

The Effects of Mergers and Acquisitions:
Evidence from China

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ABSTRACT

The effects of Mergers and Acquisitions:

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This paper studies 437 merger and acquisition (M&A) deals initiated by Chinese companies listed on either the Shanghai or Shenzhen Stock Exchanges between 1997 and 2007. By examining the wealth effects and firm performance of Chinese M&As, we attempt to investigate the underlying motives behind Chinese corporate acquisitions. We find that shareholders of the acquiring firms realize significantly positive abnormal returns in the short term around the announcement of the deal, contrary to most findings in the U.S. market. Our results suggest that Chinese acquisitions are mainly driven by synergy motives. Our findings suggest that, in the long term, the operating performance of acquiring firms does not improve after the acquisition, although shareholders who buy and hold the acquiring firm's stock realize positive returns. Furthermore, results of cross-sectional regressions of abnormal returns around the announcement date show that acquisitions by highly profitable firms result in reduced shareholder wealth, while friendly acquisitions and acquisitions of joint-venture targets tend to increase shareholder wealth. We find some evidence that industry relatedness increases shareholder wealth which is consistent with prior U.S. studies. However, methods of payment, acquirers with State ownership and cross-border acquisitions have insignificant effects. While Chinese M&A show positive gains for the acquirers, the evidence on the determinants of these gains is mixed.

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1. Introduction

Mergers and acquisitions (M&As) are among the largest and most important investments a company makes. These events provide a unique window into how strategic managerial decisions are made that impact firm value in the long-term. Because of their strategic nature and long-term impact, and the fact that these decisions constitute a major operational and financial restructuring of the company, M&As have been the focus of academic research for a long time and continue to dominate the research agenda even today.

M&As have been studied in a number of developed and emerging countries. Our understanding of how the decision making process that goes along with an M&A transaction impacts long-term shareholder wealth creation, however, is largely based on studies on M&As in developed markets such as the United States and the United Kingdom. In recent years, researchers have also begun to focus their interest on corporate control activities in emerging markets. Literature has evolved extensively over the last few decades with numerous M&A theories having been proposed and empirically tested.

Three major theories have been frequently cited and are now widely accepted as possible motives for M&As. First, the synergy theory, one of the most dominant M&A theories, has been proposed by Coase (1937). The theory suggests that takeovers will only be undertaken if the combined company is more valuable than the two individual companies. Second, in contrast to the synergy hypothesis, research related to the disciplinary motive argues that M&As are a source of value reduction. The model of Jensen (1986) concludes that free cash flow is a source of value-reducing decisions, such

as mergers and acquisitions. Managers are likely to engage in investment projects with zero net present value with their own interest in mind. Likewise, Shleifer and Vishny (1989) argue that managerial entrenchment increases agency costs leading to value-reducing decisions. Thus, the agency cost argument posits that M&As lower firm value rather than enhance operational and financial synergy. Third, Roll's (1986) hypothesis about managerial hubris indicates that takeovers produce no gains to shareholders and occur because acquirer managers make mistakes in estimating gains.

Although the classical theories suggest that M&A activities are driven by economies of scale or synergy motives, substantial empirical studies associated with M&As are not consistent with the wealth creation hypothesis as a whole. Loughran and Vijh (1997) conclude that when looking at wealth gains as a motivation for acquisitions, researchers have found three patterns: (i) target shareholders earn significant positive abnormal returns in acquisitions, (ii) acquiring shareholders earn little or no abnormal returns from tender offers, and (iii) acquiring shareholders earn negative abnormal returns from mergers. Both short-term and long-term share price performance suggests that corporate mergers and acquisitions are not value-enhancing activities, as is proposed in the synergy theory as a motive for acquisitions. For example, Frank and Harris (1989) examine the effect on shareholders' wealth for 1,800 UK takeovers for the period 1955 to 1985 and find that around the announcement date, target shareholders gain an average return of 25% while bidders earn zero returns. Summarizing the empirical evidence from more than 40 studies, Jensen and Ruback (1983) conclude that targets earn an average abnormal return of 29% in tender offers and 16% in mergers; for acquirers the abnormal returns are 4% in tender offers and zero in mergers. As noted previously, Roll (1986)

proposes the managerial hubris hypothesis to explain the negative wealth effects for acquiring firm shareholders. Evidence from Dodd (1980), Firth (1980), and Mikkelson and Ruback (1985) regarding the announcement wealth effects for acquirers indicates that agency costs and managerial hubris are the possible reasons for the statistically significant negative abnormal returns earned by acquiring firm shareholders. To summarize, most previous studies indicate that the most of the gains in M&A transactions go to the target firms, while acquiring firms earn zero or negative returns.

Unlike developed markets, where studies and practices of M&As have been well-established, the Chinese M&A market has just been beginning to emerge in the past few years. From its modest beginnings and despite its short history, China's M&A market has achieved enormous growth in the last two decades and has particularly accelerated in the last ten years. In 1993, the China Bao'an (SZ), Shanghai Yan Zhong Industrial (SH) deal marked the commencement of M&A activity in China. Since 1997, the number of mergers and acquisitions started to grow in China, with a rapid expansion in China's M&A activities occurring after year 2000, when M&As covered many industries, including some cross-border transactions. It has also been documented that the number of newly public firms created after a combination exceeded the number of IPO firms in the same year. Thus, it appears that there is a growing trend that more and more companies in China are choosing to go public via a mergers or acquisition.

According to National Statistics, in 2008, China's economy was the most prominent among high-growth international economic entities in terms of its involvement in the M&A market. Compared with the same period in 2007 in which China's M&A

volume set a record high, the growth rate of China's M&A volume in 2008 was 20% and reached US\$167 billion. With respect to cross-border M&As, the involvement of large-scale state-owned enterprises (SOEs) in M&As was about US\$49 billion, a significant increase of 74% compared with the previous year. By comparison, attributed to the financial crisis triggered in 2008, global merger and acquisition volume dropped by approximately 30% and set the lowest record of US\$2.89 trillion since 2005. China is beginning to be recognized as an emerging M&A giant in the global market. Enterprises of China are no doubt making an impact in the global market in terms of maximizing their scale of business, optimizing allocation of resources and enhancing performance of management.

Research on the wealth effects of M&A in the Chinese market is beginning to emerge. For example, Boateng et al. (2008) analyze the short-term performance and motivation of 27 cross-border M&As undertaken by Chinese firms in the period from 2000 to 2004. They find that acquiring firms in China realize significant positive wealth gains, consistent with the synergy hypothesis. Additionally, a more comprehensive study undertaken by Wang (2007) reports that the performance of acquiring firms in the Chinese stock market decreases after an acquisition. A recent paper by Chi et al. (2009) studies the financial performance and characteristics of 1,148 M&As by Chinese listed firms for the period 1998 to 2003. They find that during a period of 6 months before and upon M&A announcements, acquiring firms realize significantly positive abnormal returns, while the long-term abnormal returns (6 months) after M&A transactions are insignificant. In addition to the wealth effects, they find evidence that the political advantages of acquiring firms, interprovincial M&A and cash bids have an impact on an

acquiring firm's performance. Although there are a growing number of studies that focus on Chinese acquiring firms, compared with the evidence on M&As in Western countries, our understanding of the motives, wealth effects and the performance of Chinese acquiring firms is still very limited and sparse. As the market for corporate control grows in volume (i.e. in terms of the number of deals and value of transactions), the need for a better understanding of the determinants of M&As in one of the fastest growing emerging markets will only increase.

The need for more comprehensive research on Chinese acquiring firms cannot be overstated. Since the economic environment in China differs greatly from that in the West, and China's M&A market is still at an initial stage, the underlying factors that drive M&A processes and performance would differ greatly from those in the West. In addition, given the increasing attention that China's economy has attracted from the world, there is growing demand for research in order to help the world understand the characteristics of M&A activities by Chinese acquiring firms with targets both at home and abroad. It is also interesting and necessary to analyse and understand how the classical M&A theories and motives developed in the West apply in the Chinese context.

In our paper, the motivation to examine the stock price performance of Chinese acquiring firms stems from attempts to answer the following questions:

1. Do mergers and acquisitions create value for shareholders of acquiring companies? What are the major characteristics of Chinese M&As?
2. Do classical M&A theories apply in China, and if so how?

3. What factors, such as the method of payment, location of targets, industries, and ownership structure of acquiring firms, affect the wealth effects of acquiring firms, and how?

4. To what extent is the empirical evidence on M&As in China comparable or different from the evidence in the U.S. and other developed countries?

We are interested in unfolding the potential explanations of the wealth effects of M&As and the long-term performance implications of Chinese M&As. We believe that our findings contribute to a better understanding of the workings of the corporate control market around the world and the existing M&A empirical literature, with a special emphasis on China's M&A market.

A large set of existing empirical studies of M&A activities considers the performance and price effect in terms of target companies. In our study, since the vast majority of target firms in domestic Chinese mergers and acquisitions are unlisted firms, we limit our focus on acquiring firms listed on mainland China's Shenzhen and Shanghai Stock Exchanges. We first characterise the main features of domestic and cross-border corporate takeovers involving Chinese listed firms for the period 1997 to 2007 and classify the acquiring firms into subgroups according to their method of payment, the location of the target, the industry relatedness between the acquirer and the target and the type of ownership. Then, we investigate the short-term and long-term share price performance to examine whether M&As create value for acquirer shareholders. We also test the long-term post-acquisition operating performance of acquiring firms. In addition, we examine how the wealth effects vary across subgroups and undertake a cross-sectional

analysis to investigate the factors that drive the process and performance of M&A activity in China.

Using data on 437 M&A deals initiated by Chinese listed companies over the period 1997 to 2007, we find that shareholders of Chinese acquiring firms, on average, realize significant positive abnormal returns around the announcement date, which is inconsistent with prior U.S. evidence. Moreover, our results suggest that, in the long term, the market performance of acquiring firms exceeds that of the overall stock market. Thus, shareholders who buy and hold acquirers' stocks for at least one year would gain positive returns. On the other hand, we find that, in general, mergers and acquisitions in China do not improve firm's operating performance. In particular, the improvement in operating performance of acquiring firms only occurs in the announcement year but declines subsequently. This result is consistent with previous studies on Chinese M&As (Wang, 2007; Feng & Wu, 2001; Wan et al., 2001). Our evidence on long-term operating performance is consistent with some findings by Western scholars (Meeks, 1977; Ghosh, 2001). We find no significant improvement in performance from three years prior to the bid to three years following the bid. The results of our cross-sectional analysis suggest that Chinese mergers and acquisitions do not have distinct patterns. State-ownership status and cross-border acquisitions have an insignificant effect on stock returns around the announcement. Additionally, the results show that profitability before the acquisition, changes in debt capacity, industry relatedness, friendly offers, and target status have some effects on shareholder wealth around the announcement.

This paper is organized as follows. The following section reviews the related theories and provides some background information on China's capital market. Section 3 derives the hypotheses. Section 4 describes the methodology and dataset. Section 5 provides the empirical results and Section 6 concludes.

2. Literature review

2.1. Theories of Mergers and Acquisitions

Research on mergers and acquisitions has been ongoing in developed capital markets for a very long time. M&A activity serves as a catalyst in restructuring and integrating industries in any market economy and leads to long-term performance changes for the firms involved in such transactions. Given their importance and the significant impact they have, researchers have been interested in exploring this fascinating discipline of corporate finance from a number of different perspectives. Both theoretical models as well as empirical studies have received their fair share of attention from researchers.

In general, M&A theories can be divided into two categories. The first category deals with value-maximization motivations in which M&A strategy is considered to be the same as an investment decision with the expectation that future cash flows of the acquiring firm will increase. The second category deals with non-value maximization behaviour by the management of acquiring firms (Halpern, 1983). Managerial self-interest and hubris can lead to non-value maximization acquisition decisions. Generally speaking, existing theories and evidence suggest that corporate control through M&A activity is beneficial for shareholders of target firms but not so for acquiring firms.

The synergy motive suggests that takeovers occur because the total value resulting from merging the resources of the two firms is larger than the sum of value for each firm. Put another way, firms are motivated to engage in takeovers because the market value of the firm after merging is larger than the total market values of the two firms prior to merging. With respect to the synergy motive in M&A, three broad

explanations for the source of the gains have been identified: operational synergy, financial synergy, and collusive synergy (Chatterjee, 1986).

The agency motive suggests that takeovers occur because managers of acquiring firms attempt to undertake investment projects to meet their self-interest as well as to increase their influence in managing the firm's resources at the cost of shareholders' welfare. In line with the agency motivation, Berle and Means (1932) developed the corporate control hypothesis which suggests that managers who control the firm, without significant investment of wealth in the firm, make decisions at the cost of maximizing the market value of equity to shareholders. Jensen and Meckling (1976) further show that when managers hold only a small portion of their company's stock, then managers as the agents of the shareholders, have the incentive to make decisions which diverge from the interest of existing shareholders. However, because the costs to restrict behaviour by employing monitors and writing and enforcing contracts are high, managerial self-interested behaviour exists in the form of substantial perquisite consumption or attaining marginal performance at work.

In addition, the free cash flow theory of Jensen (1986) suggests that mergers and acquisitions are value-destroying rather than value-maximizing activities, since managers of firms with large free cash flows are likely to engage in unprofitable projects with a small benefit or no benefits instead of using the resources to return the cash flow to shareholders. The theory implies that such firms earn lower or even negative gains from mergers and acquisitions.

The hubris hypothesis suggests that the net gain for the combined firm is zero. In other words, takeovers occur because acquiring firm managers make mistakes in

evaluating target firms. Therefore, the positive gains to target firms are offset by the negative gains to acquirer's shareholders. As Roll (1986) proposes, the hubris hypothesis provides an explanation for the occurrence of non-positive gain takeovers documented by a number of empirical studies. Firstly, hubris hypothesis contends that managers of acquirer firms who are willing to offer too much for their targets do so as they overestimate the current market value of target firms. Secondly, the hubris hypothesis implies that there are no gains for the combined firms because of acquirer managers' incorrect decisions. Therefore, Roll suggests that, in takeovers which are the result of managers' mistakes, the payment to the target indicates a value transfer from the bidder to the target. Since the total gains are zero, any positive gains earned by the target firms as a premium would be offset by a loss to the acquiring firms. It follows that the higher the target gain, the lower the acquirer gain.

2.2 Empirical Studies: Evidence on Acquirers' Market Performance

2.2.1 Evidence on Short-term Market Performance

The bulk of research on the financial performance of mergers and acquisitions has focused on stock returns around the merger announcement. In addition, majority of empirical studies has been confined to U.S. and U.K. firms. The findings of prior studies that have examined abnormal returns to the bidder firms of U.S. and U.K. are mixed. Among the empirical studies on the US market, Morck et al. (1990), Loderer and Martin (1990), Lang et al. (1991), Moeller et al. (2004, 2005), Masulis et al. (2007), Asquish (1983), Schwert (2000) find zero or positive shareholder returns around acquisition announcements. On the other hand, Franks et al. (1991), Mulherin and Boone (2000), Andrade et al. (2001), Dodd (1980), Mikkelsen and Ruback (1985), Healy et al. (1992)

find negative abnormal returns around the announcement. Using a sample of UK takeovers, Firth (1980) finds that bidding firm shareholders in the U.K. suffer significant negative returns around the announcement date. Other UK-based studies, such as Sudarsanam et al. (2003), report evidence that is consistent with the hubris hypothesis. Conversely, Franks et al. (1977), Franks and Harris (1989), and Higson and Elliott (1998) report a positive wealth effect for bidders on the announcement date.

Drawing on a review of more than forty studies that examine the stock price effect around the announcement date of M&As, Jensen and Ruback (1983) conclude that bidders, on average, earn zero abnormal returns. Bruner (2002) summarizes the evidence of 130 studies from 1971 to 2001 and also concludes that bidders' return is around zero, confirming Jensen and Ruback's (1983) finding.

In addition to the U.S. and U.K., a number of empirical studies have examined M&A in other developed countries in Europe, Canada, Japan, and Australia, among others. In contrast with the general evidence reported for U.S. M&As, the studies by Eckbo (1986) and Eckbo and Thorburn (2009) which investigates the valuation effects of Canadian mergers and acquisitions during 1964 to 1983, suggest that for all deals in Canada, both the acquirers as well as the targets realize a large and significant positive return. Taking European countries as a whole, Goergen and Renneboog (2004), Martynova and Renneboog (2008), and Faccio and Stolin (2006) document that acquiring firms have positive shareholder returns, on average. In addition, Campa and Hernando (2004) also present a positive return for European acquiring firms although it is insignificant. By focusing on M&A deals by French firms, Eckbo and Langohr (1989) report an insignificantly positive return for bidding firm shareholders.

For their counterparts in Japan, bidders show a positive abnormal return around the announcement date. For example, Pettway and Yamada (1986), examine the period 1977 to 1984 and find significantly positive bidder returns around the announcement date. Kang et al. (2000) confirm the positive cumulative abnormal bidder returns with a 2-day CAR of 1.17%. To conclude, in contrast to prior U.S. evidence, previous research on domestic mergers in Japan shows that acquirer firms realize a positive effect up to the date of the announcement. This effect turns negative after the actual announcement date (Van Schaik et al., 2004).

2.2.2 Evidence on Long-term Market Performance

Several studies have examined the long-term stock returns following acquisitions. Jensen and Ruback (1983) document that the difference between short-term and long-term returns results from the fact that long-term performance studies may be subject to methodological problems. Martynova and Renneboog (2008) further conclude that the magnitude of the M&A effect on the stock prices strongly depends on the estimation techniques used to predict the benchmark return. A number of articles provide strong evidence of negative post-merger performance. For example, Agrawal et al. (1992) report significant negative five-year cumulative average abnormal returns (CAARs) relative to a size and beta control. Loughran and Vijh (1997) find a statistically significant five-year buy-and-hold return of -0.159 under a size and book to market adjustment. Meanwhile, they document that M&As of all-cash bids yield positive returns, whereas equity bids lead to significant negative long-term returns. In addition, Bradley and Sundaram (2004) find evidence that the two-year post-announcement returns in takeovers of a public target are insignificant from zero, but are significantly negative when the target is private.

By contrast, two studies on long-term performance with regard to related and unrelated acquisitions find positive gains. Haugen and Udell (1972) show that bidders realize significant positive abnormal returns over the four-year period from both types of takeovers, but bidders which acquire targets in unrelated industries earn higher gains. Similarly, Eckbo (1986) finds that one-year CAARs from diversifying takeovers outperform the ones from industry-related bids.

In contrast to the work on developed countries, studies on M&As by firms in developing countries are few. As an initial empirical study of international acquisitions by firms from a developing country, Malhotra and Zhu (2008) examine 96 cross-border acquisitions by Indian firms in the period 1999 to 2005 and find that shareholders of acquiring firms earn significant positive gains from M&A activity in the short term. However, in the long term, a post-acquisition performance shows that the value of acquiring firms decreases.

2.3. Empirical Studies: Evidence on Acquirers' Operating Performance

Several studies have also examined changes in the operating performance of acquiring firms after an acquisition. Because the choices of benchmarks and measures vary for operating performance studies (Barber & Lyon, 1996) and the susceptibility of accounting information under the different accounting policies (Stanton, 1987), the evidence is inconclusive from the developed and developing markets.

For example, Healy et al. (1992) use post-merger accounting data to measure acquisition-induced improvements in cash flow performance of a sample of 50 largest mergers in the U.S. They find that cash flow performance improves following

acquisitions. However, by adopting the approach used to measure long-term abnormal performance by Barber and Lyon (1996), Ghosh (2001) argues that no evidence of a performance improvement is found after acquisition. In general, U.S. evidence of long-term operating performance tends to conclude that acquisitions are not value-maximizing activities and that acquisitions do not lead to performance improvement. Other than the U.S. evidence, by examining performance of 233 UK acquirers between 1964 and 1972, Meeks (1977) also finds that profitability increased in the acquisition year but decreased every subsequent year over a five year period. Similarly, Dickerson et al. (1997) examine U.K. acquirer performance for the period of 1948 to 1977 and find that acquisitions have a negative effect on profitability measured by the return on assets (ROA). However, other UK-based studies on acquisitions in the 1980s (e.g. Manson et al., 1993; Chatterjee & Meeks, 1996; Manson et al., 2000; Cosh et al., 2005; Powell & Stark, 2005) report significant improvement in performance. On the other hand, for developing market studies, for example, Rahman and Limmack (2004) find that Malaysian acquisitions during the period 1988 to 1992 resulted in improvements in the long-term operating cash flow performance from the increases in return on sales and in asset turnover. Ramakrishnan (2008) studies 414 mergers between 1993 and 2005 in India and finds that mergers in India lead to an improvement in post-acquisition operating performance as measured by operating cash flows.

2.4. Evidence on Chinese M&A Activity

During the last decade, with the rapid growth of China's economy, there has been a growth in the amount of published work on the Chinese market in an attempt to explore the performance and characteristics of M&A activities in this rapidly emerging market.

The findings in these studies provide us with the initial insight on the implications and performance of M&As by Chinese firms. However, the research and our understanding of the corporate control market in China still lags significantly when compared with the vast body of knowledge for developed markets. Most China-based M&A studies have examined the cross-border M&As through which firms in developed countries have invested in the Chinese market directly.

Research on the motives and performance of Chinese acquirers is beginning to emerge. For instance, the work of Boateng et al. (2008) is believed to be the initial empirical analysis on the motives and performance of Chinese cross-border M&As. Using a sample of 27 Chinese cross-border M&As during the period 2000 to 2004, they test the short-term performance of Chinese acquiring firms by examining the abnormal returns. They conclude that cross-border M&As create value for Chinese acquiring firms. In addition, Wang (2007) takes the first step to search for motives and effectiveness of Chinese mergers and acquisitions by analyzing the relationship between corporate governance, earnings management and the performance, and valuation of acquiring firms. This study was carried out using a sample of 618 acquisitions by Chinese listed companies. The results show that M&As by Chinese listed firms are mainly driven by the agency or hubris motive.

Chi et al. (2009) consider the performance and characteristics of 1148 M&As on the two Chinese stock exchanges from 1998 to 2003. The study finds that during a period of 6 months before and upon the M&A announcement, acquiring firms realize significant positive abnormal returns, while the long-term abnormal returns (6 months) after the M&A announcement are insignificant. The result of their cross-sectional analysis shows

that the political advantages of acquiring firms, cross-province M&As and cash bids have positive impact on acquiring firms' performance. Finally, the authors conclude that the profitability change of acquiring firms before and after the merger shows that the acquisition does not improve the fundamentals of Chinese acquiring firms, at least not in the short-run.

Results on the long-term operating performance are mixed. Operating performance increases in the announcement year and the next year but then decreases in the following years as documented by Feng and Wu (2001) and Wan et al. (2001). By using and comparing eleven operating performance indicators, Wang (2007) concludes that the operating performance of acquiring firms decreases significantly after the acquisition, especially in the long-term.

2.5. Background of China's Capital Market

China's capital market is an emerging market. It has been formed by the re-establishment of its two stock markets, the Shanghai Stock Exchange in December 1990 and the Shenzhen Stock Exchange in July 1991.

To date, in addition to the two stock exchanges, there are three commodity futures exchanges (the Dalian Commodity Exchange, the Shanghai Future Exchange, and the Zhengzhou Commodity Exchange) and one financial future exchange (the China Financial Future Exchange) in China. Meanwhile, there are securities such as stocks (namely, A-shares, B-shares and H-shares, etc.), bonds (T-bonds, corporate bonds, enterprise bonds, and convertible bonds), securities investment funds, warrants and commodity futures available in this emerging market.

Although China's capital market is a relatively new one, during the past two decades, the size of the market has expanded rapidly and dramatically, the regulatory system has continued to improve and the market participants have become gradually more experienced. So far, its stock market ranks second in Asia following the Japanese market. At the end of 2007, there were 1,550 companies with 2,241.7 trillion common shares traded on China's two stock exchanges, nearly 30 times more than the number of companies traded in 1992. At the end of 2007, the market capitalization reached RMB 32.71 trillion (USD 4.33 trillion), an increase of 265% from the end of 2006. By that time, China's stock market ranked third in the world by market capitalization.

The China Securities Regulatory Commission (CSRC) is China's central regulatory body established in October, 1992. It is authorized to supervise and regulate the Chinese securities markets in accordance with the law. Since 1992, the functions of CSRC have been strengthened and clarified gradually along with the reform of China's securities regulatory system. The main functions of CSRC are as follows. First, it builds up a direct leadership over securities markets by establishing a centralised supervisory system for China's securities markets. Second, it supervises the market participants by formulating market policies and standards. Third, it is obligated to increase the ability to prevent financial crisis.

As we know, China's market has its unique features compared with its Western counterparts. Prior to 1978, SOE existed for a long time as the unique form of Chinese enterprises under the planned economy. Since 1978, a year that marked the transition of China's economy from planned to market-oriented, China's SOEs has been transformed significantly. Since 1978, SOEs reforms have experienced three successful phases. First,

the Chinese government authorized managers of SOEs more autonomy to pursue firm's profit and growth. Second, company's ownership and management have been gradually separated so that managers are responsible for companies' profits and losses as well. Third, large-scale SOEs are being transformed into modern corporations. In the third phase, some of the largest SOEs listed on Chinese Stock Exchanges, although the State still hold two-third of the shares in the listed firms. By the end of 2007, more than 75% of the listed firms on the Shanghai and Shenzhen Stock Exchanges were SOEs.

China's stock market has other distinct features. First, China's common stocks are classified into A-shares, B-shares and H-shares. A-shares and B-shares are issued and traded on the Shanghai and Shenzhen Stock Exchanges. Trading of A-shares is in Chinese currency and restricted only to domestic investors, while B-shares are traded and subscribed in foreign currencies and available only to foreign investors. The H-shares are issued and traded on the Hong Kong Stock Exchange for all investors worldwide, except for those who hold a Chinese passport.

Second, the Chinese stock market has a unique share ownership structure. Under China's special share segmentation system, most of the listed companies have three categories of shares: State-owned shares, which are held by the State or State controlled companies, legal person shares, which are held by a corporation, and A-shares or B-shares held largely by individuals which are tradable shares on the Shanghai and Shenzhen Stock Exchanges. By the end of 2004, only about one-third of the shares of a listed company were freely traded as A-shares or B-shares on China's stock exchanges. The remaining two-thirds of the shares were non-tradable shares held by both the State and the legal-person shareholders. In recent years, the non-tradable shares of listed

companies have decreased sharply due to the large-scale reform on non-tradable shares initiated by CSRC since 2005. As of 2007 year end, 98% of total listed companies had either initiated or completed the reform on non-tradable shares. Furthermore, since mid-2006, all new IPOs on Chinese stock exchanges do not have non-tradable shares any longer. The world has witnessed China's efforts to gradually turn its capital market into one that is fundamentally consistent with international standards in terms of its legal framework, regulatory regime, and trading regulations.

3. Hypotheses

We consider the unique characteristics of the Chinese capital market and share ownership structure of listed firms to construct our hypotheses. One of the major goals in this study is to identify the motives for M&As by Chinese listed companies and factors that may affect the wealth effects of acquiring firms.

Common hypotheses relating to M&A motives include synergy, agency and hubris (Berkovitch & Narayanan, 1993). Arguments based on synergy posit that M&As are value maximizing transactions for acquirers. Studies that support this hypothesis are Maquieira et al. (1998) and Andrade et al. (2001), among others. They conclude that M&As create value on behalf of the shareholders of the combined firms. On the other hand, M&As driven by the agency motive increase the self-interest of the management in the acquiring firms at the cost of shareholders of acquirers. At the same time, the hubris hypothesis suggests that M&As are value decreasing transactions due to the overestimation of target firms' value by the acquirer.

Based on the prevalent theories regarding M&A motives, our first hypothesis tests these competing arguments of M&As. If mergers and acquisitions announced by Chinese acquirers are driven by the synergy motive, the stock price and financial performance of acquiring firms will increase significantly after the deal. On the other hand, if acquisitions by Chinese acquirers are driven by the agency motive, managers may be motivated to engage in these transactions to maximize firm size. Under this motive, the performance of the acquiring firm will not improve after the M&A transaction even though the size of the acquiring firm will increase. Finally, if M&As are motivated by managerial hubris, management's overestimation of the target's value will lead to a loss

in value for the acquiring firms and their stock price and financial performance will decrease after the deal.

3.1. Means of Payment

The means used to pay for an acquisition is often used as an indicator of the acquirer's confidence in the value of the deal. Acquirers are more likely to value the deal fairly and are less likely to overpay for the target when paying by cash rather than stock. Travlos (1987) examines the abnormal returns of acquiring firms in mergers and tender offers associated with different methods of payments. His findings suggest that the method of payment could signal important information to the market about the existence of information asymmetries. In particular, acquiring firms in cash offers realize positive returns or at least normal returns around the announcement period, while acquiring firms in stock offers suffer negative returns. Furthermore, according to the signaling hypothesis (Myers & Majluf, 1984), the choice of cash payment by bidder management reveals that they believe their firm is undervalued, while the choice of stock exchange conveys the negative information that the stock price of the bidding firm is overvalued.

Therefore, we expect that for Chinese listed acquirers, cash payment has a positive impact on their cumulative abnormal returns surrounding the announcement period and the positive effect is stronger than other means of payment such as stock offers or mixed offers (cash and stock).

3.2. Ownership Structure

The Chinese economy has undergone a significant transformation since 1978. Before the reforms were put in place, all companies belonged to the government, so

called purely state-owned enterprises (SOEs). Then, in the course of economic reform, the ownership structure of Chinese firms started to change with the result that today we have state-owned, collective-owned, privately-owned, individually-owned, cooperative or joint-ventured, and foreign-owned firms. Although, there are various types of ownership today, SOEs remain the core sector of the Chinese economy and play a dominant role in China's rapid development. In addition, compared to their counterparts in Western countries, most listed firms in China have a single dominant shareholder whose ownership far exceeds that of the second largest shareholder. This, no doubt, exerts a significant influence on long-term strategic investment decisions such as acquisitions.

Existing evidence suggests that the ownership structure of Chinese firms affects firm performance. By conducting an in-depth examination of the relation between the ownership structures and firm's performance in China, Chen et al. (2009) conclude that the operating efficiency of Chinese listed companies varies across the type of controlling shareholder. Central government controlled firms perform the best, while privately controlled firms perform worst. In addition, Chi et al. (2009) examine the ownership hypothesis on Chinese listed acquiring firms and find that the higher state ownership and stronger government connections of acquiring firms have a significant positive impact on market performance.

Therefore, based on the special impact state-owned firms may have on M&As, we predict that the share price and market performance of state-owned acquirers will outperform that of corporate non-state acquirers.

3.3. Industry Effects

A horizontal transaction between the acquirer and the target is assumed to increase the average shareholder wealth for acquiring firms (Eckbo & Thorburn, 2009; Travlos, 1987). Besides, Jensen (1988, 1994) proposes that corporate takeover is an efficient approach for industry structure to respond to the economic changes. Thus we predict that if the acquiring and target firms belong to the same industry before the M&A transaction, it will result in a higher positive price reaction upon and after the M&A announcement.

3.4. Cross-Border Acquisitions

In general, prior literature documents that a cross-border M&A transaction helps acquiring firms exploit specific resources in the outward market and acquiring firms benefit from the integration of diversification and organizational capacity (Morck & Yeung, 1992; Kang, 1993). In other words, cross-border acquisitions create value for acquiring firms' shareholders. On the other hand, there is evidence that shows a negative performance for acquiring firms involved in cross-border M&As around the announcement period (Mathur et al., 1994).

As the first cross-border study for Chinese acquiring firms, Boateng et al. (2008) report significant positive abnormal returns for Chinese bidders and conclude that cross-border M&As create value for Chinese acquiring firms. With regard to the Chinese economic reform policies, Chinese firms are encouraged to seek outward investment opportunities and the government provides those acquiring firms involved in cross-border M&As with prominent capital support and resources.

Since the majority of listed firm are state-owned and these firms are far more likely to be encouraged by the government to seek investment opportunities abroad, we hypothesize that cross-border M&As create value for shareholders of acquiring firms both in the short-term and in the long term.

4. Data and Methodology

4.1. Data Description

4.1.1 Data Collection

First, our initial M&A sample data is drawn from the Thomson Financial SDC Platinum Merger and Acquisition Database using the following criteria:

1. The acquirers are publicly listed firms located in mainland China only;
2. The announcement date of the acquisition lies between Jan. 1, 1997 and Dec. 31, 2007;
and
3. The M&A deals are listed as completed transactions.

Following the criteria above, the initial sample data of overall M&A transactions announced by Chinese listed acquiring firms consists of 818 completed deals. At the same time, we collect a number of deal-specific data items from the SDC Mergers and Acquisitions Database, including the announcement date, the effective date, the target's name, its status (subsidiary, joint venture partner, private, government-owned or public firms), its industrial classification described by 4-digit SIC code and its nation, the acquirer's name, its stock ticker and its 4-digit SIC code. We also collect data such as the percentage of shares acquired, the percentage of shares owned after the acquisition, the means of payment offered (cash only, stock only, cash and stock or asset, etc.), the form of acquisition (merger, acquisition of major interest or acquisition of assets), the bidder's attitude (friendly or neutral) and the value of the transaction, if disclosed.

Next, since we are only interested in the impact of M&A announcements where the acquiring firm obtains controlling rights after the acquisition, we exclude firms

involved in less than 50% stake in a target firm in the initial sample. Our sample size drops to 497 after this screening process. Furthermore, we only consider acquiring firms which make an acquisition announcement for a single target on the same date during our studied period. For acquiring firms that initiate multiple acquisition on the same date, we keep only one M&A announcement in our sample. Following this selection, 60 deals are excluded from our sample. We are left with a sample of 437 completed domestic and cross-border deals initiated by Chinese listed firms.

Second, in order to conduct an event study, we information on the dividend-adjusted daily stock price for all firms listed on the Shanghai and Shenzhen Stock Exchanges and daily price data of the Shanghai SE Composite index and Shenzhen SE Composite index, both of which are value-weighted indexes from the Bloomberg Database. The daily stock returns and daily market returns are calculated as follows:

$$R_{it} = \frac{P_{it} - P_{i(t-1)}}{P_{i(t-1)}} \quad (1)$$

$$R_{mt} = \frac{P_{mt} - P_{m(t-1)}}{P_{m(t-1)}} \quad (2)$$

Where R_t is the stock return for stock i on day t , R_{mt} is the return of the market on day t , P_t is the daily stock price of stock i on day t , P_{mt} is the daily price of the market on day t , P_{t-1} is the daily stock price of stock i on day $t-1$, and $P_{m(t-1)}$ is the daily price of the market on day $t-1$.

Third, we obtain the firms' annual financial data mainly from *Annual Reports of Listed Companies in China* and the *Statistics Year Book* issued by the Shanghai and Shenzhen Stock Exchanges, and *China Listed Companies Reports* issued by China Cheng

Xin Securities Rating Company Ltd. Also, we obtain data from two stock exchanges' websites, and China's Security Regulatory Community (CSRC) website.¹

4.1.2 Summary statistics of Chinese M&A characteristics

Table 1 provides a yearly distribution of our sample of 437 M&A deals initiated by Chinese listed firms between 1997 to 2007, partitioned into seven categories. In general, the total number of M&A transactions each year increased from 1997 to 2007 and peaked in 2007. From Table 1 we notice that, before 2000, there were few acquisitions by Chinese listed firms. Subsequently, the Chinese M&A market started to grow fairly rapidly. For example, the number of M&A deals in 2003 exceeded the total number of deals between 1997 and 2001. Although the number of transactions decreased sharply in 2005 when the Chinese capital market experienced a significant downturn, it recovered back in 2007 with nearly one fourth of our total sample size. As Panel A in Table 1 shows, two-thirds of M&A deals involved cash payment. Very few transactions were paid by stock. Although there are many deals for which specific means of payment could not be identified, evidence from the available data allows us to conclude that cash is a dominant method of payment employed by Chinese acquiring firms.

Panel B in Table 1 shows that state-owned firms take part in M&A activities twice as often as non state-owned firms do. We also note that none of our sample firms has a hostile takeover. Panel C shows that the vast majority are friendly acquisitions and neutral acquisitions. This is related to China's M&A characteristic that Chinese listed firms tend to acquire targets which are subsidiaries or privately owned firms (see Panel G

¹ Shanghai Stock Exchange website: www.sse.com.cn;
Shenzhen Stock Exchange website: www.szse.cn;
CSRC website: www.csrc.gov.cn

in Table 1). In our sample, targets as subsidiaries of another company are the most common participant in M&As and private targets is second most common. As we know, if a target is privately held, an acquirer often deals with its private owner directly. If a target is a wholly owned subsidiary of another firm, the acquisition negotiation is often between the acquirer and the target's parent. This perhaps explains the lack of hostile tender offers in the Chinese M&A market.

Panel F in Table 1 presents information on the industry relatedness which is identified by the 2-digit Standard Industrial Classification (SIC) between the acquirer and target. Chinese firms appear to acquire targets in the same industry. This evidence indicates that most Chinese firms attempt to gain economies of scale and expand their market share by corporate control in the same industry. In addition, acquisitions of major interests (301) are the dominant form of acquisition in our sample. Because the acquisition of major interests is less complicated than mergers and assets acquisition, the relatively small number of mergers (74) and assets acquisitions (57) shown in Panel E of Table 1 could be because they are not simple to execute.

From Panel A of Table 2, we find that between January 1997 and December 2007, 333 M&A transactions with a total value of RMB 13,477.78 mil (USD 1,845.11 million) were initiated by Chinese acquiring firms. As shown in Panel B, state-owned acquiring firms were responsible for about 75% of the entire transaction value. As for non-SOE firms, they appear to be relatively small firms with low profitability but with a high growth rate engaged in smaller deals. In addition, compared with other groups, non-SOE acquiring firms have a high debt capacity. Panel C shows that although the transaction value of cross-border M&As only accounted for about 18.5% of total transaction value in

our study period, it has the largest average transaction value for each deal, RMB 226.74 million (USD 31.04 million). Firms which engage in cross-border M&As are relatively large size firms with high profitability but low growth rates.

4.2. Methodology

4.2.1 Measurement of Market Performance of Acquiring Firms

In this study, to measure market performance, we employ Cumulative Abnormal Returns (CARs) to measure short-term stock performance and Buy-and-Hold Abnormal Returns (BHARs) to measure long-term stock performance. Following the estimation period and event windows employed by Schwert (1996), CARs of acquiring firms are calculated over the event window from 42 days prior to the announcement date to 126 days after. We further break down the long event window into 12 windows including (-5,-2), (-2,0), (-1,0), (0,0), (0,+1), (-1,+1), (-2,+2), (+2,+5), (-5,+5), (-10, 10), (-42,-1), (0,+126), where day 0 is the announcement day.

The long-term abnormal returns indicated by the BHARs are computed over the event window from the 12 months before the acquisition to 36 months after. We also design 4 event windows out of entire 48 month study period, including (-12,0), (0,12), (0,24), and (0,36) for our long-term study.

4.2.2 Measurement of Short-term Abnormal Stock Returns

CARs are calculated for each acquiring firm based on daily abnormal returns in accordance with a standard event study methodology (Brown & Warner, 1980). To analyze abnormal stock returns we employ the market model as the benchmark model given by:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it} \quad (3)$$

Where R_{it} is the daily return for stock i on day t , R_{mt} is the daily value-weighted market return on day t , α_i and β_i are parameters, and ϵ_{it} is the error term. The parameters are obtained based on the return data during the 253 days period which begins 380 days and ends 127 days prior to the announcement date. Thus, the abnormal return for stock i on day t is calculated as:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}) \quad (4)$$

Where $(\alpha_i + \beta_i R_{mt})$ stands for the expected normal return on stock i on day t , denoted as $E(R_{it})$. Accordingly, the abnormal return for stock i on day t can be rewritten as:

$$AR_{it} = R_{it} - E(R_{it}) \quad (5)$$

The CAR for each firm is the sum of the daily abnormal returns across τ days during the entire event period from day -42 to day +126, denoted as:

$$CAR_{i\tau} = \sum_{t=1}^{\tau} AR_{it} \quad (6)$$

4.2.3 Measurement of Long-term Abnormal Stock Returns

BHAR is used to measure the abnormal stock returns of acquiring firms (Barber & Lyon, 1997) in the long-term market performance study. For the sample firms, the abnormal return is calculated as:

$$AR_{it} = R_{it} - E(R_{it}) \quad (7)$$

Where R_{it} is the monthly return for stock i in month t , $E(R_{it})$ is the expected return in month t . For our study of long-term abnormal performance, we consider the market index, R_{mt} , as the expected return for each sample firm.

Different from the calculation of CARs, BHAR for each firm is measured as the difference between the return on a buy-and-hold investment in the sample stock and the return on a buy-and-hold investment in a benchmark portfolio, the market index, across τ months.

$$BHAR_{it} = \prod_{t=1}^{\tau} [1 + R_{it}] - \prod_{t=1}^{\tau} [1 + E(R_{mt})] \quad (8)$$

4.2.4 Measurement of Operating Performance

In this study, operating performance is measured by profitability and sales growth. Healy et al. (1992) and Ghosh (2001) apply indicators such as return on asset (ROA), return on equity (ROE) and profit margin to define profitability. In this study, we measure acquiring firm's profitability using these measures which are defined as follow.

ROA is computed as:

$$ROA = \frac{\text{Earnings Before Interest and Taxes}}{\text{Total Value of Assets}} \quad (9)$$

ROE is calculated as:

$$ROE = \frac{\text{Net Income}}{\text{Shareholders' Equity}} \quad (10)$$

Profit Margin is defined as:

$$\text{Profit Margin} = \frac{\text{Net Income}}{\text{Revenue}} \quad (11)$$

In addition, since firm growth can reflect a firm's long-term cash flow generation ability and is positively related to firm performance, we include firms' sales growth as an indicator of firm performance, which is defined as the annual sales growth rate:

$$\text{Sales Growth} = \frac{(\text{Current Year's Sales} - \text{Last Year's Sales})}{\text{Last Year's Sales}} * 100\% \quad (12)$$

Lins (2003) finds that capital structure has a significant impact on firm performance in emerging markets. Thus, we employ the leverage ratio which reflects a firm's debt capacity, as an indirect indicator of firm performance and measure it as:

$$\text{Leverage} = \frac{\text{Long Term Debt} + \text{Current Liabilities}}{\text{Total Assets}} \quad (13)$$

4.2.5 Cross-sectional Analysis of Market Performance

We use an Ordinary Least Square (OLS) regression model to analyze the relation between the CARs and a firm's pre-acquisition performance, changes in leverage and deal characteristics. The regressions are conducted on the three days CAR (-1,+1) and the five day CAR (-2,+2) as a dependent variable in model 1 and model 2, respectively.

As discussed above, variables which indicate a firm's performance and debt capacity are denoted as *ROA*, *ROE*, *Profit Margin*, *Sales Growth* and *Leverage*. The acquiring firm's performance before the acquisition is denoted by variables such as *Pre-ROA*, *Pre-ROE*, *Pre-Profit Margin*, and *Pre-Sales Growth* in the OLS regression model. Besides, we denote changes in leverage as *Dif_leverage*. We also test the effects of *ROA*, *ROE* and *Profit Margin* on the abnormal returns separately.

To analyze the effect of M&A characteristics on the market performance of acquiring firms, we include deal-related control variables as dummy variables in the

analysis. First, if both the acquiring firm and the target firm are in the same industry, the same industry dummy variable denoted as *Same-Industry* equals 1, otherwise it is 0. Second, if the acquiring firm is a state-owned firm, the SOEs dummy variable denoted as *SOE* is 1, otherwise it is 0. Third, if the form of payment in the M&A transaction is cash, then the cash dummy variable denoted as *Cash* equals 1, while 0 represents other forms of payment. Fourth, the cross-border dummy is 1 if it is a cross-border deal, otherwise it is 0. Fifth, we denote *Friendly* as a dummy variable in the analysis which equals 1 if the bidder's attitude to the deal is friendly, otherwise it equals 0. Sixth, the *Private (target)* dummy is 1 if the target is a privately owned firm. Seventh, the *JV (target)* dummy is 1 if the target is a Joint-Venture, otherwise it is 0.

Finally, we measure the firm value of acquiring firms as the logarithm of the firms' market value from the announcement year denoted as *Firm Value* in the regression model.

Thus, the multivariate regression models with CAR (-2,+2) as a dependent variable are:

Model 1.1

$$\begin{aligned} \text{CAR}(-2, +2)_i = & \alpha_i + \beta_1 \text{Pre_ROA}_i + \beta_2 \text{Pre_Sales Growth}_i + \beta_3 \text{Dif_Leverage}_i + \\ & \beta_4 \text{Firm_Value}_i + \beta_5 \text{BHAR}(-12,0)_i + \beta_6 \text{Same_Industry}_i + \beta_7 \text{SOE}_i + \beta_8 \text{Cash}_i + \\ & \beta_9 \text{Cross_Border}_i + \beta_{10} \text{Friendly}_i + \beta_{11} \text{Private(target)}_i + \beta_{12} \text{JV(target)}_i + \varepsilon_i \end{aligned}$$

(14)

Model 1.2

$$\begin{aligned} \text{CAR}(-2, +2)_i = & \alpha_i + \beta_1 \text{Pre_ROE}_i + \beta_2 \text{Pre_Sales Growth}_i + \beta_3 \text{Dif_Leverage}_i + \\ & \beta_4 \text{Firm_Value}_i + \beta_5 \text{BHAR}(-12,0)_i + \beta_6 \text{Same_Industry}_i + \beta_7 \text{SOE}_i + \beta_8 \text{Cash}_i + \\ & \beta_9 \text{Cross_Border}_i + \beta_{10} \text{Friendly}_i + \beta_{11} \text{Private(target)}_i + \beta_{12} \text{JV(target)}_i + \varepsilon_i \end{aligned} \quad (15)$$

Model 1.3

$$\begin{aligned} \text{CAR}(-2, +2)_i = & \\ & \alpha_i + \beta_1 \text{Pre_Margin Profit}_i + \beta_2 \text{Pre_Sales Growth}_i + \beta_3 \text{Dif_Leverage}_i + \\ & \beta_4 \text{Firm_Value}_i + \beta_5 \text{BHAR}(-12,0)_i + \beta_6 \text{Same_Industry}_i + \beta_7 \text{SOE}_i + \beta_8 \text{Cash}_i + \\ & \beta_9 \text{Cross_Border}_i + \beta_{10} \text{Friendly}_i + \beta_{11} \text{Private(target)}_i + \beta_{12} \text{JV(target)}_i + \varepsilon_i \end{aligned} \quad (16)$$

The Regression models for CAR (-1,+1) are:

Model 2.1

$$\begin{aligned} \text{CAR}(-1, +1)_i = & \alpha_i + \beta_1 \text{Pre_ROA}_i + \beta_2 \text{Pre_Sales Growth}_i + \beta_3 \text{Dif_Leverage}_i + \\ & \beta_4 \text{Firm_Value}_i + \beta_5 \text{BHAR}(-12,0)_i + \beta_6 \text{Same_Industry}_i + \beta_7 \text{SOE}_i + \beta_8 \text{Cash}_i + \\ & \beta_9 \text{Cross_Border}_i + \beta_{10} \text{Friendly}_i + \beta_{11} \text{Private(target)}_i + \beta_{12} \text{JV(target)}_i + \varepsilon_i \end{aligned} \quad (17)$$

Model 2.2

$$\begin{aligned} \text{CAR}(-1, +1)_i = & \alpha_i + \beta_1 \text{Pre_ROE}_i + \beta_2 \text{Pre_Sales Growth}_i + \beta_3 \text{Dif_Leverage}_i + \\ & \beta_4 \text{Firm_Value}_i + \beta_5 \text{BHAR}(-12,0)_i + \beta_6 \text{Same_Industry}_i + \beta_7 \text{SOE}_i + \beta_8 \text{Cash}_i + \\ & \beta_9 \text{Cross_Border}_i + \beta_{10} \text{Friendly}_i + \beta_{11} \text{Private(target)}_i + \beta_{12} \text{JV(target)}_i + \varepsilon_i \end{aligned}$$

(18)

Model 2.3

$$\begin{aligned} \text{CAR}(-1, +1)_i = & \alpha_i + \beta_1 \text{Pre_Margin Profit}_i + \beta_2 \text{Pre_Sales Growth}_i + \\ & \beta_3 \text{Dif_Leverage}_i + \beta_4 \text{Firm_Value}_i + \beta_5 \text{BHAR}(-12,0)_i + \beta_6 \text{Same_Industry}_i + \\ & \beta_7 \text{SOE}_i + \beta_8 \text{Cash}_i + \beta_9 \text{Cross_Border}_i + \beta_{10} \text{Friendly}_i + \beta_{11} \text{Private(target)}_i + \\ & \beta_{12} \text{JV(target)}_i + \varepsilon_i \end{aligned}$$

(19)

5. Empirical Results

5.1. Results of Short-term Shareholder Wealth Effects

In this section, we carry out the empirical analysis of the stock price data using standard event study methodology to assess the impact of M&A announcements on the market value of acquiring firms.

Table 3 presents the results of an analysis of shareholder's wealth effects around the M&A announcement date. CARs of event windows (-5,-2), (-2,0), (-1,0), (0,0), (0,+1), (-1,+1), (-2,+2), (+2,+5), (-5,+5), (-10,+10), (-42,-1), (0,+126), (-42,+126) are reported in the third column in Panel A. The days in the event window refer to trading days relative to the announcement day (day 0). The second column describes the number of observations used in each event windows; the fourth column presents the Patell Z value and the fifth and sixth columns present the number of positive CARs against negative CARs and the sign test value, respectively.

Panel A displays the event study results for the whole sample. The mean CAR after the announcement is -0.69% for a period of two days to five days after the announcement day (+2,+5), and -2.52% for 126 days (6 months) after the announcement, which are not significantly different from zero. By contrast, the CARs during a three-day event window (-1,+1) and a five-day event window (-2,+2) are 0.67% and 0.74% and are statistically significant. Similarly, CARs are significantly positive over the event windows (-5,+5), (-10,+10) with 0.19% and 0.79%, respectively.

On the other hand, CARs during periods prior to the announcement are 0.24% for the event window (-5,-2), 0.58% for the event window (-2,0) and 0.37% for the two-day

window (-1,0), which are significantly positive. Similar results are reported over the event window (-42,-1). Since the magnitude of the gains is quite small over the (-42,-1) window, evidence suggests that acquiring firms experience a large portion of run-up occurred from two days to one day prior to the announcement date.

Overall, the empirical evidence from the full sample suggests that shareholders of Chinese acquiring firms realize significant positive CARs surrounding the announcement date and do not lose wealth within 6 months after the M&A announcement. That is to say, shareholders of acquiring firms benefit from their firms' M&A announcement in the short term. The generalized sign test further reinforces our results for all event periods. Our finding is consistent with the M&A studies on Chinese acquiring firms (Chi et al., 2009) and Japanese evidence (e.g. Kang et al., 2000; Van Schaik et al., 2004). However, our finding is contrary to most Western evidence on the wealth effects of M&As which document that acquiring firms do not realize a positive abnormal return during the event period (e.g. Dodd, 1980; Jensen and Ruback, 1983).

Next, we examine whether our results stay robust with respect to the different deal-specific characteristics as well as firm-specific features which are conveyed along with the announcements. To test the impact for different groups, we conduct the same kind of assessment for market reaction by event studies on the acquiring firms partitioned into groups by form of payment, using cash only or stock only, bidder's attitude, friendly or neutral, and type of deals, domestic or cross-border, acquiring firm's ownership status, SOE or non-SOE, target's status, private, joint-venture partner or subsidiaries, and form of acquisition, acquisition of major interest, merger or acquisition of assets. Thus, the full sample is categorized into 14 groups for our sub-group event study analysis. The

empirical results for stock price effect of acquiring firms falling into those groups are presented in Panel B to Panel G in Table 3. We further perform a test on the mean and median differences across the groups discussed above. We report the p-values associated with paired two-tailed t-statistics for mean differences and for Wilcoxon rank-sum z-statistics for median differences in Table 4.

Our sub-group analysis suggests that the abnormal return effect of Chinese listed firms comes mainly from the firms acquiring targets as joint-venture partners. High and significantly positive CARs are observed in Panel F of Table 3, and are of 4.81%, 2.01% and 1.71% over 42 days, 2 days and 1 day prior to the announcement, respectively. Consistently, over the three-day period (-1,+1), five-day period (-2,+2) as well as an 11-day and 21-day period, firms acquiring joint-venture targets report CARs of 1.98%, 2.21%, 1.72% and 3.61%, respectively, and they are statistically significant. This finding indicates that the acquisition of a joint-venture target involves a positive market reaction.

Panel B in Table 3 shows that acquiring firms using cash offers have a significantly positive wealth effect around M&A announcement which is consistent with the evidence we discuss for the whole sample. The evidence for cash offers indicates that, on average, shareholders of acquiring firms realize positive returns before the announcement date and within two days after the announcement date. On the other hand, acquiring firms using stock exchange offers experience a negative mean abnormal return on the announcement day (day 0), which is -0.45% and statistically significant. Similarly, significant negative CARs are observed over the event periods (+2,+5), (-5,+5) and (-10,+10) and insignificant CARs of -3.44% over the event window (-42,-1) and -3.22%

over the window (-5,-2). Other than that, the CARs for stock group are significantly positive over the windows (-2,0), (-1,0), (0,1), (-1,+1), (-2,+2), (0,126), and (-42,126).

With respect to what impact the bidder's attitude has on shareholders' wealth, the results presented in Panel C of Table 3 suggest that shareholders of firms which initiate friendly M&A offers gain positive abnormal returns, while shareholders of firms engaged in neutral M&A offers do not gain as a whole.

Surprisingly, as shown in Panel D (Table 3), for firms engaging in cross-border M&As, none of the CARs over the three-day window (-1,+1), the five-day window (-2,+2) or the 11-day (-5,+5) and 21-day windows (-10,+10), and CARs over the pre-acquisition windows (-5,-2), (-2,0), (-1,0), (-42,-1) show significant abnormal returns. Overall, based on our cross-border M&A sample we conclude that shareholders of acquiring firms initiating cross-border M&As experience a normal rate of return. The indistinguishable market performance of the cross-border group is inconsistent with our expectation that cross-border M&As create value for Chinese acquiring firms (Boateng et al., 2008). One possible explanation for our result may be that cross-border M&As by Chinese firms that mainly take place in recent years may be politically motivated rather than motivated by shareholder wealth maximization. To our knowledge, firms in emerging markets which intend to acquire firms in developed markets tend to suffer a loss in the beginning. Therefore, it is possible that investors do not consider the M&A event as being positively related to the firm's future performance. Again, the sample size of cross-border deals (15) is too small to make any meaningful inferences. On the other hand, the market reacts positively to firms involved in domestic takeovers. As shown in Panel D, CARs are positive across all event windows (-1,+1), (-2,+2), (-5,+5), (-10,+10)

with returns of 0.66%, 0.72%, 0.22%, and 0.9%, respectively, which are all significant at the 0.001 level. Furthermore, the sign test results reinforce this finding. Therefore, we conclude that the results are mostly driven by the domestic sample. The evidence for the domestic group shown in Panel D indicates that investors view M&A activities initiated by acquiring firms with targets located in mainland China favourably. It appears that a great deal of Chinese acquiring firms involved in the acquisition of domestic targets expand their market share and gain greater economies of scale by either successfully turning around bad performing targets or better integrating targets into the operations of merged firms. For example, TCL, China's first television and mobile phone manufacturer, is recognized as a successful firm in domestic M&A, which has made several acquisitions of bad performing television manufacturers but successfully turned them around and integrated them into its operating system. However, when it comes to cross-border M&As, statistics show that the post-acquisition integration practice of most Chinese participants has not turned out as expected. Therefore, cross-border M&As have proven to be more challenging for Chinese acquiring firms. Therefore, our finding, to some extent, represents the common evidence for Chinese M&As development status.

To answer our proposed question whether the market reacts more favorably to acquiring firms which are SOEs than non-SOEs, the short-term analysis is shown in Panel E of Table 3. In general, shareholders of SOEs gain positive stock returns around M&A announcements. In particular, shareholders realize CARs of 0.33% and 0.20% over 2 days (-2,0) and 1 day (-1,0) prior to the announcement, respectively, and of 0.15% over 1 day (0,1) after the announcement, which are highly significant. On the other hand, non-SOEs realize a normal return associated with their M&A announcement on the whole.

The results of an event study on non-SOEs show that (Panel E), Shareholders of non-SOEs only realize a CAR of 1.19% over 2 days prior to the announcement and 2.95% over 10 days prior and 10 days after the announcement, both being statistically significant.

Looking across the subgroup of form of acquisition in Panel G of Table 3, a consistent result is found that acquiring firms realize positive abnormal returns around the announcement day. The event window (-1,+1) shows that firms making acquisition of major interests, merger and making acquisition of assets generate CARs of 0.49%, 0.60% and 1.60%, respectively, which are significant.

To conclude, our analysis of shareholders' short term wealth effects associated with M&A announcements in China suggests that there is a positive announcement effect in terms of abnormal stock returns. In other words, M&A activities increase shareholder value in the short term, particularly before and around the announcement. Mergers and acquisitions are value maximizing investment decisions for acquiring firms and are maximizing shareholder wealth in the short term. Moreover, the difference of wealth impacts of cash or stock payments, and of domestic or cross-border deals is insignificant in Chinese acquisition market. In contrast, we find that the evidence of the wealth effect for bidder's attitude is distinguishable in China. The announcements of friendly takeovers generates higher returns for shareholders of acquirers than neutral takeovers do. Meanwhile, in China, there is little evidence that M&As by SOE acquirers bring about higher and positive returns compared with those by non-SOE acquirers. Furthermore, our findings indicate that acquisitions of joint-venture targets are the most profitable M&As for Chinese acquiring firms. Accordingly, shareholders of firms in acquisitions of joint

venture targets realize the highest gains among others associated with the M&A announcement.

Panel A of Table 4 shows results for a series of mean and median difference tests for CARs between cash offers and stock exchange offers. In general, the market does not react more favorably to acquiring firms using cash offers than those using stock exchange offers. As a whole, the Chinese evidence of market reaction to different methods of payment in M&A deals is inconsistent with the findings of Travlos (1987) which report that shareholders of acquiring firms using stock offers suffer negative abnormal stock returns one day before and upon the announcement date. It is possible that the sample size of stock payment firms is too small to make an explicit conclusion. Results of means and medians difference tests between SOEs and non-SOEs acquirers (Panel B) provide some weak evidence that median CARs of SOE acquirers over a period of 1 day after the announcement is larger than that of non-SOE acquirers. Therefore, we conclude that there is no significant difference in stock abnormal returns between SOE acquirers and non-SOEs acquirers surrounding the M&A announcement. In addition, the result of mean difference tests of CARs between friendly deals and neutral deals shows that mean CARs of friendly deals are significantly higher than those of neutral deals which further confirms our finding that friendly offers are favored by investors and bring about higher stock returns to acquiring firms associated with the announcement.

5.2. Results for the Long-term Performance of Acquiring Firms

In this section, we analyze the long term performance of acquiring firms in the post-acquisition period using both an event study method and accounting method. We report the results of shareholders' wealth effect over 36 months (3 years) following the

announcement month in Table 5. We also report the results for the subsamples based on method of payment, acquirer's status and bidder's attitude in Table 6.

Next, we display a comprehensive analysis of the changes in operating performance of acquiring firms for six years around the M&A announcement year (from 3 years before to 3 years after the announcement year). The results are reported in Table 7, 8 and 9, respectively.

5.2.1 Results of Event Study Analysis

Table 5 presents the BHARs to acquirer shareholders over five holding periods, (-12,0), (0,0), (0,12), (0,24), and (0,36). For example, -12 denotes 12 months prior to the announcement month (month 0), and +12 denotes 12 months after the announcement month. BHAR is computed as the average compounded abnormal return across each event period.

Panel A of Table 5 shows that for the full sample, acquirer shareholders, on average, gain a 16.04% abnormal return during the pre-acquisition period (-12,0) and 18.25%, 37.97%, and 88.21% abnormal returns over the post-acquisition periods (0,+12), (0,+24), and (0,+36), respectively. These compounded abnormal returns during 1 year period, 2-year period and 3-year period are highly significant.

Analysis of sub-groups shows that, cash acquirers outperform stock acquirers over the long term (Panel B) and friendly acquirers realize higher abnormal returns than neutral acquirers (Panel C). The evidence of long term shareholders' gains is contrary to that of shareholders' wealth effects in the short term when we classify the sample by SOE acquirers and non-SOE acquirers. Panel D displays that shareholders of SOE acquirers as

well as non-SOE acquirers earn significant positive gains following the announcement year. Over the 24 month and 36 month post-acquisition periods, we also find that cross-border acquirers realize 239.17% and 232.76% abnormal returns, respectively, that are significant at the 0.1 level and higher. Overall, none of the average BHARs reported in Table 5 are negative in the long term following the M&A announcement.

The results for our mean and median difference tests are shown in Table 6. We find that there is no significant difference in the long term wealth effect between cash and stock payment (Panel A), SOE and non-SOE acquirers (Panel B), and friendly and neutral deals (Panel C). We thus conclude that, although there is no distinguishable difference across various characteristics of deals, Chinese acquiring firms, on average, outperform the stock market and create positive or normal stock returns for shareholders who buy and hold the stock over the three years following the M&A announcement. However, the results for the long-term stock return performance are, in general, contrary to those reported for developed markets.

5.2.2 Results of Post-Acquisition Operating Performance

While a vast majority of studies of long term post-performance focus on the long term stock price effects related to M&As (e.g. Agrawal et al., 1992; Anderson and Mandelker, 1993; Loughran and Vijh, 1997; Bradley and Sundaram, 2004), few studies have examined the changes in operating performance associated with a firm's M&A activities (e.g. Healy et al., 1992; Ghosh, 2001). In this study, to further investigate whether mergers and acquisitions provide benefits to Chinese acquiring firms in the long term, we study the changes in operating performance of acquiring firms before and after acquisitions.

We apply firms' accounting data to analyze whether acquirers show better operating performance following acquisitions in terms of changes in profitability and sales growth. For the analysis of acquiring firm's profitability, we use three different financial ratios, ROA, ROE and Profit Margin. We also measure changes in a firm's leverage (debt to total assets) in order to analyze the changes in the firm's debt capacity.

In Table 7, we provide a statistical summary of the data on profitability and growth for the different indicators (ROA, ROE, Profit Margin and Sales Growth) for a 6-year period. Panel A shows that ROE, Profit Margin and Sales Growth decline from year -3 to year -1 in the pre-acquisition period relative to the announcement year (year 0), and jumps back up in the announcement year. Then, following the acquisition, Profit Margin and Sales Growth show a further decline from year +1 to year +2 in the post-acquisition period. In contrast, the leverage ratio displays a decline in the pre-acquisition period but increases gradually from the announcement year and beyond.

In Table 8, we provide results for a t-test with respect to mean differences and for a z-test with respect to median differences of financial variables (ROA, ROE, Profit Margin, Sales Growth and Leverage) averaged over three years post-acquisition and averaged over three years pre-acquisition for the full sample as well as the sub-samples. The results of overall firm performance in terms of profitability and growth, on average, do not show that Chinese acquiring firms realize an improvement in operating performance after mergers and acquisitions. In particular, profitability decreases following acquisitions. As shown in Panel A, mean ROA in the post-acquisition period (1.58%) is significantly lower compared with that in pre-acquisition period (3.45%). On the other hand, the debt of acquiring firms increases after acquisitions with both the mean

and median difference being significant. In summary, our results on performance and leverage changes over the long term suggest that acquiring firms perform poorly or no better after acquisitions than they do before acquisitions, as shown by decreased profitability, whereas the financial leverage of acquiring firms increases significantly after the acquisition.

A further breakdown across sub-samples displays similar evidence as the full sample. When analyzing SOEs vs. non-SOEs (Panel B), the use of cash payment vs. stock payment (Panel C), and domestic or cross-border acquisitions (Panel D), results are consistent with those for the full sample. Consistently, across various sub-samples, leverage increases following the acquisition.

Overall, our findings on post-acquisition operating performance are consistent with earlier research on the post-acquisition performance in the US that shows that acquirers do not seem to improve their operating performance in the post-acquisition period. For example, in a recent study, Ghosh (2001), reports that firm performance shows no significant improvement after the acquisition when applying industry-adjusted data of three years before and three years after the transaction. Our finding is consistent with studies on operating performance of Chinese acquiring firms that performance improves only in the announcement year and then declines in the following years (Wang, 2007). Chinese acquirers involved in cross-border M&As realize a higher sales growth rate followed by M&As compared with that of domestic acquirers. In some respects, this is consistent with the theory that conglomerate acquisitions are more likely induced by the goal of growth maximization (Halpern, 1983). Our finding that acquisitions lead to financial leverage changes is consistent with the U.S. evidence documented by Ghosh

and Jain (2000). They find that financial leverage increases significantly following mergers.

5.3. Results of Cross-Sectional Analysis

In this section, we examine the effects of Chinese firm-specific factors and deal-specific characteristics on abnormal returns around the announcement date. The results are presented in Table 9.

Model 1.1 through 1.3 (as well as Models 2.1 through 2.3) employ ROA, ROE and Profit Margin, respectively, for the pre-acquisition period. In each model, ROA, ROE and Profit Margin has a negative effect on abnormal returns around the announcement, and is significant at the 10% level. According to the agency theory of Jensen (1986), managers of firms with substantial free cash flow are likely to overinvest in projects which could maximize firm size or growth associated with their compensation at the expense of the firm's shareholders. Our results, therefore, suggest that agency can be a possible motive during Chinese acquisition.

Changes in leverage around acquisition announcements have some effects on abnormal returns as well. As shown in Model 2.1 through 2.3, Dif_Leverage is positively related to abnormal returns associated with M&As announcements, and is significant at the 10% level or better.

As for the same industry effect on abnormal returns, some evidence from Chinese M&As shows that if acquirers and targets belong to the same industry, according to the market power theory by Chatterjee (1986), the synergy effect for the combined firm would increase shareholders' value.

As shown in Table 9, friendly M&As are robust from all regressions. As friendly acquisitions are viewed as positive events due to their low transaction cost, shareholders are likely to benefit from friendly acquisitions.

There is some evidence in Chinese M&As that the acquisition of private targets may result in a value decline for shareholders. However, this finding is inconsistent with that reported by Fuller et al. (2002). They find that firms acquiring private firms realize higher abnormal returns than acquiring public firms associated with M&A announcements. One reason is that since the data accessibility is limited for private firms, investors are concerned that it is challenging for acquirers to make appropriate estimations on the performance of private firms. On the other hand, in our case, acquiring a joint-venture target has a significant positive effect on abnormal returns around the announcement. As a strategic entity, a joint venture has advantages over other business entities in, for example, greater resources in terms of staff and technology and greater business opportunities. Thus, the profit, resources and business opportunities of joint venture targets are likely to be transferred to the combined firm if they are acquired. Accordingly, shareholders of acquiring firms are likely to experience gains as well.

However, the results of Table 9 show that cash payments in M&A activities have no significant effect on abnormal returns which is inconsistent with the Western findings that acquirers offering cash payment experience positive abnormal returns (Travlos, 1987). Interestingly, acquirers with SOEs ownership, and acquirers engaged in cross-border M&As have no effect on abnormal returns which is consistent with our expectations.

6. Conclusion

This paper examines the wealth effects and operating performance of Chinese M&As in an attempt to investigate the underlying motives behind Chinese corporate acquisitions. By studying 437 M&A deals initiated by Chinese listed companies between 1997 and 2007, we find that the acquiring firm shareholders earn positive excess returns around the announcement date but that there is no significant improvement in firm performance after the acquisition.

The main findings from this research are as follows: First, Chinese listed firms often initiate friendly M&A offers and mostly use cash as a means of payment. Most acquisitions are found to be made by SOEs that play a dominant role in China's capital markets. In addition, we find that Chinese acquirers mainly acquire private targets and subsidiaries in related industries.

Second, for the most part, Chinese M&As are viewed by investors as positive signals. We find that acquiring firms experience positive abnormal stock returns around the announcement date, consistent with the synergy motive. Furthermore, there is some evidence that in the long term shareholders who buy and hold the stock of Chinese acquiring firms for three years after acquisition realize moderately positive abnormal returns.

Third, we find no significant improvement in the operating performance of Chinese acquirers. This finding is consistent with US evidence (Ghosh, 2001). Our finding that acquiring firms' operating performance improves only in the announcement year and decreases in the post-acquisition period is consistent with some previous work

on the Chinese acquisition market (e.g. Wang, 2007). The evidence on operating performance is consistent with the agency and hubris hypotheses.

Finally, the cross-sectional analysis reveals that there is no significant difference in the announcement period abnormal returns between state-owned and non state-owned firms. In addition, we find that acquisitions by profitable acquirers and acquisitions involving private targets have a significant negative effect on announcement returns, while acquisitions resulting in a change of firm leverage, horizontal (related) acquisitions, friendly acquisitions, and acquisitions of joint-venture targets have a positive effect on announcement returns.

This study provides some early evidence on the short-term and long-term performance of Chinese acquiring firms. The Chinese corporate control market has grown substantially over the past decade and continues to shape the structure of specific industries and the overall capital market in significant ways. This study has focused only on acquirers that are publicly traded. As the acquisition market matures and data availability improves, it would be useful to build on this research by examining the whole spectrum of acquisition activity in this rapidly transforming market.

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Table 1: Distribution of Acquisitions by Year and by Deal Characteristics, 1997-2007

The sample consists of 437 completed control bids initiated by Chinese listed firms from 1997 through 2007. Acquisition sample is partitioned into the form of payment, bidder's ownership status, bidder's attitude, form of acquisition, whether bidders and targets are in related or nonrelated industries and target's public status and reported by yearly frequencies.

Panel A shows *form of payment* in four categories. Panel B presents *bidder's ownership status* of which State-Owned Enterprise (SOE) is defined as in which the state has control stake, otherwise it is Non State-Owned Enterprise (Non-SOE) firm. Moreover, Panel C describes two kinds of *bidder's attitude* which appear in our sample. Panel D shows the distribution of *Domestic* deals of which both of acquirers and targets locate in mainland China and *Cross-Border* deals of which targets locate in areas or countries outside mainland China. Panel E reports three main *forms of acquisition* (*Merger, Asset Acquisition and Acquisition of Major Interests*). The industrial relatedness between acquirers and targets are shown in panel F, where acquirer and target have the same 2-digit SIC code fall into the group of *related*, otherwise into the group of *unrelated*.

Characteristics of M&A	Year											Total
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Panel A: Form of payment												
Cash Only	7	7	4	12	9	22	51	50	32	35	55	284
Stock Only	0	0	0	0	0	1	1	1	0	4	18	25
Cash & Stock	0	0	0	0	0	0	0	3	0	0	2	5
Other (Assets, Debt, receivables)	0	0	0	0	0	3	9	8	2	5	5	32
Unspecified	1	4	0	4	1	8	11	18	11	14	19	91
Total	8	11	4	16	10	34	72	80	45	58	99	437
Panel B: Bidder's ownership status												
SOE	7	10	3	14	8	23	57	59	30	41	51	303
Non-SOE	1	1	1	2	2	11	15	21	15	17	48	134
Total	8	11	4	16	10	34	72	80	45	58	99	437
Panel C: Bidder's attitude												
Friendly	8	11	4	15	9	32	62	65	37	51	83	377
Neutral	0	0	0	1	1	2	10	14	8	7	16	59
Unspecified	0	0	0	0	0	0	0	1	0	0	0	1
Total	8	11	4	16	10	34	72	80	45	58	99	437
Panel D: Domestic and Cross-Border												
Cross-border	0	0	1	1	0	4	1	6	0	2	4	19
Domestic	8	11	3	15	10	30	71	74	45	56	95	418
Total	8	11	4	16	10	34	72	80	45	58	99	437

Table 1: Distribution of Acquisitions by Year and by Deal Characteristics, 1997-2007 (Continued)

Characteristics of M&A	Year											Total
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
<i>Panel E: Form of Acquisition</i>												
Merger	1	3	1	4	1	4	7	6	4	13	30	74
Asset Acquisition	2	3	1	3	1	9	6	11	3	6	12	57
Acquisition of Majority Interest	5	5	2	9	8	21	56	61	38	39	57	301
Others	0	0	0	0	0	0	3	2	0	0	0	5
Total	8	11	4	16	10	34	72	80	45	58	99	437
<i>Panel F: Bidder's and target's industry relatedness</i>												
Related	7	10	2	13	7	19	46	48	26	28	50	256
Unrelated	1	1	2	3	3	15	26	32	19	30	49	181
Total	8	11	4	16	10	34	72	80	45	58	99	437
<i>Panel G: Target's public status</i>												
State-owned	0	0	0	0	1	0	1	0	0	1	1	4
Public	0	0	0	0	0	1	0	3	0	0	1	5
Private	6	6	0	8	2	13	17	19	14	12	31	128
Joint-Venture	0	1	2	2	1	1	11	9	2	5	2	36
Subsidiary	2	4	2	6	6	19	43	49	29	40	64	264
Total	8	11	4	16	10	34	72	80	45	58	99	437

Table 2: Summary statistics of M&A-specific and firm-specific characteristics

This table provides a summary statistics on transaction value, percentage of shares acquired, and percentage of shares owned after transaction as well as firm-specific characteristics for Chinese M&A sample during 1997 to 2007. We calculate the mean value for firm-specific characteristics. We measure *Firm Size* by total assets in the announcement year, *Profitability* by return on asset (*ROA*), return on equity (*ROE*) and *Profit Margin* (Net Income scaled by Revenue) and *Sales Growth* by sales growth ratio averaged three years before acquisition year. Panel A displays the summary statistics for the total sample. Panel B shows statistics on sample partitioned into *SOE* and *Non-SOE*. Panel C shows statistics on samples classified as *Domestic* deals and *Cross-Border* deals. Given the data availability of Chinese acquiring firms, the statistics are based on the M&A sample with disclosed data. The number of available data appears in parentheses. The conversion of Chinese currency RMB to US dollars is based on the 2007 year end foreign exchange rate that 100 USD is equivalent to 730.46 RMB released on the official website of Chinese State Administration of Foreign Currency (www.safe.gov.cn).

	Firm Size (Mean)		Profitability (Mean %)		Sales Growth (Mean %)	Leverage	Value of Transaction (Total)		Value of Transaction (per deal)		% share acquired (per deal)	% share owned after transaction (per deal)	
	(in mil RMB)	(in mil USD)	ROA	ROE			Profit Margin	(in mil RMB)	(in mil USD)	(in mil RMB)			(in mil USD)
<i>Panel A: Full sample</i>													
	566482.80 (366)	77551.52 (366)	3.45 (383)	3.38 (383)	0.58 (383)	36.41 (383)	0.4900 (383)	13477.78 (333)	1845.11 (333)	40.47 (333)	5.54 (333)	73.17 (436)	78.49 (436)
<i>Panel B: Bidder's status</i>													
SOE	695264.05 (262)	95181.67 (262)	3.64 (262)	4.32 (262)	3.46 (262)	33.00 (262)	0.4720 (262)	10018.68 (227)	1371.56 (227)	44.14 (227)	6.04 (227)	74.18 (302)	78.82 (302)
Non-SOE	242053.12 (104)	33137.08 (104)	3.03 (121)	1.34 (121)	-5.65 (121)	43.78 (121)	0.5291 (121)	3459.11 (106)	473.55 (106)	32.63 (106)	4.47 (106)	70.89 (134)	77.76 (134)
<i>Panel C: Domestic VS Cross-Border</i>													
Domestic	482459.78 (353)	6648.76 (353)	3.42 (370)	3.21 (370)	0.41 (370)	36.84 (370)	0.4891 (370)	10983.65 (322)	1503.66 (322)	34.11 (322)	4.67 (322)	72.48 (417)	78.04 (417)
Cross-Border	2848031.03 (13)	389895.55 (13)	4.37 (13)	8.08 (13)	5.28 (13)	24.14 (13)	0.5164 (13)	2494.13 (11)	341.45 (11)	226.74 (11)	31.04 (11)	88.35 (19)	88.35 (19)

Table 3: Cumulative abnormal returns (CARs) for Chinese acquiring firms

This table reports the CARs for 13 event windows for the full sample (Panel A) and for subgroups classified by the *form of payment* (Panel B), *bidder's attitude* (*Friendly* or *Neutral*) in Panel C, *Domestic* or *Cross-border* in panel D, *bidders' ownership status* (*SOE* or *Non-SOE*) in Panel E, *target's status* (*Private*, *Joint-Venture* or *Subsidiaries*) in Panel F, and *form of acquisitions* (*Acquisition of Major Interest*, *Merger* or *Acquisition of Assets*) in Panel G. CARs are computed from a Market Model estimated from days -379 to -127 relative to the announcement date.

Panel A: Full sample					
window	N	Mean CAR	Patell Z	+/-	Generalized sign Z
(-5,-2)	354	0.24%	2.594**	181\173	2.173*
(-2, 0)	357	0.58%	4.444***	193\164	3.295***
(-1, 0)	351	0.37%	3.984***	185\166	2.757**
(0, 0)	323	0.00%	0.773	144\179	-0.288
(0, +1)	353	0.30%	2.478*	177\176	1.797\$
(-1, +1)	358	0.67%	4.798***	189\169	2.818**
(-2, +2)	366	0.74%	4.446***	188\178	2.300*
(+2,+5)	362	-0.69%	-1.118	166\196	0.182
(-5, +5)	374	0.19%	3.322***	190\184	2.106*
(-10,+10)	380	0.79%	5.104***	192\188	2.015*
(-42,-1)	373	0.04%	2.738**	195\178	2.676**
(0,+126)	384	-2.52%	-0.207	179\205	0.486
(-42,+126)	385	-2.47%	1.221	188\197	1.360

Panel B: Form of payment										
window	N	Mean CAR	Patell Z	<u>Cash</u>	Generalized sign Z	N	Mean CAR	Patell Z	<u>Stock</u>	Generalized sign Z
				+/-					+/-	
(-5,-2)	250	0.36%	1.914\$	129\121	1.946\$	14	-3.22%	0.009	6\08	-0.064
(-2, 0)	250	0.57%	2.700**	130\120	2.073*	17	0.69%	4.231***	10\07	1.257
(-1, 0)	246	0.35%	2.046*	127\119	1.938\$	17	0.66%	5.056***	10\07	1.257
(0, 0)	230	0.25%	0.982	107\123	0.32	15	-0.45%	3.674***	8\07	0.752
(0, +1)	245	0.45%	1.991*	125\120	1.744\$	18	0.56%	4.216***	10\08	1.014
(-1, +1)	249	0.56%	2.724**	123\126	1.244	18	1.56%	5.348***	11\07	1.489
(-2, +2)	253	0.73%	2.959**	122\131	0.878	19	0.27%	3.623***	11\08	1.247
(+2,+5)	246	-0.97%	-2.334*	112\134	0.018	22	-0.64%	2.848**	10\12	0.165
(-5, +5)	254	-0.03%	1.171	125\129	1.197	22	-1.42%	4.617***	10\12	0.165
(-10,+10)	255	0.37%	2.569*	124\131	1.012	26	-0.10%	6.340***	15\11	1.438
(-42,-1)	256	0.47%	3.056**	132\124	1.957\$	18	-3.44%	-1.546	8\10	0.063
(0,+126)	257	-9.08%	-3.126**	107\150	-1.235	26	38.62%	5.407***	15\11	1.438
(-42,+126)	257	-8.61%	-1.106	113\144	-0.484	26	36.24%	4.229***	17\9	2.229*

\$, *, **, ***, denote statistical significance at 0.1, 0.05, 0.01, 0.001 levels, respectively.

Table 3: Cumulative abnormal returns (CARs) for Chinese acquiring firms (Continued)

<i>Panel C: Bidder's attitude</i>										
window	N	Mean CAR	<i>Friendly</i>			N	Mean CAR	<i>Neutral</i>		
			Patell Z	+/-	Generalized sign Z			Patell Z	+/-	Generalized sign Z
(-5,-2)	302	0.25%	2.136*	152\150	1.717\$	51	0.12%	1.46	28\23	1.402
(-2, 0)	306	0.79%	5.089***	171\135	3.679***	50	-0.74%	-0.81	21\29	-0.445
(-1, 0)	300	0.55%	4.615***	161\139	2.872**	50	-0.75%	-0.867	23\27	0.123
(0, 0)	278	0.03%	0.998	124\154	-0.27	44	-0.19%	-0.359	20\24	0.043
(0, +1)	303	0.43%	2.998**	156\147	2.124*	49	-0.47%	-0.85	20\29	-0.607
(-1, +1)	307	0.94%	5.603***	168\139	3.277**	50	-1.04%	-1.188	20\30	-0.73
(-2, +2)	314	1.16%	5.720***	170\144	3.107**	51	-1.93%	-2.384*	17\34	-1.694\$
(+2,+5)	312	-0.63%	-1.105	141\171	-0.078	49	-1.14%	-0.364	24\25	0.541
(-5, +5)	322	0.52%	3.449***	165\157	2.102*	51	-1.99%	0.115	24\27	0.276
(-10,+10)	327	1.34%	5.408***	168\159	2.166*	52	-2.88%	0.037	23\29	-0.131
(-42,-1)	320	0.50%	2.229*	164\156	2.098*	52	-2.80%	1.770\$	30\22	1.820\$
(0,+126)	330	0.30%	1.616	156\174	0.679	53	-20.32%	-4.827***	22\31	-0.53
(-42,+126)	331	0.78%	2.525*	163\168	1.401	53	-23.07%	-3.155**	24\29	0.022

<i>Panel D: Domestic vs Cross-Border</i>										
window	N	Mean CAR	<i>Domestic</i>			N	Mean CAR	<i>Cross Border</i>		
			Patell Z	+/-	Generalized sign Z			Patell Z	+/-	Generalized sign Z
(-5,-2)	340	0.18%	2.308*	171\169	1.810\$	15	1.55%	1.616	11\4	2.199*
(-2, 0)	343	0.53%	4.261***	184\159	3.065**	15	1.68%	1.327	10\5	1.680\$
(-1, 0)	339	0.36%	3.897***	179\160	2.735**	13	0.56%	0.924	7\6	0.635
(0, 0)	311	-0.01%	0.714	137\174	-0.48	13	0.19%	0.628	8\5	1.193
(0, +1)	341	0.30%	2.340*	171\170	1.758\$	13	0.44%	0.838	6\7	0.078
(-1, +1)	346	0.66%	4.647***	183\163	2.796**	13	0.82%	1.075	6\7	0.078
(-2, +2)	352	0.72%	4.434***	181\171	2.267*	15	0.92%	0.347	7\8	0.124
(+2,+5)	348	-0.61%	-0.624	163\185	0.537	15	-2.48%	-2.148*	4\11	-1.433
(-5, +5)	360	0.22%	3.375***	183\177	2.068*	15	-0.22%	0.228	8\7	0.642
(-10,+10)	366	0.90%	5.284***	188\178	2.290*	15	-1.82%	-0.165	5\10	-0.914
(-42,-1)	359	0.09%	2.698**	186\173	2.437*	15	-0.98%	0.524	10\5	1.680\$
(0,+126)	370	-2.34%	0.009	175\195	0.731	15	-5.80%	-0.784	5\10	-0.914
(-42,+126)	371	-2.24%	1.384	182\189	1.412	15	-6.79%	-0.381	7\8	0.124

<i>Panel E: Bidder's ownership status</i>										
window	N	Mean CAR	<i>SOE</i>			N	Mean CAR	<i>Non-SOE</i>		
			Patell Z	+/-	Generalized sign Z			Patell Z	+/-	Generalized sign Z
(-5,-2)	251	0.20%	2.054*	124\127	1.293	103	0.33%	1.606	57\46	2.011*
(-2, 0)	252	0.33%	3.481***	138\114	3.005**	105	1.19%	2.828**	55\50	1.422
(-1, 0)	249	0.20%	3.769***	137\112	3.069**	102	0.80%	1.434	48\54	0.322
(0, 0)	232	-0.14%	1.708\$	111\121	0.767	91	0.35%	-1.364	33\58	-1.764\$
(0, +1)	247	0.15%	2.910**	133\114	2.686**	106	0.67%	-0.011	44\62	-0.819
(-1, +1)	250	0.47%	4.458***	135\115	2.751**	108	1.12%	1.884\$	54\54	0.945
(-2, +2)	255	0.28%	3.118**	124\131	1.055	111	1.77%	3.419***	64\47	2.578**
(+2,+5)	255	-0.84%	-1.102	117\138	0.174	107	-0.35%	-0.347	49\58	0.067
(-5, +5)	261	-0.18%	2.853**	131\130	1.575	113	1.04%	1.699\$	59\54	1.439
(-10,+10)	263	-0.17%	3.019**	132\131	1.58	117	2.95%	4.769***	60\57	1.262
(-42,-1)	263	0.77%	3.069**	141\122	2.695**	110	-1.72%	0.259	54\56	0.762
(0,+126)	267	-1.40%	-0.762	124\143	0.362	117	-5.06%	0.831	55\62	0.334
(-42,+126)	268	-0.64%	0.911	128\140	0.797	117	-6.68%	0.846	60\57	1.262

\$, *, **, ***, denote statistical significance at 0.1, 0.05, 0.01, 0.001 levels, respectively.

Table 3: Cumulative abnormal returns (CARs) for Chinese acquiring firms (Continued)

Panel F: Target's public status

window	Private			Joint-Venture			Subsidiary							
	N	Mean CAR	Patell Z	N	Mean CAR	Patell Z	N	Mean CAR	Patell Z	N	Mean CAR	Patell Z	Generalized sign Z	
(-5,-2)	108	0.72%	3.744***	33	0.42%	0.565	17\16	0.569	-0.021	207	-0.13%	-0.021	96\111	0.245
(-2,-0)	109	0.06%	0.353	33	2.01%	4.928***	25\8	3.360***	3.116**	209	0.56%	3.116**	112\97	2.340*
(-1,-0)	107	-0.15%	-0.424	33	1.71%	5.404***	24\9	3.011**	2.902**	205	0.40%	2.902**	108\97	2.057*
(0,0)	98	0.06%	0.029	32	0.54%	3.137**	18\14	1.097	-0.298	188	-0.10%	-0.298	80\108	-0.819
(0,+1)	107	-0.06%	0.113	33	0.79%	3.276**	19\14	1.266	1.661\$	208	0.41%	1.661\$	109\99	1.991*
(-1,+1)	108	-0.26%	-0.265	33	1.98%	5.302***	22\11	2.313*	3.848***	211	0.89%	3.848***	115\96	2.618**
(-2,+2)	110	-0.59%	-1.063	33	2.21%	4.481***	22\11	2.313*	4.362***	217	1.12%	4.362***	118\99	2.618**
(+2,+5)	107	-1.40%	-1.800\$	32	-0.70%	-1.252	16\16	0.388	0.446	218	-0.32%	0.446	101\117	0.238
(-5,+5)	111	-0.90%	1.093	33	1.72%	2.344*	22\11	2.313*	2.186*	224	0.41%	2.186*	110\114	1.076
(-10,+10)	113	-1.19%	1.377	33	3.61%	3.242**	20\13	1.615	4.137***	228	1.35%	4.137***	117\111	1.755\$
(-42,-1)	113	-1.80%	1.879\$	33	4.81%	2.356*	19\14	1.266	0.828	220	-0.07%	0.828	114\106	1.873\$
(0,+126)	115	-9.34%	-3.341***	33	2.33%	0.373	19\14	1.266	2.151*	230	0.88%	2.151*	110\120	0.700
(-42,+126)	115	-11.11%	-1.872\$	33	7.14%	1.541	21\12	1.964*	2.275*	230	0.82%	2.275*	112\118	0.965

Panel G: Form of acquisition

window	Acquisition of Major Interest			Merger			Acquisition of Asset							
	N	Mean CAR	Patell Z	N	Mean CAR	Patell Z	N	Mean CAR	Patell Z	N	Mean CAR	Patell Z	Generalized sign Z	
(-5,-2)	257	0.31%	1.943\$	53	0.06%	1.425	29\24	1.42	0.638	40	-0.14%	0.638	22\18	1.185
(-2,-0)	255	0.59%	3.438***	57	0.29%	1.385	30\27	1.157	2.154*	41	0.77%	2.154*	24\17	1.654\$
(-1,-0)	252	0.27%	2.509*	55	0.36%	2.148*	31\24	1.692\$	2.701**	40	0.93%	2.701**	23\17	1.502
(0,0)	235	0.02%	0.057	50	-0.26%	0.664	24\26	0.425	0.78	34	0.07%	0.78	13\21	-0.87
(0,+1)	251	0.25%	1.749\$	56	0.02%	0.852	31\25	1.556	0.902	42	0.77%	0.902	21\21	0.564
(-1,+1)	255	0.49%	3.427***	57	0.60%	2.046*	33\24	1.955\$	2.412*	42	1.60%	2.412*	28\14	2.732**
(-2,+2)	258	0.68%	3.528***	61	0.26%	1.179	29\32	0.397	2.139*	43	1.54%	2.139*	25\18	1.642
(+2,+5)	253	-0.97%	-2.864**	61	-0.41%	1.543	32\29	1.169	2.062*	45	0.52%	2.062*	19\26	-0.464
(-5,+5)	261	-0.16%	1.234	64	0.18%	2.836**	35\29	1.556	2.879**	45	1.89%	2.879**	22\23	0.434
(-10,+10)	263	0.28%	2.642**	67	2.63%	4.920***	34\33	0.944	2.224*	46	0.62%	2.224*	23\23	0.59
(-42,-1)	265	-0.02%	2.809**	61	2.58%	1.714\$	32\29	1.169	-0.977	43	-3.18%	-0.977	20\23	0.111
(0,+126)	267	-5.89%	-1.169	67	7.13%	-0.008	26\41	-1.021	1.832\$	46	2.46%	1.832\$	24\22	0.886
(-42,+126)	267	-5.90%	0.465	68	9.34%	0.837	28\40	-0.635	1.159	46	-0.51%	1.159	23\23	0.59

\$, *, **, ***, denote statistical significance at 0.1, 0.05, 0.01, 0.001 levels, respectively

Table 4: Means and Medians differences in CARs between M&A subgroups

This table reports mean and median difference between M&A subgroups: Cash vs Stock (Panel A), *SOE* vs *Non-SOE* (Panel B), and *Friendly* offers vs *Neutral* offers (Panel C). The fourth and fifth columns and the eighth and ninth columns report the t-test value for the mean difference and Wilcoxon Z value for the difference of median, respectively.

<i>Panel A: Cash vs Stock</i>								
window	<i>Cash</i>	<i>Stock</i>	t-value	Pr> t	<i>Cash</i>	<i>Stock</i>	z-value	Pr> z
	Mean	Mean			Median	Median		
(-5,-2)	0.36%	-3.22%	2.16	0.032	0.12%	-0.91%	-0.5482	0.5835
(-2, 0)	0.57%	0.69%	-0.07	0.9449	0.34%	2.20%	0.2661	0.7902
(-1, 0)	0.35%	0.66%	-0.19	0.8498	0.15%	3.03%	0.7671	0.4430
(0, 0)	0.25%	-0.45%	0.45	0.654	-0.11%	0.62%	0.2822	0.7778
(0, +1)	0.45%	0.56%	-0.08	0.9399	0.02%	0.69%	0.5042	0.6141
(-1, +1)	0.56%	1.56%	-0.63	0.529	-0.03%	2.90%	0.9909	0.3217
(-2, +2)	0.73%	0.27%	0.26	0.7985	-0.09%	2.57%	0.7123	0.4763
(+2,+5)	-0.97%	-0.64%	-0.24	0.8076	-0.59%	-0.93%	-0.4442	0.6569
(-5, +5)	-0.03%	-1.42%	0.6	0.5481	-0.05%	-0.44%	-0.4437	0.6573
(-10,+10)	0.37%	-0.10%	0.15	0.8823	-0.65%	1.64%	0.8410	0.4003
(-42,-1)	0.47%	-3.44%	0.68	0.4976	0.45%	-4.54%	-0.4868	0.6264
(0,+126)	-9.08%	38.62%	-3.68	0.0003	-4.94%	10.25%	1.2515	0.2108
(-42,+126)	-8.61%	36.24%	-2.98	0.0031	-4.67%	9.35%	1.6624	0.0964

<i>Panel B: SOE vs Non-SOE</i>								
window	<i>SOE</i>	<i>Non-SOE</i>	t-value	Pr> t	<i>SOE</i>	<i>Non-SOE</i>	z-value	Pr> z
	Mean	Mean			Median	Median		
(-5,-2)	0.20%	0.33%	-0.19	0.8467	-0.09%	0.20%	0.8180	0.4134
(-2, 0)	0.33%	1.19%	-1.16	0.2476	0.47%	0.38%	-0.3139	0.7536
(-1, 0)	0.20%	0.80%	-0.87	0.3828	0.34%	-0.14%	-1.1398	0.2544
(0, 0)	-0.14%	0.35%	-0.74	0.4592	-0.09%	-0.59%	-1.8177	0.0691
(0, +1)	0.15%	0.67%	-0.79	0.4303	0.18%	-0.31%	-2.0523	0.0401
(-1, +1)	0.47%	1.12%	-0.9	0.3683	0.27%	0.02%	-0.6899	0.4902
(-2, +2)	0.28%	1.77%	-1.77	0.0769	-0.08%	0.54%	1.2491	0.2116
(+2,+5)	-0.84%	-0.35%	-0.72	0.4738	-0.55%	-0.68%	-0.1150	0.9084
(-5, +5)	-0.18%	1.04%	-1.05	0.2925	0.05%	0.27%	0.5623	0.5739
(-10,+10)	-0.17%	2.95%	-1.82	0.0692	0.08%	0.11%	0.1110	0.9116
(-42,-1)	0.77%	-1.72%	1.02	0.3064	0.97%	-0.37%	-1.1005	0.2711
(0,+126)	-1.40%	-5.06%	0.57	0.5708	-2.22%	-3.66%	-0.1107	0.9118
(-42,+126)	-0.64%	-6.68%	0.81	0.4158	-1.60%	1.24%	0.3656	0.7146

<i>Panel C: Friendly vs Neutral</i>								
window	<i>Friendly</i>	<i>Neutral</i>	t-value	Pr> t	<i>Friendly</i>	<i>Neutral</i>	z-value	Pr> z
	Mean	Mean			Median	Median		
(-5,-2)	0.25%	0.12%	0.14	0.8857	0.10%	0.12%	0.1730	0.8626
(-2, 0)	0.79%	-0.74%	1.56	0.1202	0.56%	-0.42%	-1.5232	0.1277
(-1, 0)	0.55%	-0.75%	1.46	0.1452	0.19%	-0.30%	-0.9152	0.3601
(0, 0)	0.03%	-0.19%	0.26	0.7975	-0.22%	-0.14%	0.0000	1.0000
(0, +1)	0.43%	-0.47%	1.03	0.3038	0.06%	-0.34%	-1.3838	0.1664
(-1, +1)	0.94%	-1.04%	2.10	0.0368	0.37%	-0.88%	-1.8062	0.0709
(-2, +2)	1.16%	-1.93%	2.79	0.0056	0.43%	-1.39%	-2.8435	0.0045
(+2,+5)	-0.63%	-1.14%	0.55	0.5843	-0.66%	-0.22%	0.4812	0.6304
(-5, +5)	0.52%	-1.99%	1.62	0.1061	0.20%	-0.65%	-0.4309	0.6665
(-10,+10)	1.34%	-2.88%	1.83	0.0677	0.38%	-1.96%	-1.1723	0.2411
(-42,-1)	0.50%	-2.80%	1.03	0.3045	0.38%	1.28%	1.1945	0.2323
(0,+126)	0.30%	-20.32%	2.41	0.0163	-1.63%	-6.48%	-1.0141	0.3106
(-42,+126)	0.78%	-23.07%	2.42	0.0158	-0.24%	-5.51%	-0.4433	0.6576

§, *, **, ***, denote statistical significance at 0.1, 0.05, 0.01, 0.001 levels, respectively.

Table 5: Long term buy-and-hold abnormal returns (BHARs) for Chinese acquiring firms

This table reports the BHAR from Market Adjusted Model for acquiring firms (Panel A) and BHAR for acquiring firms classified by the *form of payment* (Panel B), *bidder's attitude* (Panel C), whether bidders are *SOE* or not (Panel D), whether it is *Domestic* or *Cross-Border* M&A (Panel E). BHAR are computed from Market Adjusted Model estimated from month -48 to -13 relative to the announcement month.

<i>Panel A: Full sample</i>											
window	N	BHAR	Patell Z	+/-	Generalized sign Z						
(-12,0)	334	16.04%	3.232**	150\184	-0.514						
(0,0)	334	3.00%	6.213***	181\153	2.888**						
(0,+12)	334	18.25%	5.028***	163\171	0.912						
(0,+24)	334	37.97%	9.289***	168\166	1.461						
(0,+36)	334	88.21%	13.242***	168\166	1.461						
<i>Panel B: Form of payment</i>											
window	N	BHAR	Patell Z	<i>Cash</i>		Generalized sign Z	N	BHAR	Patell Z	<i>Stock</i>	
				+/-	Generalized sign Z					+/-	Generalized sign Z
(-12,0)	226	15.29%	2.000*	98\128	-0.87	11	10.59%	0.659	6\05	0.454	
(0,0)	226	1.62%	2.776**	115\111	1.398	11	5.17%	0.946	6\05	0.454	
(0,+12)	226	13.79%	2.913**	106\120	0.197	11	5.30%	-0.22	4\07	-0.754	
(0,+24)	226	19.74%	6.556***	109\117	0.597	11	13.50%	0.151	5\06	-0.15	
(0,+36)	226	58.83%	9.665***	114\112	1.264	11	28.44%	1.143	6\05	0.454	
<i>Panel C: Bidder's attitude</i>											
window	N	BHAR	Patell Z	<i>Friendly</i>		Generalized sign Z	N	BHAR	Patell Z	<i>Neutral</i>	
				+/-	Generalized sign Z					+/-	Generalized sign Z
(-12,0)	287	16.70%	2.665**	128\159	-0.595	46	12.12%	1.996*	21\25	-0.095	
(0,0)	287	3.23%	6.094***	156\131	2.719**	46	1.18%	1.227	24\22	0.792	
(0,+12)	287	20.54%	5.376***	141\146	0.943	46	3.83%	-0.139	21\25	-0.095	
(0,+24)	287	38.70%	8.527***	142\145	1.062	46	34.19%	3.685***	25\21	1.087	
(0,+36)	287	73.16%	12.029***	144\143	1.299	46	184.08%	5.600***	24\22	0.792	
<i>Panel D: Bidder's ownership status</i>											
window	N	BHAR	Patell Z	<i>SOE</i>		Generalized sign Z	N	BHAR	Patell Z	<i>Non-SOE</i>	
				+/-	Generalized sign Z					+/-	Generalized sign Z
(-12,0)	231	14.64%	2.599**	104\127	-0.439	102	18.79%	1.746\$	45\57	-0.332	
(0,0)	231	2.54%	4.244***	120\111	1.672\$	102	4.02%	4.769***	60\42	2.650**	
(0,+12)	231	15.25%	4.036***	114\117	0.881	102	25.60%	3.193**	49\53	0.463	
(0,+24)	231	43.34%	7.547***	115\116	1.012	102	26.49%	5.530***	53\49	1.258	
(0,+36)	231	99.13%	11.954***	116\115	1.144	102	64.90%	6.101***	52\50	1.06	
<i>Panel E: Domestic vs Cross-Border</i>											
window	N	BHAR	Patell Z	<i>Domestic</i>		Generalized sign Z	N	BHAR	Patell Z	<i>Cross Border</i>	
				+/-	Generalized sign Z					+/-	Generalized sign Z
(-12,0)	320	16.12%	2.837**	139\181	-0.98	14	14.15%	2.208*	11\3	2.167*	
(0,0)	320	2.95%	6.126***	172\148	2.720**	14	4.18%	1.057	9\05	1.098	
(0,+12)	320	15.93%	4.880***	157\163	1.038	14	71.16%	1.235	6\08	-0.505	
(0,+24)	320	29.17%	9.090***	162\158	1.599	14	239.17%	1.907\$	6\08	-0.505	
(0,+36)	320	81.89%	13.029***	161\159	1.487	14	232.76%	2.340*	7\07	0.029	

\$, *, **, ***, denote statistical significance at 0.1, 0.05, 0.01, 0.001 levels, respectively.

Table 6: Means and Medians differences in BHARs between M&A subgroups

This table presents means and medians between subgroups: *Cash vs Stock* (Panel A), *SOE vs Non-SOE* (Panel B), and *Friendly offers vs Neutral offers* (Panel C). The fourth and fifth columns report t-statistics value for the difference of mean. The eighth and ninth columns report the Wilcoxon Z value for the difference of median.

Panel A: Cash vs Stock

window	<u>Cash</u>	<u>Stock</u>	t-value	Pr> t 	<u>Cash</u>	<u>Stock</u>	z-value	Pr> z
	Mean	Mean			Median	Median		
(-12,0)	15.29%	10.59%	0.15	0.8797	-4.19%	1.66%	0.3224	0.7471
(0,0)	1.62%	5.17%	-0.76	0.4463	0.33%	2.42%	0.3224	0.7471
(0,+12)	13.79%	5.30%	0.27	0.7862	-3.74%	-8.52%	-0.2938	0.7689
(0,+24)	19.74%	13.50%	0.16	0.8740	-2.44%	-2.75%	-0.2938	0.7689
(0,+36)	58.83%	28.44%	0.37	0.7103	0.75%	26.24%	0.3224	0.7471

Panel B: SOE vs Non-SOE

window	<u>SOE</u>	<u>NSOE</u>	t-value	Pr> t 	<u>SOE</u>	<u>NSOE</u>	z-value	Pr> z
	Mean	Mean			Median	Median		
(-12,0)	14.64%	18.79%	-0.35	0.7234	-3.46%	-4.26%	0.0364	0.9710
(0,0)	2.54%	4.02%	-0.80	0.4260	0.43%	1.55%	1.2234	0.2212
(0,+12)	15.25%	25.60%	-0.85	0.3956	-0.55%	-4.14%	-0.4385	0.6611
(0,+24)	43.34%	26.49%	0.65	0.5177	-0.03%	6.24%	0.2738	0.7843
(0,+36)	99.13%	64.90%	0.70	0.4869	0.59%	1.76%	0.0364	0.9710

Panel C: Friendly vs Neutral

window	<u>Friendly</u>	<u>Neutral</u>	t-value	Pr> t 	<u>Friendly</u>	<u>Neutral</u>	z-value	Pr> z
	Mean	Mean			Median	Median		
(-12,0)	16.70%	12.12%	0.29	0.7696	-2.89%	-4.70%	-0.6124	0.5403
(0,0)	3.23%	1.18%	0.83	0.4079	0.87%	0.64%	0.0219	0.9825
(0,+12)	20.54%	3.83%	1.03	0.3045	-1.12%	-9.48%	-0.6124	0.5403
(0,+24)	38.70%	34.19%	0.13	0.8968	-0.75%	7.65%	0.6562	0.5117
(0,+36)	73.16%	184.08%	-1.69	0.0911	0.92%	4.33%	0.0219	0.9825

Table 7: Descriptive statistics on the operating performance of acquiring firms

This table reports descriptive statistics for operating performance and capital structure of acquiring firms by the following indicators: ROA, ROE, Profit Margin and Sales Growth and Leverage. ROA is computed as operating profit (EBIT) divided by total assets. ROE is computed as Net Income divided by Shareholder's equity. Profit Margin is defined as Net Income scaled by Revenue. Sales Growth is defined as the yearly sales growth rate of acquiring firms. The accounting data are collected from *Annual Reports of Listed Companies in China* and the *Statistics Year Book* issued by Shenzhen and Shanghai Stock Exchanges.

Panel A of table 7 describes yearly mean and median of operating performance of acquiring firms from three years before the year of acquisition (-3, -2, -1) through three year after year of acquisition (1, 2, 3) and year of acquisition is defined as year 0. Panel B presents univariate tests on the indicators across seven years.

Panel A: yearly mean and median of operating performance for acquiring firms

Indicator	Year													
	-3		-2		-1		0		+1		+2		+3	
	Mean	Median												
ROA	3.66%	4.27%	3.22%	3.80%	3.48%	3.90%	3.36%	3.77%	2.60%	3.51%	1.29%	3.21%	2.09%	3.57%
ROE	5.79%	7.98%	2.70%	7.39%	2.66%	7.14%	7.99%	7.55%	2.27%	6.85%	-1.18%	6.53%	4.46%	6.53%
Profit Margin	-0.48%	7.67%	-1.89%	6.68%	-2.32%	6.16%	1.27%	6.27%	0.19%	5.01%	-3.57%	3.95%	-4.27%	4.84%
Sales Growth	56.16%	19.85%	44.22%	16.24%	36.13%	16.38%	70.34%	25.90%	54.03%	24.26%	40.29%	17.47%	27.21%	13.81%
Leverage	0.4863	0.4996	0.4851	0.4944	0.4837	0.4892	0.5194	0.5234	0.5270	0.5397	0.5487	0.5543	0.5620	0.5471

Panel B: Six years descriptive statistics on operating performance for acquiring firms

Indicator	No. of obs.	Mean	S.D.	Min.	Median	Max
ROA	2291	3.00%	0.0970	-92.39%	3.77%	30.93%
ROE	2291	4.56%	0.2669	-174.03%	7.26%	81.08%
Profit Margin	2291	1.02%	0.3735	-234.87%	5.89%	51.27%
Sales Growth	2291	38.40%	0.0698	-90.55%	19.41%	746.81%
Leverage	2291	0.5082	0.2090	0.0081	0.5161	3.6744

Table 8: Statistical analysis of differences between pre and post acquisition performance and leverage

This table reports the difference analysis between acquiring firms' pre- and post-acquisition operating performance and leverage for the full sample and sub-sample. *Pre* is defined as pre-acquisition three years averaged value, and *Post* is defined as post-acquisition three years averaged value on *ROA*, *ROE*, *Profit Margin* and *Sales Growth* and *Leverage*.

Panel A: Full sample

	Pre		Post		(1) vs (2)		Pre		Post		(1) vs (2)	
	Mean (1)	Mean (2)	t-value	Pr> t	Median (1)	Median (2)	z-value	Pr> z	Median (1)	Median (2)	z-value	Pr> z
ROA	3.45%	1.58%	3.08	0.0022	3.93%	3.16%	-1.0860	0.2775	3.93%	3.16%	-1.0860	0.2775
	n=383	n=166			n=383	n=166			n=383	n=166		
ROE	3.38%	0.32%	1.59	0.1132	7.46%	6.52%	-1.4574	0.1450	7.46%	6.52%	-1.4574	0.1450
	n=383	n=166			n=383	n=166			n=383	n=166		
Profit Margin	0.58%	-1.89%	0.94	0.3497	6.06%	5.02%	-0.7147	0.4748	6.06%	5.02%	-0.7147	0.4748
	n=383	n=166			n=383	n=166			n=383	n=166		
Sales Growth	36.41%	30.14%	1.01	0.3119	21.53%	23.49%	0.2138	0.8307	21.53%	23.49%	0.2138	0.8307
	n=383	n=166			n=383	n=166			n=383	n=166		
Leverage	0.4900	0.5479	-3.06	0.0023	0.4926	0.5399	2.6276	0.0086	0.4926	0.5399	2.6276	0.0086
	n=383	n=166			n=383	n=166			n=383	n=166		

Panel B: SOE VS Non-SOE

	SOE		SOE		SOE		SOE		SOE		SOE		SOE						
	Pre	Post	Mean (1)	Mean (2)	t-value	Pr> t	Median (1)	Median (2)	z-value	Pr> z	Pre	Post	Mean (1)	Mean (2)	t-value	Pr> t	Median (1)	Median (2)	z-value
ROA	3.64%	2.30%	2.30%	3.96%	2.11	0.0354	3.96%	3.92%	-0.0735	0.9414	3.03%	3.92%	-0.61%	2.57	0.0111	3.87%	2.41%	-1.9816	0.0475
	n=262	n=125	n=125	n=262			n=262	n=125			n=121	n=262	n=41			n=121	n=41		
ROE	4.32%	0.17%	0.17%	7.39%	2.07	0.0394	7.39%	6.55%	-1.11591	0.2464	1.34%	6.55%	0.77%	0.12	0.9015	7.74%	6.45%	-1.2610	0.2073
	n=262	n=125	n=125	n=262			n=262	n=125			n=121	n=262	n=41			n=121	n=41		
Profit Margin	3.46%	0.33%	0.33%	6.51%	1.22	0.2226	6.51%	5.24%	-0.9445	0.3449	-5.65%	5.24%	-8.68%	0.45	0.6532	5.58%	4.05%	-0.5404	0.5889
	n=262	n=125	n=125	n=262			n=262	n=125			n=121	n=262	n=41			n=121	n=41		
Sales Growth	33.00%	32.68%	32.68%	21.98%	0.05	0.9592	21.98%	24.32%	0.7950	0.4266	43.78%	24.32%	22.37%	1.39	0.1664	20.99%	19.06%	-0.1801	0.8570
	n=262	n=125	n=125	n=262			n=262	n=125			n=121	n=262	n=41			n=121	n=41		
Leverage	0.4720	0.5133	0.5133	0.4708	-2.12	0.0346	0.4708	0.5297	2.7492	0.0060	0.5291	0.5297	0.6532	-2.85	0.0050	0.5314	0.5872	0.9082	0.3637
	n=262	n=125	n=125	n=262			n=262	n=125			n=121	n=262	n=41			n=121	n=41		

Table 8: Statistical analysis of differences between pre and post acquisition performance and leverage (Continued)

	<i>Cash</i>						<i>Stock</i>									
	Pre			Post			Pre			Post						
	Mean (1)	Mean (2)	t-value	(1) vs (2)	Pr> t	z-value	Pr> z	Mean (1)	Mean (2)	t-value	(1) vs (2)	Pr> t	Median (1)	Median (2)	z-value	Pr> z
ROA	3.89%	1.43%	3.54	0.0005	4.13%	3.12%	-1.4154	0.1570	0.58%	1.99%	-0.25	0.8029	1.34%	1.35%	-0.5345	0.5930
	n=254	n=117			n=254	n=117			n=24	n=3			n=24	n=3		
ROE	5.54%	0.58%	2.63	0.0089	7.91%	6.45%	-2.3143	0.0207	-5.09%	3.36%	-0.43	0.6700	4.03%	2.81%	-0.5345	0.5930
	n=254	n=117			n=254	n=117			n=24	n=3			n=24	n=3		
Profit Margin	2.95%	-1.36%	1.63	0.1039	6.67%	4.06%	-1.6385	0.1013	-21.90%	7.28%	-0.86	0.3998	2.79%	0.94%	0.6682	0.5040
	n=254	n=117			n=254	n=117			n=24	n=3			n=24	n=3		
Sales Growth	37.60%	36.06%	0.21	0.8371	23.07%	25.15%	1.0394	0.2986	19.89%	6.58%	-1.81	0.0819	6.48%	23.83	-0.5345	0.5930
	n=254	n=117			n=254	n=117			n=24	n=3			n=24	n=3		
Leverage	0.4881	0.5463	-2.58	0.0102	0.4919	0.5563	2.6016	0.0093	0.5267	0.4729	0.48	0.6349	0.4898	0.4804	-0.5345	0.5930
	n=254	n=117			n=254	n=117			n=24	n=3			n=24	n=3		
Panel D: Domestic VS Cross-Border																
	<i>Domestic</i>						<i>Cross-Border</i>									
	Pre			Post			Pre			Post						
	Mean (1)	Mean (2)	t-value	(1) vs (2)	Pr> t	z-value	Pr> z	Mean (1)	Mean (2)	t-value	(1) vs (2)	Pr> t	Median (1)	Median (2)	z-value	Pr> z
ROA	3.42%	1.56%	2.98	0.0030	3.93%	3.17%	-1.0090	0.3130	4.37%	2.05%	0.80	0.4352	3.93%	2.49%	-0.5424	0.5875
	n=370	n=161			n=370	n=161			n=13	n=5			n=13	n=5		
ROE	3.21%	0.24%	1.50	0.1348	7.47%	6.68%	-1.3863	0.1657	8.08%	2.87%	1.03	0.3169	5.30%	5.88%	0.5114	0.6091
	n=370	n=161			n=370	n=161			n=13	n=5			n=13	n=5		
Profit Margin	0.41%	-2.08%	0.93	0.3554	5.65%	4.94%	-0.8203	0.4120	5.28%	4.14%	0.09	0.9318	9.11%	6.17%	-1.5342	0.1250
	n=370	n=161			n=370	n=161			n=13	n=5			n=13	n=5		
Sales Growth	36.84%	30.08%	1.06	0.2900	20.99%	24.05%	0.1229	0.9022	24.14%	31.79%	-0.46	0.6530	13.88%	25.79%	0.5114	0.6091
	n=370	n=161			n=370	n=161			n=13	n=5			n=13	n=5		
Leverage	0.4891	0.5487	-3.09	0.0021	0.4920	0.5433	2.7640	0.0057	0.5164	0.5212	-0.05	0.9575	0.5716	0.4998	-0.5144	0.6091
	n=370	n=161			n=370	n=161			n=13	n=5			n=13	n=5		

Table 9: Results for a cross-sectional OLS regression analysis of the CARs for acquiring firms

This table reports the results of cross-sectional regressions for acquiring firms. The dependent variable is five-day event window CAR (-2,+2) in model 1 and three-day event window CAR (-1, +1) in model 2. The independent variables are defined as follows: ROA (in model 1.1 and model 2.1), ROE (in model 1.2 and model 2.2), Profit Margin (in model 1.3 and 2.3) denote profitability; Sales Growth denotes annual sales growth rate; leverage is computed as debt divided by total assets.

variable	CAR (-2,+2)			CAR (-1,+1)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Intercept	-0.0477 (0.1990)	-0.0612* (0.0889)	-0.0576* (0.1091)	-0.0291 (0.3183)	-0.0389 (0.1698)	-0.0366 (0.1965)
ROA(pre)	-0.1524* (0.0701)	-	-	-0.1059* (0.1088)	-	-
ROE(pre)	-	-0.0434* (0.0729)	-	-	-0.0269 (0.1579)	-
Profit Margin(pre)	-	-	-0.0327** (0.0400)	-	-	-0.0204* (0.1038)
Sales Growth(pre)	-0.0141 (0.2035)	-0.0147 (0.1819)	-0.0128 (0.2456)	-0.0037 (0.6716)	-0.0045 (0.6045)	-0.0033 (0.7033)
Dif_Leverage	0.0206 (0.3263)	0.0265 (0.2239)	0.0203 (0.3311)	0.0299* (0.0725)	0.0331** (0.0552)	0.0293* (0.0774)
Firm-Value	0.0014 (0.3459)	0.0017 (0.2353)	0.0016 (0.2335)	0.0004 (0.7629)	0.0006 (0.5942)	0.0006 (0.6266)
BHAR(-12,0)	0.0020 (0.8629)	0.0011 (0.9249)	0.0009 (0.8722)	-0.0020 (0.8281)	-0.0025 (0.7837)	-0.0021 (0.8226)
Same-Industry (Dum)	0.0120 (0.2044)	0.0119 (0.2072)	0.0094 (0.3205)	0.0132* (0.0777)	0.0131* (0.0808)	0.0115* (0.1248)
SOE (Dum)	0.0046 (0.6578)	0.0071 (0.5000)	0.0062 (0.5489)	0.0112 (0.1720)	0.0127 (0.1264)	0.0122 (0.1388)
Cash (Dum)	0.0064 (0.5155)	0.0081 (0.4157)	0.0071 (0.4688)	-0.0006 (0.9341)	-0.0013 (0.9628)	-0.0002 (0.9769)
Cross-Border (Dum)	-0.0693 (0.1632)	-0.0687 (0.1675)	-0.0675 (0.8722)	-0.0262 (0.5014)	-0.0262 (0.5027)	-0.0254 (0.5145)
Friendly (Dum)	0.0247* (0.0863)	0.0249* (0.0835)	0.0256* (0.0738)	0.0191 (0.0930)	0.0194* (0.0881)	0.0198* (0.0801)
Private(target)(Dum)	-0.0164 (0.1119)	-0.0157 (0.1272)	-0.0176 (0.0857)	-0.0146* (0.0713)	-0.0143* (0.0791)	-0.0155** (0.0564)
JV(target) (Dum)	0.0270** (0.0504)	0.0271** (0.0501)	0.0271** (0.0491)	0.0256*** (0.0192)	0.0255** (0.0200)	0.0255*** (0.0196)
R2	0.2080	0.2076	0.2149	0.2189	0.2147	0.2195
Adjusted R2	0.1201	0.1195	0.1277	0.1322	0.1275	0.1328
N	121	121	121	121	121	121

*, **, ***, denote statistical significance at 0.1, 0.05, 0.01 levels, respectively.