.5124 | 0.9626 <.0001 | -0.01034 0.7292 | -0.29948 <.0001 | -0.81458 <.0001 | 0.1659 <.0001 | -0.04142 0.1654 | 0.03582 0.2304 | -0.17757 <.0001 | -0.0564 0.0588 | | -0.63361 <.0001 | -0.17732 <.0001 | 0.0455 0.1275 | 0.02759 0.3556 | -0.00301 0.92 | -0.05757 0.0565 | 0.04995 0.0943 | -0.041 0.169 | 0.07925 0.0086 | -0.0233 0.441 | -0.05457 0.0689 |
| (13) mix_control | -0.00822 0.7833 | 0.00849 0.7761 | -0.75339 <.0001 | 0.03297 0.2696 | -0.20378 <.0001 | 0.83933 <.0001 | -0.11873 <.0001 | -0.03022 0.3116 | 0.04876 0.1024 | -0.0998 0.0009 | 0.07625 0.0106 | -0.63361 <.0001 | 1 | 0.02436 0.4148 | -0.07473 0.0122 | -0.03221 0.2808 | 0.02072 0.4897 | 0.04961 0.1004 | 0.05857 0.0497 | 0.077 0.95 | -0.10612 0.0004 | 0.03821 0.2062 | 0.05233 0.0811 |
| (14) diversify_deal | -0.05994 0.0282 | 0.03454 0.2063 | -0.18035 <.0001 | 0.04191 0.1252 | 0.22738 <.0001 | 0.09516 0.0014 | -0.1358 <.0001 | 0.0567 0.038 | -0.02311 0.3979 | 0.15614 <.0001 | 0.0684 0.0123 | -0.17732 <.0001 | 0.02436 0.4148 | | -0.01143 0.676 | 0.03845 0.1595 | 0.06011 0.0283 | 0.08952 | -0.12149 <.0001 | -0.077 0.46 | -0.0691 0.0123 | -0.02073 0.4541 | 0.00266 0.9228 |
| (15) PE | -0.00714 0.7939 | 0.00183 0.9467 | 0.05453 0.0677 | -0.00832 0.761 | 0.0181 0.5447 | -0.07308 0.0143 | 0.10061 | -0.05538 0.0427 | -0.03314 0.2255 | 0.10491 0.0001 | -0.13462 <.0001 | 0.0455 | -0.07473 0.0122 | -0.01143 0.676 | 1 | -0.00333 0.9032 | -0.00843 0.7586 | -0.05488 0.0469 | -0.09902 0.0003 | 0.039 0.153 | 0.01921 0.487 | -0.01238 0.6548 | -0.07265 0.0081 |
| (16) I opQ4_FCF | -0.08069 0.0031 | 0.00859 | 0.02234 | 0.03675 | -0.02453 0.4115 | -0.01424 0.6335 | 0.00124 | 0.01323 | -0.02427 0.3747 | 0.05743 | 0.00848 | 0.02759 | 0.2808 | 0.03845 | -0.00333 | 1 | 0.00398 | 0.10/93 | -0.02133 0.4353 | -0.008 0.757 | -0.03137 0.2561 | -0.0272 0.3257 | 0.03322 |
| (17) 30days_momentum | 0.00194 | 0.01034 | -0.00452 0.8801 | 0.01003 | 0.8901 | 0.9699 | -0.00507 0.8533 | 0.5353 | 0.01797 0.5124 | 0.0063 | 0.06879 | -0.00301 0.92 | 0.02072 | 0.06011 | 0.7586 | 0.00398 | 0.8786 | 0.00423 | 0.1529 | 0.016 | -0.0089 0.7481 | -0.02461 0.3753 | 0.0222 |
| (18) market_book_equity | 0.01364 | 0.00369 | 0.05806 | 0.10417 0.0002 | 0.00238 | 0.06945 | -0.20811 <.0001 | 0.0632 | 0.00654 | 0.05536 | 0.10416 | -0.05757 | 0.04961 | 0.08952 | -0.05488 0.0469 | <.0001 | 0.00423 | 1 | 0.0052 | -0.013 | -0.03559 0.1977 | 0.01144 | 0.00653 |
| (19) Dividends_share | 0.05072 | -0.10699 <.0001 | 0.02395 | -0.04203 0.1241 | -0.14326 | 0.03543 | 0.23274 <.0001 | -0.08995 0.001 | 0.12648 <.0001 | -0.17034 <.0001 | -0.13284 | 0.04995 | 0.05857 | -0.12149 <.0001 | -0.09902 0.0003 | -0.02133 0.4353 | -0.0392 0.1529 | -0.07715 0.0052 | 1 | 0.016 0.552 | 0.11702 | -0.00191 0.9449 | -0.02258 |
| (20) foreign_percent | 0.01627 | 0.02464 | 0.00284 | 0.8258 | -0.34231 <.0001 | -0.08186 | 0.149 <.0001 | 0.00768 | -0.00904 0.7411 | 0.14595 <.0001 | -0.0436 | 0.1685 | 0.0774 | -0.0774 0.0046 | 0.03906 | -0.00845 0.7574 | 0.0161 | 0.6331 | 0.01628 | 0.3637 | -0.0251 | 0.7114 | 0.04211 |
| (21) log_Volume | 0.12243 <.0001 | -0.02074 0.453 | 0.07415 0.014 | -0.03559 0.1977 | 0.09613 | -0.13125 <.0001 | 0.35047 <.0001 | -0.02195 0.427 | 0.00402 | 0.04648 | -0.12244 <.0001 | 0.07925 | -0.10612 0.0004 | -0.0691 0.0123 | 0.01921 0.487 | -0.03137 0.2561 | -0.0089 0.7481 | 0.1977 | 0.11702 <.0001 | -0.025 0.364 | | -0.05759 0.0394 | -0.05409 0.0509 |
| (22) I otal_Var_EW | -0.02642 0.3399 | 0.01017 | -0.03024 0.3172 | 0.02264 | -0.01969 0.515 | 0.04411 | -0.06004 | -0.00854 0.7578 | 0.01652 | -0.07261 0.0089 | 0.0526 | -0.0233 0.441 | 0.03821 | -0.02073 0.4541 | -0.01238 0.6548 | -0.0272 0.3257 | -0.02461 0.3753 | 0.01144 | -0.00191 0.9449 | -0.01 0.711 | -0.05759 0.0394 | | 0.05946 0.0323 |
| (23) mean_10_days_ret | -0.00589 0.8301 | 0.02211 0.4205 | -0.05858 0.0508 | 0.06258 | -0.04398 0.1427 | 0.0662 | -0.09386 0.0006 | 0.06691 0.0147 | -0.04449 0.105 | -0.03732 0.1763 | 0.14248 <.0001 | -0.05457 0.0689 | 0.05233 0.0811 | 0.00266 0.9228 | -0.07265 0.0081 | 0.03322 | 0.0222 0.4193 | 0.00653 | -0.02258 0.4108 | 0.042 0.125 | -0.05409 0.0509 | 0.05946 0.0323 | 1 |

Table 11: Regression Results on Determinants of Takeover Performance for Chinese Acquirers

This table presents the results of OLS regression of acquirers' M&A charateristics of 1043 deals during 1997 to 2005. The dependent variable are announcement return CARs for windows (1,0) and (-2,1). There are 4 groups of independant variables: firm characteristics, deal characteristics, other variables, and market timing. The type of acquisition whether by merger or by tender is not analyzed because almost all firms in this sample are mergers. The method of payment, by either cash or stock, is not analyzed because almost all deals are paid by cash. Coefficients are reported in the top line and the t-value is reported below in parenthesis. EW represents equally weighted CAR, and VW represents value weighted CAR. ***, **, and * denote significance at the 1%,5%, and 10% level, respectively.

| | Event Window, CAR as DV | | (-90,0) | | | | (-30,0) | | |
|-----------------|-----------------------------|------------|------------|--------------|------------|-----------|-----------|-------------|------------|
| | | MARKET M | ODEL N | IARKET ADJUS | TED RETURN | MARKET M | ODEL N | ARKET ADJUS | TED RETURN |
| Variable Type | Windows: | EW | VW | EW | VW | EW | VW | EW | VW |
| | Intercept | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | - | 0.46 | 0.42 | -0.05 | -0.09 | 0.08 | 0.33 | -0.80 | -0.61 |
| | Bidder's Exchange Listing | | | | | | | | |
| Firm | | -0.022 | -0.021 | -0.013 | -0.015 | -0.019 | -0.015 | -0.005 | -0.008 |
| Characteristics | | -0.75 | -0.74 | -0.46 | -0.54 | -0.63 | -0.51 | -0.19 | -0.28 |
| | State Ownership % | 0.200 | 0.225 | 0.042 | 0.053 | 0.046 | 0.008 | 0.010 | -0.028 |
| | | 0.91 | 1.04 | 0.20 | 0.25 | 0.20 | 0.04 | 0.04 | -0.13 |
| | Private Ownership % | 0.068 | 0.062 | -0.022 | -0.028 | 0.008 | -0.026 | -0.008 | -0.034 |
| | | 0.94 | 0.87 | -0.31 | -0.41 | 0.11 | -0.36 | -0.11 | -0.48 |
| | State Ownership Square % | 0 109 | 0 127 | 0.000 | 0.119 | 0.042 | 0.052 | 0.024 | 0.041 |
| | | -0.108 | -0.137 | -0.090 | -0.118 | -0.042 | -0.055 | -0.024 | -0.041 |
| | Foreign Ownershin % | 0.059 | 0.052 | 0.021 | 0.016 | 0.011 | -0.41 | 0.017 | -0.02 |
| | Foreign Ownersinp // | 1.31 | 1 18 | 0.021 | 0.36 | 0.25 | -0.13 | 0.37 | -0.06 |
| | Legal Ownership % | 0.048 | 0.050 | -0.075 | -0.085 | -0.139 | -0.180 | -0 154 | -0 191 |
| | | 0.34 | 0.35 | -0.54 | -0.62 | -0.94 | -1.25 | -1.05 | -1.35 |
| | Mixed Control Firms | 0.041 | 0.030 | 0.017 | -0.001 | 0.109 * | 0.110 * | 0.102 | 0.097 |
| | | 0.63 | 0.47 | 0.27 | -0.01 | 1.65 | 1.70 | 1.56 | 1.52 |
| | Age since IPO | -0.047 | -0.039 | -0.050 | -0.055 * | -0.017 | -0.013 | -0.022 | -0.025 |
| | | -1.35 | -1.15 | -1.50 | -1.66 | -0.49 | -0.38 | -0.62 | -0.72 |
| Firm Financials | Size, log Total Assets | 0.000 | 0.006 | 0.002 | 0.009 | 0.026 | 0.025 | 0.040 | 0.041 |
| | | 0.01 | 0.17 | 0.05 | 0.26 | 0.72 | 0.70 | 1.10 | 1.18 |
| | Leverage Debt / Asset | -0.068 | -0.053 | 0.069 | 0.079 | -0.088 | -0.097 | -0.014 | -0.027 |
| | | -1.06 | -0.84 | 1.11 | 1.29 | -1.35 | -1.52 | -0.22 | -0.43 |
| | Performance, ROA | -0.141 ** | -0.128 ** | 0.033 | 0.037 | -0.109 * | -0.113 * | -0.016 | -0.029 |
| | | -2.17 | -1.99 | 0.53 | 0.6 | -1.65 | -1.75 | -0.25 | -0.46 |
| | Dividends per Share | 0.045 | 0.042 | 0.074 *** | 0.071 ** | 0.031 | 0.040 | 0.037 | 0.054 * |
| | | 1.47 | 1.39 | 2.48 | 2.43 | 0.98 | 1.31 | 1.19 | 1.76 |
| | Top Q4, Free Cash Flow | 0.006 | 0.028 | 0.016 | 0.038 | -0.006 | 0.007 | 0.001 | 0.015 |
| | | 0.22 | 0.99 | 0.58 | 1.38 | -0.22 | 0.24 | 0.03 | 0.52 |
| | Market to Book Equity | -0.014 | -0.027 | -0.009 | -0.019 | 0.008 | 0.005 | -0.008 | 0.008 |
| | Duine Fourings DF notic | -0.46 | -0.92 | -0.30 | -0.67 | 0.27 | 0.17 | -0.25 | 0.26 |
| | Price Earnings, PE ratio | 0.026 | 0.035 | -0.013 | -0.008 | -0.003 | -0.015 | -0.029 | -0.039 |
| Deal | Divorcifying Dool | 0.90 | 1.23 | -0.45 | -0.28 | -0.09 | -0.52 | -0.97 | -1.37 |
| Charactoristics | Diversitying Dear | -0.014 | -0.013 | -0.033 | -0.029 | -0.007 | -0.008 | -0.009 | -0.013 |
| Characteristics | Relative Size | -0.47 | -0.43 | -1.14 | -1.01 | -0.22 | -0.25 | -0.29 | -0.43 |
| | Remarke blac | -0.002 | -0.11 | 1.51 | 1 46 | 1 64 | 1.39 | 2 55 | 2 33 |
| | Private Seller | -0.037 | -0.044 | -0.020 | -0.013 | -0.025 | -0.025 | -0.007 | 0.003 |
| | | -1.31 | -1.56 | -0.72 | -0.48 | -0.84 | -0.89 | -0.23 | 0.000 |
| Other Variables | Pre_WTO Admit | -0.054 * | -0.045 | -0.058 ** | 0.078 *** | -0.031 | -0.032 | -0.016 | 0.049 |
| | | -1.75 | -1,48 | -1.93 | 2.62 | -0.98 | -1.02 | -0.50 | 1.58 |
| Market Trading | 30 days momentum | 0.359 *** | 0.396 *** | 0.420 *** | 0.426 *** | 0.032 | 0.026 | 0.038 | 0.024 |
| 0 | | 12.56 | 14.06 | 15.22 | 15.66 | 1.09 | 0.93 | 1.33 | 0.86 |
| | Trading log Volume | -0.036 | -0.048 | 0.037 | 0.009 | -0.029 | -0.037 | 0.016 | -0.005 |
| | | -1.15 | -1,54 | 1.22 | 0.29 | -0.90 | -1.18 | 0.49 | -0.16 |
| | Risk, Total Variance firm | -0.094 *** | -0.088 *** | -0.016 | -0.019 | -0.046 | -0.042 | -0.002 | -0.003 |
| | | -3.29 | -3.13 | -0.60 | -0.69 | -1.57 | -1.46 | -0.07 | -0.12 |
| | Trading, mean 10 day return | 0.207 *** | 0.193 *** | 0.233 *** | 0.214 *** | 0.379 *** | 0.424 *** | 0.388 *** | 0.426 *** |
| | | 7.19 | 6.79 | 8.37 | 7.81 | 12.86 | 14.72 | 13.26 | 14.95 |
| | | | 7 | | | | | | |
| | Observations | 1043 | 1043 | 1043 | 1043 | 1042 | 1042 | 1042 | 1042 |
| | Adjusted R-Square | 0.175 | 0.200 | 0.232 | 0.2526 | 0.139 | 0.177 | 0.153 | 0.1959 |
| | F-value | 10.61 | 12.34 | 14.68 | 16.31 | 8.31 | 10.74 | 9.15 | 12.03 |

Table 12: Regression Results on Determinants of Takeover Performance for Targets

This table presents the results of Multi-regression of target M&A charateristics of 1501 observations during 1997 to 2005. The dependent variables of the regressions are announcement return windows of (-1,0) and (-2,1). There are 22 independent variables in the regressions as listed below. There are 4 groups of independant variables: firm characteristics, deal characteristics, other variables, and market timing. The type of acquisition whether by merger or by tender is not analyzed because almost all firms in this sample are mergers. EW represents equally weighted CAR, and VW represents value weighted CAR,***, **, and * denote significance at the 1%,5%, and 10% level, respectively.

| MARKET MODEL MARKET ADJUSTED RETURN MARKET MODEL MAR | | Event Window, CAR as DV | | (-45 | ,0) | | | (-30,0) | | | |
|--|--|------------------------------|---------------|-----------|----------------|-------------|-----------|-----------------|--------------|------------|--------|
| Variable Type Windows: EW VW EW EW EX EX <th></th> <th></th> <th>MARKET</th> <th>T MODEL</th> <th>MARKET ADJU</th> <th>STED RETURN</th> <th>MARKET</th> <th>MODEL N</th> <th>IARKET ADJUS</th> <th>TED RETURN</th> | | | MARKET | T MODEL | MARKET ADJU | STED RETURN | MARKET | MODEL N | IARKET ADJUS | TED RETURN | |
| Firm Firm Exchange Listing0.000 <th< th=""><th>Variable Type</th><th>Windows:</th><th>EW</th><th>VW</th><th>EW</th><th>VW</th><th>EW</th><th>VW</th><th>EŴ</th><th>VW</th></th<> | Variable Type | Windows: | EW | VW | EW | VW | EW | VW | EŴ | VW | |
| Firm Exchange Listing 0.016 0.026 0.003 0.000 0.006 0.000 Characteristics 0.44 0.19 0.011 0.006 0.001 0.006 0.000 0.001 Characteristics 0.44 0.19 0.011 0.006 0.012 0.008 0.011 0.008 0.001 0.008 0.001 0.008 0.001 0.008 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.003 0.011 0.003 0.011 0.003 0.013 0.003 0.013 0.003 0.013 0.003 0.013 0.003 0.013 0.003 0.010 0.003 0.010 0.003 0.010 0.003 0.010 0.003 0.011 0.003 0.013 0.003 0.011 0.003 0.011 0.003 0.011 0.003 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.0 | | Intercept | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| Firm Exchange Listing -0.010 -0.025 0.000 -0.010 -0.007 0.006 0.000 Characteristic -0.44 -1.09 0.01 -0.56 -0.12 -0.49 0.30 0.0 Private Ownership % 0.051 0.020 0.046 0.017 0.012 0.049 0.031 0.0 Private Ownership % 0.028 0.007 0.017 -0.012 0.001 0.012 0.001 0.012 0.001 Foreign Ownership % -0.07 0.019 0.044 -0.44 0.48 0.037 -0.030 -0.0 Legal Ownership % 0.032 0.005 0.016 -0.018 -0.038 -0.039 -0.01 Mixed Control Firms 0.032 0.052 0.024 0.054 0.054 0.071 0.08 0.061 Firm Financial 52 leg Total Assets 0.02 0.025 0.016 -0.015 0.036 0.066 -0.0 Firm Financials 0.021 0.025 0.010 0.028 0.024 0.049 0.026 0.00 Mixed Control Firms 0.020 0.025 0.010 0.005 0.026 0.026 0.026 0.026 Firm Financials Size le | | | -0.16 | -0.31 | -0.76 | -0.56 | -0.86 | -0.58 | -1.27 | -0.72 | |
| Characteristics .0.44 .1.09 0.01 0.56 0.12 .0.49 0.30 0.00 State Ownership % 0.67 0.26 0.62 0.16 1.39 1.19 1.34 0.00 Private Ownership % 0.028 0.007 0.017 0.0122 0.009 0.017 0.0122 0.003 -0.003 -0.003 Private Ownership % 0.017 0.022 0.009 -0.010 -0.038* 0.037* 0.030 -0.00 -0.70 0.80 0.016 -0.015 0.036* 0.032 0.019 0.00 -1.23 0.13 0.122 0.017* 0.068 0.011* 0.00 0.00 0.015 0.032 0.019 0.00 Mixed Control Firms 0.033 0.051 0.032 0.017 0.013 0.009 0.021 0.006 -0.01 Age since IPO 0.010 0.022 0.021 0.016 0.013 0.023 0.021 0.006 0.006 0.006 -0.01 </td <td>Firm</td> <td>Exchange Listing</td> <td>-0.010</td> <td>-0.025</td> <td>0.000</td> <td>-0.013</td> <td>-0.003</td> <td>-0.010</td> <td>0.006</td> <td>0.002</td> | Firm | Exchange Listing | -0.010 | -0.025 | 0.000 | -0.013 | -0.003 | -0.010 | 0.006 | 0.002 | |
| Bite Ownership % 0.051 0.020 0.046 0.012 0.096 0.081 0.090 0.000 Private Ownership % 0.028 0.007 0.017 0.009 0.017 0.012 0.005 0.00 Foreign Ownership % 0.017 0.022 0.009 0.010 0.038 0.037 0.039 0.037 0.039 0.037 0.039 0.037 0.039 0.037 0.039 0.037 0.039 0.030 | Characteristics | | -0.44 | -1.09 | 0.01 | -0.56 | -0.12 | -0.49 | 0.30 | 0.08 | |
| Private Ovnership 0.67 0.28 0.07 0.19 0.13 1.19 1.34 0.0 0.73 0.19 0.44 -0.24 0.48 0.33 0.14 -0.00 0.73 0.19 0.44 -0.24 0.48 0.33* 0.14 -0.00 -0.70 -0.09 -0.09 -0.015 0.038 -0.03 0.001 -0.032 0.019 0.00 Legal Ownership % 0.032 0.008 0.016 -0.015 0.049 0.032 0.019 0.00 Mixed Control Firms 0.053 0.057 0.054 0.054 0.074* 0.066* 0.071* 0.066 0.01 0.00< | | State Ownership % | 0.051 | 0.020 | 0.046 | 0.012 | 0.096 | 0.081 | 0.090 | 0.065 | |
| Firm Financials Note Wintership % 0.022 0.001 0.011 0.0029 0.011 0.0029 0.011 0.0029 0.001 0.0029 0.001 0.0038 0.0037 0.000 0.000 0.0038 0.0037 0.000 0.000 0.0038 0.0037 0.000 0.000 0.0038 0.0037 0.000 0.000 0.0032 0.001 0.0022 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.0032 0.011 0.003 0.0032 0.011 0.003 0.0032 0.015 0.003 Firm Financials Size log Total Assets 0.022 0.022 0.012 0.004 0.005 0.0068 *** 0.00 Firm Financials Size log Total Assets 0.022 0.025 0.031 0.076 <t< td=""><td></td><td></td><td>0.67</td><td>0.26</td><td>0.62</td><td>0.16</td><td>1.39</td><td>1.19</td><td>1.34</td><td>0.98</td></t<> | | | 0.67 | 0.26 | 0.62 | 0.16 | 1.39 | 1.19 | 1.34 | 0.98 | |
| bit bit <td></td> <td>Private Ownership %</td> <td>0.028</td> <td>0.007</td> <td>0.017</td> <td>-0.009</td> <td>0.017</td> <td>0.012</td> <td>0.005</td> <td>-0.007</td> | | Private Ownership % | 0.028 | 0.007 | 0.017 | -0.009 | 0.017 | 0.012 | 0.005 | -0.007 | |
| Firegin Ownership % -0.017 -0.022 -0.009 -0.010 -0.038 | | | 0.73 | 0.19 | 0.44 | -0.24 | 0.48 | 0.34 | 0.14 | -0.19 | |
| Head Ownership -0.70 -0.90 -0.36 -0.43 -1.66 -1.72 -1.71 Legal Ownership 0.032 0.008 0.016 -0.015 0.000 0.032 0.019 0.030 0.032 0.019 0.030 0.032 0.019 0.030 0.000< | | Foreign Ownership % | -0.017 | -0.022 | -0.009 | -0.010 | -0.038 ** | -0.037 ** | -0.030 | -0.026 | |
| Legit Onlissing ** 0.032 0.003 0.013 0.0032 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.0132 0.013 0.014 0.015 0.010 0.022 0.012 0.016 0.013 0.006 0.021 0.016 0.013 0.006 0.011 0.000 0.015 0.000 0.015 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.001 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.011 0.000 0.001 0.011 0.000 0.0011 0.000 0.011 | | Logal Ownership % | -0.70 | -0.90 | -0.36 | -0.43 | -1.68 | -1.66 | -1.32 | -1.19 | |
| Mixed Control Firms 0.43 0.11 0.22 -0.21 0.44 0.44 0.44 0.30 0.33 0.33 Firm Financials 1.24 1.33 1.28 1.29 1.87 1.70 1.86 1.1 Age since IPO 0.010 0.022 0.012 0.016 -0.013 -0.09 -0.015 -0.00 Size log Total Assets 0.022 0.022 0.010 0.006 0.020 0.012 0.066 -0.00 0.77 0.91 0.36 0.31 0.78 0.47 0.23 -0.00 1.62 0.32 0.024 0.049* 0.056* 0.066 -0.00 0.34 0.50 0.78 0.80 1.71 1.96 2.42 2.2 Performance, ROA 0.022 0.021 0.047 0.047* 0.054* 0.066 -0.0 0.99 0.010 0.425 0.045* 0.046* 0.000 0.005 0.036 0.00 0.005 0.006 0.0 | | Legal Ownership % | 0.032 | 0.008 | 0.016 | -0.015 | 0.030 | 0.032 | 0.019 | 0.007 | |
| Market Control Finits 0.003 1.24 0.003 1.24 0.003 1.28 0.004 0.014 0.006 0.013 0.006 0.009 0.017 0.017 0.010 Firm Financials Size log Total Assets 0.022 0.012 0.016 0.013 0.009 0.015 0.00 Firm Financials Size log Total Assets 0.022 0.015 0.023 0.024 0.049 0.056 0.066 0.007 0.001 0.007 0.001 0.006 0.007 0.0011 0.006 0.001 <t< td=""><td></td><td>Mixed Control Firms</td><td>0.43</td><td>0.11</td><td>0.22</td><td>-0.21</td><td>0.44</td><td>0.49</td><td>0.30</td><td>0.11</td></t<> | | Mixed Control Firms | 0.43 | 0.11 | 0.22 | -0.21 | 0.44 | 0.49 | 0.30 | 0.11 | |
| Age since IPO 0.010 0.022 0.012 0.016 -0.013 -0.009 0.015 -0.00 Firm Financials Size log Total Assets 0.022 0.010 0.008 0.022 0.011 0.008 0.022 0.012 0.006 -0.05 Firm Financials Size log Total Assets 0.022 0.025 0.010 0.008 0.022 0.011 0.006 -0.023 -0.00 Leverage Debt / Asset 0.010 0.015 0.023 0.024 0.049 0.055 0.068 *0.00 Leverage Debt / Asset 0.010 0.015 0.023 0.024 0.047 0.047 0.054 0.068 *0.00 Performance, ROA 0.022 0.023 0.031 0.047 0.047 0.054 0.056 0.068 0.00 Dividends per Share 0.007 0.011 0.004 0.005 0.036 0.011 0.00 Deal Diversifying Deal 0.004 0.002 0.007 0.001 0.006 0.011 | | wixed Control Firms | 0.053 | 0.057 | 0.054 | 0.054 | 0.074 | 0.066 | 0.071 | 0.062 * | |
| Age and PO 0.010 0.022 0.012 0.018 -0.013 -0.09 -0.013 -0.013 Firm Financials Size log Total Assets 0.02 0.025 0.010 0.008 0.020 0.012 0.006 -0.006 Firm Financials Size log Total Assets 0.022 0.025 0.010 0.008 0.020 0.012 0.006 -0.006 Leverage Debt / Asset 0.010 0.015 0.023 0.024 0.049 0.056 0.068 *** 0.00 Performance, ROA 0.022 0.022 0.051 0.047 0.047 0.047 0.055 0.036 0.00 Dividends per Share 0.007 0.014 0.045 0.046 0.000 0.005 0.036 0.00 Market to Book Equity 0.009 0.007 0.011 0.007 0.011 0.004 0.006 0.00 Deal Diversifying Deal 0.010 0.017 0.016 0.013 0.006 0.010 0.007 0.010 <td></td> <td>Ago sinco IBO</td> <td>1.24</td> <td>1.33</td> <td>1.28</td> <td>1.29</td> <td>1.87</td> <td>1.70</td> <td>1.86</td> <td>1.64</td> | | Ago sinco IBO | 1.24 | 1.33 | 1.28 | 1.29 | 1.87 | 1.70 | 1.86 | 1.64 | |
| Firm Financials Size log Total Assets 0.040 0.039 0.040 0.039 0.040 0.030 0.030 0.030 0.030 0.030 0.030 0.030 0.030 0.030 0.030 0.040 0.066 0.000 0.010 0.010 0.015 0.022 0.024 0.049 * 0.056 * 0.068 ** 0.00 Performance, ROA 0.032 0.022 0.021 0.022 0.022 0.024 0.049 * 0.056 * 0.068 ** 0.00 Performance, ROA 0.032 0.022 0.021 0.027 0.02 0.024 0.047 * 0.056 * 0.068 ** 0.00 Market to Book Equity 0.007 0.014 0.045 * 0.046 * 0.000 0.005 0.036 0.00 0.007 0.011 0.00 0.007 0.011 0.00 0.007 0.011 0.00 0.007 0.011 0.00 0.007 0.011 0.00 0.007 0.011 0.00 0.007 0.011 0.00 0.000 0.0 | | Age since if O | 0.010 | 0.022 | 0.012 | 0.016 | -0.013 | -0.009 | -0.015 | -0.014 | |
| Firm Financials Sock of Your Assets 0.022 0.023 0.010 0.002 0.012 0.023 0.012 0.012 0.012 0.023 0.013 0.016 0.012 0.023 0.011 <t< td=""><td>Firm Financials</td><td>Size log Total Assets</td><td>0.40</td><td>0.85</td><td>0.46</td><td>0.00</td><td>-0.55</td><td>-0.36</td><td>-0.66</td><td>-0.60</td></t<> | Firm Financials | Size log Total Assets | 0.40 | 0.85 | 0.46 | 0.00 | -0.55 | -0.36 | -0.66 | -0.60 | |
| Leverage Debt / Asset 0.010 0.015 0.023 0.024 0.049 0.056 0.068 0.063 0.023 0.024 0.049 0.056 0.068 0.063 0.023 0.024 0.049 0.056 0.056 0.068 0.063 0.023 0.024 0.049 0.056 0.068 0.068 0.066 0.068 0.066 0.066 0.066 0.066 0.066 0.067 0.076 0.076 0.07 0.011 0.022 0.021 0.027 0.007 0.011 0.022 0.026 0.007 0.011 0.022 0.026 0.01 0.022 0.026 0.011 0.007 0.011 0.022 0.026 0.011 0.002 0.011 0.007 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 0.006 0.011 <td>r ii iii r inaliciais</td> <td>Size log Total Assets</td> <td>0.022</td> <td>0.025</td> <td>0.010</td> <td>0.008</td> <td>0.020</td> <td>0.012</td> <td>0.008</td> <td>-0.005</td> | r ii iii r inaliciais | Size log Total Assets | 0.022 | 0.025 | 0.010 | 0.008 | 0.020 | 0.012 | 0.008 | -0.005 | |
| Netroge Droft Market 0.010 0.010 0.010 0.010 0.010 0.001 0.000 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 </td <td></td> <td>Leverage Debt / Asset</td> <td>0.110</td> <td>0.015</td> <td>0.30</td> <td>0.024</td> <td>0.78</td> <td>0.47</td> <td>0.23</td> <td>0.19</td> | | Leverage Debt / Asset | 0.110 | 0.015 | 0.30 | 0.024 | 0.78 | 0.47 | 0.23 | 0.19 | |
| Performance, ROA 0.02 0.022 0.021 0.047 0.047 0.047 0.054 0.054 0.076 Dividends per Share 0.075 0.73 1.73 1.60 1.63 1.90 2.71 2.005 Market to Book Equity 0.007 0.014 0.045 0.006 0.005 0.036 0.007 0.29 0.59 1.87 1.90 -0.01 0.22 1.62 1.90 0.29 0.59 1.87 1.90 -0.01 0.22 1.62 1.90 Market to Book Equity 0.005 0.002 0.007 0.007 0.010 0.007 0.011 0.006 0.001 0.007 0.011 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.001 0.001 0.006 0.001< | | Eleverage Debt / Asset | 0.010 | 0.013 | 0.78 | 0.80 | 1 71 | 1.96 | 2.42 | 2 51 | |
| Description 0.022 0.001 0.0047 0.0047 0.0047 0.0047 0.004 0.005 0.000 0.001 0.005 0.003 0.001 0.001 0.001 0.001 0.001 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.006 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 | | Performance, ROA | 0.04 | 0.00 | 0.70 | 0.00 | 0.047 * | 0.054 * | 0.076 *** | 0.079 *** | |
| Dividends per Share 0.07 0.07 0.07 0.045 0.006 0.003 0.036 0.037 0.010 0.022 1.62 1. | | | 0.022 | 0.022 | 1.72 | 1.60 | 1.62 | 1.00 | 0.076 | 0.078 | |
| Diversity of the balance 0.007 0.014 0.003 0.004 0.003 0.001 0.022 1.00 0.020 0.010 0.32 0.34 0.48 0.32 0.52 0.0 0.004 -0.006 -0.009 0.009 0.001 0.004 -0.006 -0.009 -0.009 0.001 0.004 -0.006 -0.009 -0.011 -0.011 -0.011 -0.011 -0.011 -0.011 -0.010 -0.011 -0.012 -0.013 0.006 -0.013 -0.017 -0.015 -0.034 -0.017 -0.025 -0.038 -0.017 -0.025 -0.038 -0.017 -0.025 -0.038 -0.017 -0.025 -0.034 -0.017 -0.025 -0. | | Dividends per Share | 0.75 | 0.73 | 0.045 * | 0.046 * | 0.000 | 0.005 | 2.71 | 2.00 | |
| Market to Book Equity 0.05 0.05 1.07 1.00 0.01 0.021 1.02 1.02 0.20 0.007 0.007 0.010 0.004 -0.002 0.010 0.011 0.004 -0.002 -0.017 -0.013 0.006 0.018 0.011 0.006 0.017 -0.016 -0.021 -0.018 0.017 -0.025 -0.038 0.017 -0.025 -0.038 0.017 -0.025 -0.038 0.017 -0.025 -0.043 0.017 -0.012 -0.014 0.001 -0.011 | | Dividends per Share | 0.007 | 0.014 | 1.87 | 1 90 | -0.01 | 0.003 | 1.62 | 1.67 | |
| Market Door Harry 0.000 0.002 0.001 0.002 0.001 | | Market to Book Equity | 0.29 | 0.09 | 0.007 | 0.007 | -0.01 | 0.22 | 0.011 | 0.008 | |
| Price Earnings, PE ratio 0.010 0.002 0.009 0.009 0.001 0.004 -0.002 -0.009 Deal Diversifying Deal -0.017 -0.11 -0.41 -0.40 0.066 0.19 -0.027 -0.000 Characteristics -0.017 -0.11 -0.41 -0.40 0.066 0.19 -0.27 -0.000 Characteristics -0.019 -0.012 -0.012 -0.013 0.006 -0.008 0.01 0.000 Characteristics -0.80 -1.20 -0.52 -0.54 0.25 -0.38 0.51 0.000 Characteristics -0.043 -0.017 -0.016 -0.021 -0.018 -0.017 -0.025 -0.03 -0.010 -0.011 0.008 -0.000 -0.000 -0.011 -0.025 -0.014 -0.011 -0.008 -0.029 -0.029 -0.029 -0.023 -0.051 *0.024 *0.029 -0.020 -0.014 -0.011 -0.042 *0.029 -0.025 -0.044 -0.0 | | Marine to Doon Equity | 0.000 | 0.002 | 0.007 | 0.007 | 0.018 | 0.007 | 0.52 | 0.000 | |
| Deal Diversifying Deal 0.001 0.002 0.001 0.003 0.015 0.034 0.015 0.028 0.003 0.028 0.003 0.015 0.034 0.015 0.028 0.003 0.028 0.003 0.028 0.003 0.028 0.028 | | Price Earnings, PE ratio | -0.004 | -0.002 | -0.009 | -0.009 | 0.40 | 0.02 | -0.006 | -0.005 | |
| Deal Diversifying Deal -0.019 -0.029 -0.012 -0.013 0.006 -0.008 0.011 0.000 Characteristics -0.019 -0.029 -0.012 -0.013 0.006 -0.008 0.011 0.000 Characteristics -0.80 -1.20 -0.52 -0.54 0.25 -0.38 0.51 0.000 Relative Size -0.010 -0.017 -0.016 -0.021 -0.018 -0.017 -0.025 -0.018 Private Buyer -0.043 -0.77 -0.70 -0.95 -0.84 -0.82 -1.21 -1.1 Other Variables Pre_WTO Admit -0.037 -0.029 -0.008 0.058 ** -0.051 ** -0.042 * -0.029 0.008 Other Variables Pre_WTO Admit -0.037 -0.029 -0.008 0.058 ** -0.051 ** -0.042 * -0.029 0.008 Trading-30 days momentum 0.029 0.026 0.025 0.015 0.034 0.015 0.028 0.028 | | | -0.17 | -0.11 | -0.41 | -0.40 | 0.06 | 0.19 | -0.27 | -0.25 | |
| Other Variables Pre_WTO Admit -0.037 -0.029 -0.016 -0.017 -0.016 -0.017 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.010 -0.025 -0.010 -0.012 -0.014 0.001 -0.011 0.008 -0.008 -0.021 -0.014 0.001 -0.011 0.008 -0.020 -0.012 -0.014 0.001 -0.011 0.008 -0.020 < | Deal | Diversifying Deal | -0.17 | -0.029 | -0.012 | -0.013 | 0.00 | -0.008 | 0.011 | 0.005 | |
| Relative Size 0.000 0.017 0.016 0.014 0.018 0.010 0.017 0.016 -0.43 -0.077 -0.016 -0.021 -0.018 -0.017 -0.021 -0.018 -0.017 -0.021 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.018 -0.017 -0.025 -0.018 -0.021 -0.018 -0.021 -0.012 -0.012 -0.011 0.008 -0.020 -0.012 -0.014 0.001 -0.011 0.008 -0.020 -0.012 -0.014 0.001 -0.011 0.008 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.020 -0.021 -0.012 -0.014 0.051 ** -0.042 * -0.029 -0.020 -0.020 -0.020 -0.021 -0.012 -0.015 -0.021 -0.012 -0.012 -0.012 -0.012 | Characteristics | Diversitying Dear | -0.013 | -0.025 | -0.52 | -0.54 | 0.000 | -0.38 | 0.51 | 0.003 | |
| Normalization 0.010 0.010 0.011 0.010 0.011 0.002 0.002 0.008 0.058 *** -0.051 *** -0.042 * -0.029 0.002 0.002 0.015 0.034 0.015 0.028 0.002 Trading-30 days momentum 0.029 0.025 0.025 <th colspa="</td"><td>Characteristics</td><td>Relative Size</td><td>-0.00</td><td>-0.017</td><td>-0.016</td><td>-0.021</td><td>-0.018</td><td>-0.017</td><td>-0.025</td><td>-0.023</td></th> | <td>Characteristics</td> <td>Relative Size</td> <td>-0.00</td> <td>-0.017</td> <td>-0.016</td> <td>-0.021</td> <td>-0.018</td> <td>-0.017</td> <td>-0.025</td> <td>-0.023</td> | Characteristics | Relative Size | -0.00 | -0.017 | -0.016 | -0.021 | -0.018 | -0.017 | -0.025 | -0.023 |
| Private Buyer 0.02 -0.020 -0.012 -0.014 0.001 -0.011 0.001 0.011 0.002 0.029 0.008 0.058 ** -0.051 ** -0.042 * -0.029 0.029 0.021 0.023 2.41 -2.23 -1.85 -1.29 1.17 Trading-30 days momentum 0.029 0.025 0.015 0.028 0.029 <th colspa="</td"><td></td><td></td><td>-0.43</td><td>-0.77</td><td>-0.70</td><td>-0.95</td><td>-0.84</td><td>-0.82</td><td>-1.21</td><td>-1 13</td></th> | <td></td> <td></td> <td>-0.43</td> <td>-0.77</td> <td>-0.70</td> <td>-0.95</td> <td>-0.84</td> <td>-0.82</td> <td>-1.21</td> <td>-1 13</td> | | | -0.43 | -0.77 | -0.70 | -0.95 | -0.84 | -0.82 | -1.21 | -1 13 |
| Other Variables Pre_WTO Admit -0.92 -0.89 -0.55 -0.64 0.05 -0.53 0.40 -0.02 0.147 -0.037 -0.029 -0.008 0.058 ** -0.051 ** -0.042 * -0.029 0.008 1.147 -1.17 -0.31 2.41 -2.23 -1.85 -1.29 1. Market Trading 0.029 0.026 0.025 0.015 0.034 0.015 0.028 0.028 | | Private Buver | -0.021 | -0.020 | -0.012 | -0.014 | 0.001 | -0.011 | 0.008 | -0.003 | |
| Other Variables Pre_WTO Admit -0.037 -0.029 -0.008 0.058 ** -0.051 ** -0.042 * -0.029 0.029 1.17 -0.31 2.41 -2.23 -1.85 -1.29 1. Trading-30 days momentum 0.029 0.026 0.025 0.015 0.034 0.015 0.028 0.028 | | | -0.92 | -0.89 | -0.55 | -0.64 | 0.05 | -0.53 | 0.40 | -0.15 | |
| -1.47 -1.17 -0.31 2.41 -2.23 -1.85 -1.29 1. Trading-30 days momentum 0.029 0.026 0.025 0.015 0.034 0.015 0.028 0.0 | Other Variables | Pre_WTO Admit | -0.037 | -0.029 | -0.008 | 0.058 ** | -0.051 ** | -0.042 * | -0.029 | 0.031 | |
| Trading-30 days momentum Market Trading 0.029 0.026 0.025 0.015 0.034 0.015 0.028 0.0 | | | -1.47 | -1.17 | -0.31 | 2.41 | -2.23 | -1.85 | -1.29 | 1.38 | |
| Market Trading 0.029 0.026 0.025 0.015 0.034 0.015 0.028 0.0 | | Trading-30 days momentum | | | 4 | | | | | | |
| | Market Trading | | 0.029 | 0.026 | 0.025 | 0.015 | 0.034 | 0.015 | 0.028 | 0.005 | |
| 1.26 1.15 1.14 0.68 1.63 0.71 1.34 0. | | | 1.26 | 1.15 | 1.14 | 0.68 | 1.63 | 0.71 | 1.34 | 0.26 | |
| Trading log Volume -0.035 -0.027 0.014 0.010 -0.006 -0.001 0.036 0.0 | | Trading log Volume | -0.035 | -0.027 | 0.014 | 0.010 | -0.006 | -0.001 | 0.036 | 0.030 | |
| -1.34 -1.03 0.55 0.40 -0.24 -0.06 1.54 1. | | | -1.34 | -1.03 | 0.55 | 0.40 | -0.24 | -0.06 | 1.54 | 1.29 | |
| Risk, Total Variance firm -0.021 -0.017 0.006 0.008 -0.017 -0.014 0.007 0.0 | | Risk, Total Variance firm | -0.021 | -0.017 | 0.006 | 0.008 | -0.017 | -0.014 | 0.007 | 0.008 | |
| | | T 11 C 1 | -0.93 | -0.77 | 0.28 | 0.37 | -0.80 | -0.70 | 0.33 | 0.39 | |
| Trading, mean 10 day 0.495 *** 0.497 *** 0.519 *** 0.517 *** 0.593 *** 0.609 *** 0.618 *** 0.6 | | Trading, mean 10 day | 0.495 *** | 0.497 *** | * 0.519 *** | 0.517 *** | 0.593 *** | 0.609 *** | 0.618 *** | 0.625 *** | |
| return 21.88 22.00 23.31 23.34 28.23 29.41 30.24 30. | | return | 21.83 | 22.00 | 23.31 | 23.34 | 28.23 | 29.41 | 30.24 | 30.90 | |
| | | Observations Hard | 1500 | 4500 | 4500 | 1500 | 1501 | 1504 | 1501 | 1501 | |
| Observations User 1003 1003 1003 1003 1001 1501 1501 1501 | | Adjusted D. Square | 1503 | 1503 | 1503 | 1503 | 1501 | 1501 | 1501 | 1501 | |
| Auguster 0.240 0.244 0.207 0.214 0.343 0.307 0.384 0.3 Evalue 23.560 24.06 0.701 27.02 20.20 42.49 45.55 49 | | Aujusieu A-oquare F-voluo | 23.560 | 24.06 | 0.207 27.01 | 0.274 | 20.049 | 12 19 | 0.384 | 48.04 | |
| | | i valut | 20.000 | 24.00 | 27.01 | 21.32 | 55.23 | -+ ∠ .+0 | -J.JJ | +0.04 | |