Chinese Mergers and Acquisitions: Performance and Factors

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To my Father

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ABSTRACT

In this thesis, I reviewed the past mergers and acquisitions in China, calculated the acquirer post mergers short and long run performances, indentified the factors related to the performances, and discussed the possible reasons of these factors. Firstly, I reviewed past literature of mergers and acquisition. Especially, the Chinese merger and acquisition activity, including three subgroups: Chinese overseas merger, Chinese domestic mergers, and foreign overseas mergers. Second, I endeavour to review the past twenty years of M&A activity. I calculated the short and long abnormal return in different time intervals for the three subgroups and offered possible explanations for the results. I also classified different groups based on payment method, acquirer ownership, previous merger experience, target status, merger type, final completion status, and target listing status. Certain groups experience significantly higher abnormal returns than other groups, and different subgroups exhibit significantly different returns. Thirdly, I determined whether buyers are winners or losers and to identify the factors that affect buyer performance. Several newly recognized factors in the Chinese market, such as state owned ownership, final completion status, and momentum effect are applied in the analysis. Finally, I compared the post-merger results and differences in explanatory factors between different groups and markets with the results of other researchers. I used different time interval short and long run abnormal return as dependent variables. The independent variables were in three groups, including acquirer financial characteristics, deals unique characteristics and momentum effect factors. These factors have different impacts on different groups. In the short-term, financial factors, merger characteristics and previous performance have very limited effects on returns. The impacts of variables on short term abnormal return are largest for Chinese domestic mergers and acquisitions, moderate for foreign buyer mergers, and non-existent for Chinese overseas mergers. In the long run, these factors have more explanatory power.

The material contained in this thesis has not been previously submitted for a degree in this or any other university.

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CHAPTER 1 M&A OVERVIEW AND LITERATURE REVIEW

1.1 Overview of M&A Study

Under the globalization process, the world market has become more closely integrated and business trends have shifted from traditional business growth to growth through mergers and acquisitions (M&As). In the modern business environment, M&A has become powerful tool for rapidly gaining a competitive advantage and achieving business growth. In the context of the globalization process, domestic mergers enable rapid firm growth and foreign mergers facilitate global business expansion. The term M&A refers to a transaction whereby the acquiring firm acquires the target firm by wholly or partially controlling the equity of the target firm and thereby obtaining decision-making rights. There are various types of mergers, including conglomerate, horizontal and vertical mergers. Although the term M&A is broadly used, there are many different forms and methods of M&A activity, and each one of them tends to achieve different business goals. Selecting the most effective form of M&A is considered one of the most significant decisions faced by market players.

From both practical and academic perspectives, there are many issues related to M&A activities, and these issues are key factors in the success of the M&A process. For example, from a practical perspective, investment banking and private equity investors must understand 1) the motivation for merger activity; 2) the essential elements of a successful M&A process, including due diligence, post-merger integration, corporate governance, etc.; 3) the feedback and re-adjustment process, including the identification of short-term and long-term returns for both the acquirer and the target firm, as well as the strategy and reorganization of the target company; 4) current merger trends, or popular acquisition targets in the market; 5) factors that contribute to a successful M&A and 6) likely merger trends in the foreseeable future, including in terms of regions, industries and business types. Of course, these issues cannot resolve the entire M&A puzzle, but they certainly contribute to the illumination of certain fundamentals. Different cases may have unique circumstances that must be taken into account, and there is no single formula that works for all M&A activities.

The academic study of M&A corresponds to the practical issues. In particular, researchers have focused primarily on the following four areas: 1) the assessment of acquirer and target post-merger gains to determine the "winners and losers" of M&A transactions; 2) reasons for winning and losing M&A transactions; 3) factors that affect M&A, including both neoclassical factors and new behavioural factors; and 4) merger waves and factors that drive merger waves (which is a more recent research topic). The basic motivation for M&A, for both acquirers and targets, is synergy, which benefits both parties to the transaction. Neither party wants to enter into an agreement that puts it in a worse post-merger position relative to its pre-merger position. Making one plus one equal more than two has been the key issue on which most academic studies focus.

Turning our attention towards China, I can detect a clear path in the history of Chinese M&A activity. In the late 1970s, China began to implement economic and political reform and the opening-up policy, the combination of which has caused the Chinese economy to steadily increase over the past thirty years. China's gross domestic product has grown at a double-digit rate during this economic boom. The growth of China's economy should be attributed to its flourishing international trade. In particular, in 2000, China acceded to the World Trade Organization, as a result of which Chinese firms began to expand their businesses overseas and the role of the Chinese market in the global economy became more significant. China's lengthy economic boom caused it to become the second largest economy in the world. During this boom period, many Chinese companies became involved in the global market, drawing attention from every corner of the world. These successful Chinese companies, which include Haier, Hisense, Baidu and Alibaba, precisely understand the importance of expansion. These firms have used their unique competitive power to become bigger players in the global market. Among the various strategies for business expansion, M&A is considered one of the fastest means of growth. Skilful management teams excel at acquiring the knowledge and resources necessary for making successful deals in the market. The frequency of both domestic and cross-border M&A has increased significantly in recent years. Based on a careful observation and analysis of M&A activity, I classify Chinese M&A into three major groups: Chinese overseas mergers, in which a Chinese firm acquires a foreign target; Chinese domestic mergers, in which a Chinese firm acquires a Chinese target; and

foreign overseas mergers, in which foreign firm acquire a Chinese target.

Regarding the Chinese overseas merger category, as China became a global factory and its economy grew stronger, Chinese domestic firms began to expand their businesses throughout the world, acquiring outside resources to support their globalization targets. In 1986, China International Trust Investment Company (CITIC) paid 4.7 million Canadian dollars to acquire a pulp mill in Castlegar, Canada, and this transaction marked the beginning of the Chinese cross-border merger phase. Since then, an increasing number of Chinese firms have looked abroad for foreign merger targets. There are several motivations for Chinese cross-border mergers, including market expansion, the acquisition of cheaper resources, the acquisition of new technology, and even the appreciation of the Chinese currency. Chinese firms also believe that Western countries have better business models or possess advanced technology that is essential for product improvement. The most attractive means of connecting to foreign resources is the acquisition of a foreign firm. Thus, it is easy to understand why so many Chinese firms have attempted to launch M&A deals. Recently, due to the appreciation of the RMB (the Chinese currency) and to the oversupply of money by the Chinese central bank, the Chinese market is highly liquid, which has spilled over to the rest of the world. However, most overseas mergers have been relatively unsuccessful, and Chinese buyers have encountered many post-merger difficulties relating to, for example, a lack of fit between the organizational cultures of the target and acquirer and the unfamiliarity of Chinese firms with the domestic laws of target firms. These obstacles prevented many deals from achieving their expected outcome. For example, in 2003, Shanghai Automotive Industry Corporation acquired a 48.92% share in the Korean firm SsangYong Motor Company. However, due to the unfamiliarity of Shanghai Auto with the foreign legislation and to ineffectual management, SsangYong filed for bankruptcy protection in 2009 and Shanghai Auto completely lost control of the target firm. Other post-merger failures include the investment of Ping An Insurance in Fortis Groups, which resulted in a 17.5 billion RMB loss, and China Investment Corporation’s investment in Blackstone, which resulted in a 3 billion USD loss. In short, the popularity of M&A does not guarantee their success. The Chinese market has learned many important lessons from failed M&As. Many entrepreneurs believe that the best company for the modern world is a massive enterprise. Some entrepreneurs even believe that they should aim to become

"too big to fail" as a means of protecting all the hard work and effort they have put into their businesses. Consequently, a lack of due diligence and thorough analysis has resulted in many failed deals.

With respect to the domestic merger category, China's thirty-year, government and market-driven economic boom and rapid economic structural reform have prompted an increasing number of mergers in China, due the motivations mentioned above. However, there are three main factors that drive domestic mergers. The first factor is state owned enterprises (SOEs). Compared to other capitalist economic systems, the Chinese government plays a greater role in social and economic affairs. SOEs are controlled by the government, which in certain cases not only maximizes shareholder value in financial terms but also benefits the national strategy and political policies. SOE mergers are driven primarily by the government and are intended to promote economic reform, resource control and the national strategy. Therefore, government-driven M&As are usually quite large. For example, 180 billion RMB was spent to close the deal between China Unicom and China Netcom. That merger was government driven and related to telecom industry reform and strategy adjustment. The second factor is joint venture transactions. Before China joined the WTO in 2000, China's Foreign Investment Law proscribed foreign firms from forming joint ventures in China except in partnership with domestic firms. However, since 2000, foreign investors are permitted to establish wholly foreign-owned firms in China. This deregulation in the business area has prompted a numerous foreign investors to engage in joint ventures or establish new companies in China as a means of expanding their businesses. The third factor is privately owned enterprise mergers. For the past several years, the Chinese government has encouraged and protected the development of privately owned enterprises. A large number of private enterprises are growing rapidly and have adequate capital and ability to expand both globally and domestically. The combination of these three factors shows that the Chinese M&A market is dominated by large players that are either state owned or large enough to purchase foreign entities. Small domestic players are not yet capable of having a major impact on the market. However, I cannot deny the growth of these small and medium enterprises. These players somehow form the engine of economic growth, and it is likely that I will see an increasing number of domestic M&A in the very near future. As the participation of small and medium firms in M&A increases, the Chinese M&A

market will become more balanced.

Regarding foreign overseas mergers, before China became a member of the WTO in 2000, foreign investors were restricted to a less than 50% share in joint venture companies, as I mentioned previously. However, due the large and expanding Chinese market, China represents a significant opportunity for all investors. Foreign companies are not satisfied with a less than 50% share. As foreign investors enter deeper into the Chinese market, it becomes more likely that they will obtain a comparative advantage relative to other competitors. Most foreign buyers are aiming to quickly expand their businesses, obtain unique licenses or access distribution channels in China. At the beginning of the 1990s, the initial foreign buyers aimed to enter the Chinese market. During that period, foreign mergers were subject to surveillance by the Chinese government and every merger had to be approved by the Chinese ministry of commerce. Furthermore, Chinese SOEs were confronted by the economic depression and structural reform. Therefore, from 1990 to 2000, most mergers transpired between internationally well-known enterprises and large Chinese SOEs with significant market shares. For example, China FAW Group Corporation, which is one of the largest automobile manufacturers in China, created a joint venture firm with the German company Volkswagen. The biggest domestic battery manufacturer, Fujian Nanping Nanfu Battery Company, was acquired by U.S. company Gillette. During the first ten years, the strategy of foreign buyers was to acquire firms with the largest domestic market shares to rapidly obtain market presence and distribution channels for their own brands. Moreover, in addition to deregulation and the encouragement of foreign investment, China offers cheaper resources and labour. Hence, the second wave of mergers aimed to acquire cheaper resources, and an increasing number of small foreign firms acquired entry into labour-intensive industries, especially in the eastern part of China. Acquirers built their factories and manufactured their products in China and then exported the products to their respective home countries. Another merger wave occurred due to government deregulation. For example, banking and insurance industry deregulation has driven numerous mergers and joint ventures involving foreign banks and insurance companies and domestic banks. Similar tendencies were seen in the industrial logistics and real estate areas, among others.

As I discussed above, as globalization increased and China's thirty-year economic boom continued, M&A played a more important role in China's economic growth and business activity. However, despite the hot merger industry in China, academic research related to Chinese M&A remains scarce. Thus, the first aim of my thesis is to review the research of Chinese M&A activity, including Chinese overseas merger, Chinese domestic mergers, and foreign overseas mergers. Previous literature on M&As focuses primarily on developed markets, such as the US, UK, etc. Although several studies related to the Chinese market exist, they are not classified by acquirer and target groups. Second, I endeavour to review past research on M&As and the past twenty years of M&A activity in China. The research data cover twenty-two years because the Chinese stock exchange was rebuilt in 1990. Third, I try to determine whether buyers are winners or losers and to identify the factors that affect buyer performance. Several newly recognized factors in the Chinese market, such as SOE ownership, final completion status, and momentum effect are applied in the analysis. Finally, I will compare the post-merger results and differences in explanatory factors between different groups and markets with the results of other researchers.

The chapters are organized as follows. **Chapter 1** presents an overview of previous M&A literature and methodologies. Chapters 2, 3 and 4 address the main part of our research. I aim primarily to answer three questions. First, what has transpired in the past 20 years in the Chinese M&A market? Second, what is the performance of acquirers in both the short and long terms? Third, what factors affect M&A performance? **Chapter 2** explores Chinese firms' cross-border M&A activity; **Chapter 3** examines Chinese domestic M&As; and **Chapter 4** considers foreign acquirers' M&A activities in China. **Chapter 5** presents a comparative study and the conclusion.

1.2 Review of Acquirer Post-Merger Performance

Both academic and empirical research focuses on the motivations and performance of M&A acquirers. Generally speaking, the ultimate aim of a merger is to create synergy value through the combination of two firms. Merger motivations include market expansion, access to resources, improved operating efficiency, business diversification, and avoidance of regulation. By achieving these goals, the acquirer can create

synergies and generate a positive performance (Bradley, Desai, and Kim (1988), Seth (1990a) and Seth, Song, and Pettit (2000)).

Empirical studies use different methods and data from different countries to calculate whether mergers achieve positive synergies. However, the results vary. Specifically, although sellers obtain a premium immediately upon completion of the merger, post-merger performance of buyers is ambiguous. Many studies report negative post-merger performance, which gives rise to the M&A paradox: if M&A activity destroys value, why is the number of mergers continually increasing?

This paradox can be explained by behavioural reasons and the research methodology itself. Behavioural reasons mainly include overconfidence regarding market timing, poor cultural fit; agency problems, such as managerial hubris; and self-interest. Other researchers argue that the paradox is due to the incompleteness of the research and maintain that academic insights are not reaching the practitioner community.

1.2.1 Motivations for M&As

There are several motivations for M&A activity. First, M&As allow firms to expand their production and markets internationally (Montgomery & Singh, 1987). Rapid globalization and increasingly intense competition require business participants to respond quickly to the market. In this regard, M&As are considered a powerful tool for rapid expansion. As mentioned previously, M&As are one of the fastest methods for expanding into a new market or area. In addition, Chatterjee (1986) suggests that expansion into new markets through M&A activity can decrease the dependency of certain customer groups and increase consumer bargaining power (Hitt, Hoskisson, & Ireland, 1990). Boateng et al. (2008) found that the acquisition of market share and market power constitutes one of the highest ranked motives for cross-border mergers by Chinese firms.

The second reason for M&As is the acquisition of proprietary assets, including technology, patents, brand names, local permits and licenses, as well as supplier or distribution networks. Because these assets are unique—some are exclusive and some require time to research and develop—they are also essential for acquirers Barney (1986, 1991). For latecomers that want obtain new technology or enter a new market,

M&As can facilitate the rapid acquisition of technology, research ability and skilled staff. For example, the length of time required to develop and obtain regulatory approval for a patent is significant. However, an acquirer can use the target's patent without undertaking this long and complicated process and quickly integrate the patent into a new product. In short, targets' proprietary assets can help acquirers grow very quickly. After the M&A process is complete, the acquirer can legally access the target's resources, technology and human capital to promote further business growth. These assets are considered the most significant factors in a company's success, and the potential to obtain them through M&A activity motivates acquirers to find the best targets to supplement their businesses. For example, the acquisition of human resources not only brings the existing philosophy of the target firm to the acquirer but also permits brainstorming to generate new ideas when the target's employees join the newly established business model of the merged firm. International M&As in particular unite high-level managers with different educational and professional backgrounds, which is likely to generate exceptional business plans. Boateng et al. (2008) suggest that gaining access to strategic assets, such as natural resources, differentiated products, patent-protected technologies, and superior managerial and marketing skills, is one of the most important motivations for M&As.

The third motivation for M&As is the achievement of operating and financial synergies to improve corporate efficiency (Seth, 1990a). Chatterjee（1986） suggests that there are three types of synergy: Operational, financial and collusive synergy. Synergy can result from cost reductions (Homburg and Bucerius, 2006) or an effective combination of resources (Chatterjee and Lubatkin, 1990) through economies of scale or scope. Financial synergy is related to the decreased financial costs or reduced tax liability of the target firm. The improved corporate efficiency will benefit all financial aspects of the company. The balance sheet and income statement will be enhanced by the M&A process. A strong shareholder background or guarantees can significantly increase investor confidence and decrease financial costs, which will improve the company in the long term.

The fourth motivation for M&A activity is business diversification, which is achieved through conglomerate mergers. The firm has a life cycle and proceeds through seed,

pioneer and mature phases before it eventually starts to decline. Usually, when a business enters the mature phase, it has ample cash assets and a shrinking business. Therefore, firms in this stage begin to seek new business opportunities and endeavour to maintain the firm at a decent size, possibly exploring new areas to further enhance the power of the company. The mature acquirer has sufficient cash flow but lacks investment opportunities in its own industry, whereas the target firm may have good investment opportunities but lacks adequate cash on its balance sheet. Both parties have an interest in merging because a merger would benefit both sides. Conglomerate mergers encourage firms to use internal funds for new investment opportunities to continue growing their businesses. Business diversification through a conglomerate merger may be a key factor in lengthening the mature phase of an established firm, which is exactly what these mature firms are seeking. Seth (1990) notes that cross-border mergers can reduce the costs and risks associated with entry into new foreign markets. Bhagat, Malhotra, and Zhu (2011) suggest that the value of diversification stems from differences in exchange rates and the ability to reduce both the cost of debt and cash flow variance.

The fifth motivation for M&As is the avoidance of regulation and government supervision, both of which are major concerns for firms considering any market actions. Firms are heavily regulated in many areas for the purpose of maintaining a well-managed market environment. Usually, when a firm's ability to implement new ideas is impeded by rules and regulators, the management team seeks to find a different approach that will quickly get the new idea on the right track. M&A presents an attractive option for managers in this context. M&A not only enables a firm to achieve synergy gains and business diversification but also can facilitate the acquisition of special licenses and patents and thereby avoid certain rules and regulations. For example, as mentioned previously, foreign investors are typically not allowed to establish insurance companies in mainland China. However, they can acquire a share of a domestic insurance company and thereby acquire control right of the firm. Thus, in this case, concerns relating to regulations and government supervision are easily resolved through M&A activity. Although this motivation may appear to make little sense, it can occasionally bring about great changes for the acquirer. Due to regulations and government policy, it is difficult to apply quantitative analysis in this area, and different industries and countries are subject to unique

policies. Accordingly, research related to these issues is mainly conducted through the case study approach. For example, Hauge (2014) reviewed U.S. regulatory policies related to radio and television broadcasting and determined that regulators are tasked with maintaining the government's stated policy goals of promoting competition, localism, and diversity. He found that M&As in this industry adapt to existing regulations.

1.2.2 The M&A Paradox

The winner and loser paradox has been the subject of discussion since Kitching (1974) found that mergers have a significant failure rate. According to neoclassical theory, managers' primary task is to maximize shareholder wealth. Regardless of which M&A rationale motivates the parties to a deal, the ultimate goal of both parties is to increase firm value in both the short and long run. Under the plans designed by acquirers and targets, shareholder value should increase post-merger.

To test the "winner and loser effect", researchers usually collect post-merger financial data, such as stock price, return on equity, sales, and earnings, for both acquirers and targets and compare these data with benchmarks. Buchheim et al. (2001) maintain that corporate performance is mainly measured by comparing the return earned on a portfolio of acquiring firms with the return on a risk-adjusted benchmark portfolio. The techniques for comparing different data are not universal, and different studies have used different methodologies to compare different data. The common risk-adjusted return methods include the CAPM model, market model, and Fama-French three-factor model. The statistics selected to measure company performance also vary on a case-by-case basis. I will discuss the different methodologies later.

Although different data and methodologies are applied, empirical studies of post-merger performance clearly show positive short-term returns for shareholders of target firms. However, results regarding short- and long-term benefits to acquirers are ambiguous and even contradictory.

The first group of researchers found that the acquirer suffers a loss after a merger. Kitching (1974) reported failure rates of 46–50% based on managers' self-reports on

European M&As. Rostand (1994) reported an equally poor failure rate (44–45%) using comparable methodology. Sirower (1994) confirmed these results based on the synergy trap hypothesis. Denis and Sarin (1997) conducted numerous empirical studies to confirm value reduction after the implementation of M&A diversification strategies. Agrawal and Jaffe (2000) suggested that acquisitions continue to produce negative average returns similar to those seen historically. Their study also emphasized the significant variation in M&A performance at the firm level. DeLong (2001) suggested that despite the large number of bank mergers over the previous twenty-five years, academic studies have failed to produce consistent evidence of value enhancement, cost savings, and economies of scale for acquirers. DePamphilis (2009) found that bidders earned negative to zero abnormal returns around the announcement date of a deal. He also applied certain behavioural finance factors to explain mergers.

Other researchers have found moderate results. Ferris and Park (2001) provided evidence that the shareholders of acquiring firms suffered a wealth loss of nearly 20% over the 1990–1994 post-merger periods. Bruner (2002) reviewed 119 studies that used various research designs to investigate the profitability of merger activity, including 85 event studies, 15 accounting studies, 13 executive surveys, and 6 clinical or case studies. He concluded that the event studies showed "positive abnormal returns to the seller" but "in the aggregate, abnormal returns to buyer shareholders from M&A activity are essentially zero." Krug and Aguilera (2005) claimed that target firm executives experience considerable acculturative stress and that on average nearly 70% of these executives depart in the first five years following completion of a merger. Becher and Campbell (2005) examined a variety of mergers in the 1990s and found no excess returns above market returns and determined that losses occur when there is significant branch overlap between merger partners. Schoenberg (2006) stated that the internal managers of acquiring firms report that only 56% of their acquisitions can be considered successful in terms of the original objectives.

The literature generally concludes that M&A sellers are significant winners after mergers. However, acquirers experience a high failure rate and most acquirers do not realize increased shareholder wealth in the short term. Whether wealth increases in the long term remains uncertain. Explanations for post-merger losses include the agency

problem, in which the decision maker driving the merger is motivated primarily by self-interest and hubris, which destroys value. This result gives rise to the M&A paradox: why are acquirers are willing to buy a firm when they face such a high probability of failure?

1.2.3 Possible reasons for the M&A Paradox

Academics offer various explanations for the "winner and loser effect". Based on the previous presentation of research findings, there are approximately four possible explanations for the M&A paradox:

First, the agency problem, hubris hypothesis and managerial herding may serve as basic and essential motivations for executives to seek M&A opportunities. The executive's initial goal is not to maximize shareholder value. This conflict of interest has long existed within corporations, and despite the implementation by boards of directors of numerous mechanisms designed to minimize its effect, the agency problem cannot be completely avoided. Jensen and Meckling (1976) suggest that M&As driven by the agency problem occur when managers place their own self-interest ahead of shareholder interests. Jensen (1986) suggests that managers of firms with large free cash flows tend to invest in unprofitable projects instead of returning the money to shareholders. Roll (1986) claims that when the economy is booming, managers may be overconfident about their ability to create synergistic value. Seth, Song and Pettit (2000) investigated a sample of US cross-border acquisitions and found evidence that 26% of these mergers were initiated by managers for their own purposes rather than shareholder interests. They also found evidence of hubris, which caused managers to overvalue their targets. However, their overall conclusion was that the majority of transactions were motivated by value creation opportunities.

The second possible reason for M&A failure is a poor cultural fit or lack of cultural compatibility. Especially in cross-border mergers, the new shareholders and target management teams both must adapt their previous cultures to the newly established corporation. Poor cultural fit or distrust may cause mergers to fail. Simply put, in an M&A transaction, the target firm obtains what it wants most (i.e., the capital or other strategic resource), but the acquirer has used up much of its cash and is trapped in a

culture it has never before experienced. Thus, post-merger adaptation is much more difficult for acquirers than for targets. When the acquiring company becomes embroiled in cultural problems, the target firm, or the new company, will most likely face difficulties as well. Consequently, the lack of cultural fit or compatibility is in many cases fatal to the new company. Schoenberg (2006) claims that 50–80% of all M&A transactions fail in both ex-ante and ex-post financial terms and explains the high failure rate from a strategic or financial perspective. However, an increasing number of researchers are considering softer issues, such as cultural differences and local employees' attitudes. Ahern, Daminelli and Fracassi (2012) find that three key dimensions of national culture (trust, hierarchy, and individualism) affect merger volume and synergy gains. They suggest that culture has a significant and economically meaningful effect on the volume of cross-border mergers. Slangen (2006) suggests when national cultural distance is relatively long, it is best for acquiring firms to implement a low level of integration and to grant considerable autonomy to the acquired firms to avoid potential cultural clashes and to boost M&A performance. Larsson and Lubatkin (2001) stress that cooperation between employees of the acquired and acquiring firms may help acquiring firms achieve successful acculturation.

Third, as noted by Cooper and Cartwright (2001), academic research is not reaching the practitioner community, which means that practitioners are unaware of the insights provided by M&A research. For example, post-merger financial statement performance does not accurately represent post-merger performance or the ultimate acquisition objectives of the buyer. Nonetheless, the risks of M&As are regularly highlighted by the financial press and there is no shortage of insightful practitioner-orientated texts (Haspeslagh and Jemison, 1991).

Fourth, both the research data and methodology are to some extent incomplete. King et al. (2004) incorporated the variables most frequently studied in the finance and strategy literature and concluded that post-acquisition performance is moderated by variables not specified in existing research. He suggested that the data and approaches typically used to measure post-merger performance are completely inadequate. Certain measurements are even outdated and no longer valid. Therefore, he implied that modifications to both M&A theory and research methodology may be necessary.

1.3 Factors Affecting M&As

Most practical and academic researchers are interested in the factors that affect M&As. I can divide the factors into two general groups: neoclassical factors and behavioural factors.

1.3.1 Neoclassical Factors

Neoclassical factors include: 1) the mood of the bid; 2) form of payment; 3) final completion status; 4) economic disturbance; 5) accounting ratios; 6) capital liquidity; and 7) government policy and government ownership.

Mood of the bid is one of the most commonly discussed factors that affect merger results. Generally speaking, a friendly bid results in greater post-merger cooperation than a hostile bid. A hostile bid also indicates that the target is undervalued by the acquirer. Sudarsanam and Mahate (2006) showed the impact of friendly, hostile, white knight, and multiple hostile bids on the long-term performance of over 500 UK takeovers by examining shareholder returns at various points over a three-year period.

The form of payment used to complete the acquisition has been widely researched by academics. Cash financing indicates that the buyer believes the target is undervalued and thus the buyer prefers to pay cash. Conversely, if the buyer is not confident about the target, it prefers to pay with stock rather than cash because an equity payment allows buyer and seller to share the risk. Loughran and Vijh (1997) asserted that on average, in the five-year period following an acquisition, firms that completed stock mergers have significant negative excess returns whereas those making cash tender offers earned tremendous positive excess returns. Rohdes-Kropf et al. (2005) found that stock acquirers are usually more overvalued than those using cash. In addition, if a buyer uses its equity to pay for a merger, it implies that the buyer believes that its own equity is overvalued. Guo and Petmezas (2012) researched the UK market and concluded that overvalued acquirers who use equity to finance mergers are able to create value by cushioning the collapse of its stock price through the acquisition of the target firm’s assets. In the long run, a merger financed by equity is likely to outperform one financed by cash. Fuller, Netter, and Stegemoller (2002) have reported superior performance for stock acquisitions relative to cash acquisitions.

Final completion status is also an important factor in post-merger performance. M&As are considered value-creating actions, and buyers and sellers share the value created by the deal. If the shareholders of both parties to the transaction gain significant value from the merger, the transaction is much easier to implement and eventually succeed. Conversely, if merger performance seems uncertain or ambiguous, the shareholders of both parties will be less confident and less willing to finish the process. Savor and Lu (2009) argued that more value is created for bidding firms' shareholders if the transaction is successfully completed.

Economic disturbance is also highly relevant to post-merger performance. Economic disturbance is defined as fluctuation during the business or economic cycle that may influence long-term growth. Economic fluctuation creates discrepancies in valuation and affects the entire economic environment, including market capital liquidity and participant confidence, among other factors. These factors affect the willingness of firms to pursue M&As and the valuation of targets. Rhodes-Kropf and Viswanathan (2004) found a positive correlation between merger activity and performance when the stock market is bullish. Gort (1969) suggested that the rationale for mergers is based upon an economic disturbance that leads to industry reorganization and showed that the frequency of mergers varied greatly across industries. In particular, his data showed that the distribution of both acquisitions and acquiring firms is highly concentrated in certain industries. Maksimovic and Phillips (2002) predicted that firms tend to buy assets outside of their primary area of expertise during recessions and to sell unrelated assets to firms expanding their core businesses during booms. According to Fluck and Lynch (1999), conglomerate firms that maximize shareholder value tend to buy firms outside of their primary area of expertise during recessions.

Accounting ratios represent firms' operating conditions. If the target operates more efficiently than the buyer, the accounting ratio is generally much better, as is post-merger performance. There are several accounting ratios that serve as good indicators and are candidates for both research and practice, such as market-to-book value, asset turnover ratio, capital turnover ratio, and growth rate, among others. These ratios are generally considered good parameters that reflect a firm's operating situation and thus they are often used in research. The ratios are also often used in various financial projects and institutions, including auditing firms and both private

and institutional investors. The significant use of accounting ratios makes them very sensitive to any change within the firm. Of course, both acquirers and targets are anxious to make their balance sheets look financially sound to increase the likelihood of M&A transactions.

Tobin's Q ratio is one of the most extensively studied merger parameters. Tobin (1969) created Tobin's Q as the ratio between the market value of a firm and the replacement value of its physical assets. The numerator is market valuation, which is the current market price for existing firm assets, and the denominator is the replacement or reproduction cost, which is also known as the market price for newly produced commodities. Many studies have found that high-Q firms nearly always buy low-Q firms. Lang, Stulz and Walkling (1991) reported that bidder returns are significantly related to cash flow for low-Tobin's Q bidders but less significantly for high-Tobin's Q bidders. Low-Tobin's Q firms have poor investment opportunities compared to high-Tobin's Q firms. Servaes (1991) found that total takeover returns (defined as the abnormal increase in the combined value of both merging parties) are larger when the target has a lower Q than the buyer. Andrade and Stafford (2000) also showed that merger and non-merger investments are positively related to the Tobin's Q of the acquirer. Andrade et al. (2001) researched more than two-thirds of all mergers since 1973 and found that the overall acquirer Q ratio exceeded the target Q ratio. Jovanovic and Rousseau (2001, 2002) summarized the previous study regarding the relationship between Tobin's Q and merger activities and claimed that a firm's investment rate should rise with its Tobin's Q.

Market-to-book value is a new indicator used in M&A research. Rhodes-Kropf et al. (2005) employed regression techniques to decompose the market-to-book value into components that track misevaluation and found that in general, the market-to-book value of the acquirer is higher than that of the target.

Market capitalization is an indicator of acquirer size, which represents the acquirer's capacity to generate gains through economies of scale and scope and thus to produce higher returns. Moeller, Schlingemann, and Stulz (2004) suggest the existence of a size effect on acquisition announcement returns; they found that announcement returns for acquiring firm shareholders were roughly two percentage points higher for

small acquirers.

Financial leverage is considered another important factor related to M&As. Lewellen (1971) proposed that an increase in debt capacity was a possible motive for mergers. Maloney et al. (1993) found that bidders with higher leverage have higher abnormal returns. Ghosh and Jain (2000) claimed that firms' financial leverage can increase due either to increased debt capacity or to unused debt capacity from the pre-merger period. They found that the financial leverage of the combined firm increases significantly following the merger. Agyei-Boapeah (2015) broadly reviewed the relationship between M&As and financial leverage and found that cross-border mergers have a negative impact on the financial leverage of acquiring firms.

Capital liquidity is a new relevant factor in M&A research. Capital liquidity comprises three components: market liquidity, industry liquidity and firm liquidity. Regarding market liquidity, when the economy is down, investors usually invest more capital in the market to buy assets at discounted prices. Moreover, investment risk is relatively low in a bear market, which means that the return required to compensate risk is also low. Therefore, the buyer has more incentive and it is easier to pursue a merger when the market is sufficiently liquid. Lakonishok et al.(1992) suggested that merger waves always occur in boom markets because increased cash flows simultaneously increase fundamental values and relax financial constraints, thereby bringing market prices closer to fundamental values.

In terms of industry liquidity, when the economic environment declines, certain industries may experience distress. Due to a lack of investor confidence and market liquidity, firms must sell their assets at undervalued prices to survive the economic decline. Such illiquidity makes assets less expensive in difficult economic times and causes mergers to decline as well. For instance, during the 2008 financial crisis, the financial industry faced a lack of capital liquidity that was so severe that distressed firms such as Bear Stearns and Lehman Brothers were forced to file immediately for bankruptcy protection instead of seeking merger opportunities, a strategy that is often used in a healthy economy. Schlingemann et al. (2002) confirmed that industry-specific asset liquidity is an important determinant of the assets that will be divested. In addition, Eisfeldt and Rampini (2003) confirmed that variations in capital

liquidity have a significant impact on the degree of total capital reallocation in the economy; the authors also claimed that the level of capital liquidity is cyclical. Harford (2005) supported the notion that capital liquidity causes industry-level merger waves to cluster in time to create aggregate-level merger waves.

Regarding firm liquidity, if a firm has excessive cash flow, it will have a greater incentive to invest in new projects or to expand its business. Harford (1999) supports this argument by showing that firms that have amassed large cash reserves are more active in the acquisition market because cash payments are commonly used in M&A transactions. Harford (2005) notes that the misevaluation effect may in fact be the result of a capital liquidity effect.

In addition, market liquidity is an important factor in decisions to sell business segments. Market liquidity is an indicator of how quickly a seller can sell assets without significant movement in market price. Market liquidity depends on market depth and market environment. Shleifer and Vishny (1992) suggested that firms are more likely to divest segments in industries with more liquid markets for corporate assets and in unrelated segments, poorly performing segments, and small segments. Gugler et al. (2006) concluded that overvalued firms incur higher losses than those that are not overvalued because firm misevaluation directly refutes the claim that overvalued acquirers create more shareholder value in the long run.

Government policy and government ownership also have significant explanatory power for post-merger performance. Government policies such as deregulation or antitrust legislation significantly affect merger activity. For example, in the U.S., bank mergers were expressly prohibited by the 1933 Securities Act. Globally, regulations that prevent monopolies exist in numerous fields, such as the financial, airline and energy industries. For example, Hauge (2014) reviewed United States regulatory policy regarding radio and television broadcasting and determined that regulators are tasked with maintaining the government's stated policy goals of promoting competition, localism, and diversity. He found that M&As in these industries adapt to this regulation. In China, government-owned companies play multiple roles in the marketplace. Not only do SOEs aim to maximize shareholder value, they also execute policy adjustments and economic restructuring. SOEs play a very important role in

Chinese mergers and acquisitions both domestically and abroad. Sun and Tong (2003) found that firm performance tends to be negatively related to state ownership. That is, SOEs usually do not perform as well as other firms. However, Zhou et al. (2012) showed that in the Chinese market, state- or government-owned bidders are likely to earn much higher returns than firms that are privately held, which contradicts the claim that state-owned companies usually perform poorly in the market. The authors suggested that acquirers controlled by the government benefit from government assistance, which explains their higher long-term post-merger returns. For example, Cheung, Rau and Stouraitis (2009) maintained that SOEs may benefit from political connections, preferential loans, government-sponsored bailouts and other policies. Du and Boateng (2015) analysed 468 cross-border M&As in China and found that the government and institutions play a major role in creating value for internationalizing firms in emerging markets through cross-border M&As.

1.3.2 Behavioural Factors

Behavioural factors relate mainly to 1) market conditions; 2) managerial behaviour; and 3) the momentum effect. These factors include but are not limited to the market timing hypothesis, managerial herding, the hubris hypothesis, agency costs and the momentum effect. Behavioural finance has recently become increasingly popular in academic circles, and it is appropriate to devote a large part of this research to discussing the impact of behavioural factors. Moreover, there are many empirical studies showing that behavioural factors have a surprisingly large influence on M&A activities.

1.3.2.1 Market Conditions

Market conditions are stock market conditions that may affect merger performance. As mentioned above, acquirers prefer to use overvalued stock rather than cash to pay the target. Stocks are usually more likely to be overvalued in up trending markets, and acquirers can use these high-priced stocks to buy undervalued target firms. In the long run, when the peak phase is over and the market starts to decline, the price of overvalued stock starts to decrease. The purchase of an undervalued target with overvalued stock allows the buyer to mitigate the decrease in its stock price.

The fundamental assumptions underlying the market conditions factor is that financial

markets tend to be inefficient and to incorrectly value firms, but managers are able to make rational decisions regarding whether to initiate mergers or to sell an overvalued firm. Once the market is efficient, arbitrage opportunities no longer exist and all valuation will be reflected in the market price, regardless of whether the valuation is correct. Intelligent managers of acquiring firms should endeavour to capture market inefficiency and take advantage of firm misevaluation. To do so, managers must actively seek the best deals in the market.

When the market increases from its bottom to its peak, it is usually filled with bubbles and the majority of stocks are overvalued. The rational manager would prefer to use overvalued stock to buy undervalued targets because using overvalued stocks is essentially equivalent to paying a lower price. Therefore, a bull market generates more opportunities for potential acquirers and more mergers should occur when the market is hot. For example, consider a textile firm that has a real value of approximately 10 million but is valued as high as 20 million in the boom market. The rational executive may decide to sell 50% of the company's stock and use the proceeds to buy a cotton farm that is valued at 8 million. This transaction leaves both buyer and seller better off. The bidder uses assets with a real value of 5 million to acquire an asset worth 8 million, and the seller of the asset receives a premium of 2 million. In a booming and inefficient market, both buyer and seller are able to exploit arbitrage opportunities for profit. Similarly, there should be a significant number of firms with overvalued assets in a bear market and thus M&A activities are prevalent when the market peaks.

Shleifer and Vishny (2003) argued that firms should use overvalued equity to acquire a less overvalued target to cushion the long-term loss experienced by shareholders by increasing the intrinsic value of the bidding firm. They found that 1) the number of M&As is quite proportional to stock market performance when the stock market is hot, more M&As will occur and they will rarely be paid in cash; 2) the volume of stock acquisitions increases tremendously with the dispersion of valuations among firms; and 3) the managers of targets in stock acquisitions are likely to have relatively short horizons or, alternatively, to get paid for completing the deal. These findings reveal that firms are very skilled at buying targets with overvalued equity and that the timing is usually perfect. Jovanovic and Roussean (2002) showed that periods characterized

by high levels of merger activity are highly correlated with high market valuation. Dong et al. (2006) used accounting data to estimate fundamental value and found evidence consistent with the behavioural explanation of merger activity. These findings are in line with those of Shleifer and Vishny (2003), who believed that market bubbles increase the frequency of merger activity. Rhodes-Kropf and Viswanathan (2004) developed a model to analyse rational managerial behaviour and uncertainty regarding sources of misevaluation that would explain the correlation between market performance and merger waves. In their model, rational targets without perfect information will accept more bids from overvalued bidders during market valuation peaks because the targets overestimate synergies during these periods. A target may conduct a valuation process using an overvalued price and over optimistic expectations based on current market conditions. Because the target fails to recognize the valuation bubble, it is happy to accept the payment offered. Savor and Lu (2009) used US market data to determine that stock-financed acquisitions are likely to create more shareholder value through market timing and to significantly outperform acquirers who do not use equity as payment. Zhou et al. (2012) suggested that announcement day returns are determined by market conditions; higher synchronicity leads to higher announcement premiums in a hot market and to lower announcement discounts in a cold market.

1.3.2.2 Managerial Behaviours

Although neoclassical factors are able to explain a significant portion of merger behaviour, I cannot ignore the importance of managerial behaviour, which has a significant influence on M&A activities. Although there are dozens of managerial behaviours that might be relevant in this regard, three behaviours are particularly worthy of discussion: managerial herding, the hubris hypothesis, and agency cost.

Herding behaviour describes individuals in a group that act together without planned direction. Managerial herding occurs when certain industries exhibit initial post-merger abnormal returns and the managers of other firms try to imitate these successful examples by merging with the same type of target. Because market conditions are improving, previous successful mergers are perceived as good examples for the entire industry. An increasing number of acquirers will imitate the winner by merging with similar firms until a large number of merger failures are seen.

M&A activity will slow down or stop when the industry realizes its mistake. Herding behaviour can help explain merger waves in certain industries. However, it is important to recognize that typical managerial herd behaviours involve little rationality. Follower firms treat the successful merger as the only example and fail to analyse their own situations. Because M&A transactions usually vary considerably by case, failing to consider the uniqueness of each transaction or blindly following another firm's strategy is likely to result in business disaster. Although the merger that these firms are trying to imitate took place within the same industry, there are thousands of characteristics that are unique to each case, making the 'copy and paste' approach completely unworkable.

The hubris hypothesis refers to the phenomenon of managerial overconfidence regarding the ability to create synergistic value when the economy is booming. Nelson (1959) emphasized that mergers are highly concentrated in time and cluster during periods of high stock market valuation and that the means of payment is typically stock. Andrade et al. (2001) confirmed this assertion and showed that the preponderance of stock acquisitions is higher in high-valuation markets. Verter (2002) presented systematic evidence that merger activity increased in higher-valuation markets. He also found that 1) this correlation is driven by stock-based acquisitions; 2) a high incidence of stock-based acquisitions predicts low subsequent market returns, suggesting overvaluation; and 3) high levels of merger activity are associated with a higher dispersion among valuations. Roll's (1986) explained the hubris hypothesis of corporate takeovers, which maintains that financial markets are rational but corporate managers are not. He suggests hubristic CEOs overestimate their capacity to create value when buying targets. These CEOs believe that their valuation is correct and that the market price does not reflect the full economic value of the combined firm. Hubris is therefore a cognitive bias that leads to irrational decision making in uncertain situations.

Agency costs involve managers' incentives to use M&A activity to increase their power or compensation or to create more opportunities for promotion. Managers tend to maximize their short-term personal gains rather than long-term company benefits. For example, if a manager has an opportunity to cause a rapid increase in stock price, it is very likely that the manager will take this opportunity. Merger waves may occur

because of managerial competition within a certain industry. Managers become trapped in psychological gaming and forget their responsibilities as executives of a firm. This meaningless competition can generate a great deal of irrationality, indicating that merger waves are strongly influential. For example, in recent years, the Chinese government has stopped approving licenses for financial trust firms. It is widely believed that the reason why most acquirers in financial conglomerate mergers are willing to pay a large premium to buy another trust firm is to acquire its license. Jensen (1986) claimed that self-interested managers employ mergers as a vehicle to build business empires as opposed to distributing or retaining excess cash for shareholders. Firm value is destroyed through unnecessary investments. The agency problem has a negative impact on M&A activities and decreases the effectiveness of resource allocation.

1.3.2.3 Momentum Effect

The momentum effect relates to firms that use M&As as a means of improving the efficient allocation of resources and operations, which is essential to profit maximization. A firm's assets and transactions are closely related to the firm's historical performance and productivity. Each buyer and seller has its own comparative advantage in its industry. Several studies have examined the financial performance of firms before and after mergers. For example, Matsusaka (1993) examined the ex-ante financial performance of firms before they merged, and Maksimovic and Phillips (2002) suggested that a firm with greater productivity than the industry average will tend to acquire assets from less productive firms.

Both neoclassical and behavioural explanations are reasonable from theoretical and practical perspectives. Neoclassical theory focuses to a greater extent on exogenous factors. The philosophy of this theory is that M&A performance is highly related to certain exogenous factors, such as payment method, accounting ratio, capital liquidity, and government regulation and policies. These exogenous factors can be completely controlled by the industry or executives. Exogenous factors occasionally dominate merger waves, and firms like to analyse these factors when making investment decisions. In contrast, behavioural theories relate mainly to endogenous factors. These theories try to explain merger performance based on psychology and cognitive biases. Unlike neoclassical factors, behavioural factors are usually difficult to distinguish,

and it typically takes a longer period of time to show the clear pattern of these cognitive biases. Moreover, there is no single endogenous factor that can have a large impact on M&A activity; rather, these factors tend to work together to shape merger activity. The two groups of theory are complementary but the research is incomplete. In our analysis of M&A phenomena, it would be wise to combine the two groups of theory and determine which theory is most appropriate in different cases. Although I cannot identify a single reason or factor that covers the entire phenomena, learning more about these factors is definitely beneficial.

1.4 M&A study in China

There are few existing studies on Chinese M&As. Those that do exist focus mainly on three areas. The first area of study is post-merger performance, and the results of these studies vary due to the use of different data sets and different methodologies. Second, existing studies focus on factors that affect performance, especially factors that distinguish China from developed countries, such as the participation of SOEs and the political character of mergers. Third, existing studies explore the motivation for M&As, including improvement of shareholder value, diversification, access to new markets, and the acquisition of advanced technology and resources.

Post-merger performance has been widely researched by academia. Due to the different data sets and methodologies employed, the results vary. However, the results are generally consistent with those of studies in developed countries. Specifically, targets are definitely winners, and buyer results are ambiguous. In the short run, buyers generally experience significant positive returns, but long-term returns are unclear. Feng and Wu (2001) use accounting data and factor analysis to formulate an overall evaluation function of corporate performance. They do not find significant change in firm performance during the year in which the M&A is completed, but firm performance improves in the following year and then declines in the third year. Zhu and Wang (2002) analysed 67 M&A cases in 1998 and find that M&A activity improves financial ratios, return on equity and return on assets for both acquirer and target companies. Zhang (2003) applied the event study method to analysis the M&As of Chinese publicly listed companies and found that although the M&As add value to the target company, they have negative effect on the buyers' income and financial

performance. Wang (2007) studied a sample of 618 acquisitions involving Chinese-listed companies and found that the market performance, operating performance and market valuation of acquiring firms in Chinese stock markets decrease significantly after acquisitions, but the earnings management of acquiring firms has a significantly positive effect. Tuan et al. (2007) used a sample of 22 tender offer bids from 2002 to 2006 and found that the short-term abnormal return (-30 to 0 day CAR) is significantly positive but the post-announcement abnormal return is negative. They suggested that the significant pre-announcement price appreciation implies that insider trading and mandatory tender offer events have no impact on the share price of the target firm. Boateng et al. (2008) used data from 27 Chinese cross-border acquisitions between 2000 and 2005 to examine the motivation for and performance of Chinese overseas mergers and found that the buyers experience significant and positive short-term abnormal returns. Chi et al. (2009) used data regarding 1148 M&As of Chinese-listed Companies from 1998 to 2003 and found that the short-term abnormal return (within 6 months) is insignificant and positive and the long-term abnormal return (after 6 months) is insignificant.

These researchers also consider different factors to explain differences in performance. For example, Zhou et al. (2012) found that SOE acquirers perform better, especially in the long term, experiencing 3-year BHARs of 18.02%, which is much greater than the BHARs earned by public investors. Stock return synchronicity is negatively related to merger profitability, and more opaque firms have lower long-term post-merger returns. However, firms with higher synchronicity have higher bidding premiums. Past stock valuation and political issuance also affect merger performance. Chi et al. (2009) found that cash payment has a positive effect and increasing regulation has a negative effect on performance. Wu and Xie (2010) used listed companies' data regarding Chinese cross-border mergers to analyse factors that affect performance, including the managerial capability of acquirers, free cash flow, the proportion of state shares in listed companies, and organizational learning ability. These authors found that SOE status has a positive impact and corporate age and free cash flow do not have statistically significant impacts. Bhabra and Huang (2013) examined 136 M&A deals from 1997 to 2007 that involved Chinese domestic acquirers listed on the Chinese stock exchange and found that the Chinese M&A market is dominated by domestic acquisitions of unlisted targets. They also found that acquirers experience significant

positive abnormal returns around the announcement date and in the three years' post-acquisition. These results are largely driven by state-owned firms, cash payments and acquisitions of related targets. Post-merger performance is related to acquirer ownership, merger type, and changes in capital structure. Du and Boateng (2015) used a sample of 468 firms involved in cross-border M&As and found that Chinese bidders experience wealth gains ranging from 0.48% to 1.52% over a 10-day event window. They suggest that state ownership, formal institutional distance and reforms in the foreign currency approval system exert significant influence on shareholder value.

The motivations of Chinese M&As are consistent with classical explanations. Wang (2007) concluded that M&As of Chinese listed companies are driven by agency or hubris motives and that the synergy effect is generally not realized. Boateng et al. (2008) found that there are multiple motivations for Chinese buyers to engage in cross-border mergers, including international expansion and diversification; increased market share; access to the benefits of the international market; synergy and risk reduction through diversification; and the acquisition of strategic assets such as technology, research and development capabilities, and management skills. However, the data set and time interval used in this study are too limited and long-term performance is not addressed. Boateng et al. (2008) considered 27 cross-border mergers from 2000 to 2004 in which the buyer was listed on the Chinese stock market and found that Chinese overseas mergers are motivated by the desires to enter new markets, diversify, and obtain advanced technology and resources.

1.5 Literature Gap and Contribution

1.5.1 The literature gap

China is a unique economic entity due to its political and economic systems. Therefore, its M&A activities are also unique. There are few studies of M&A issues in China; previous studies focus primarily on the United States, United Kingdom and other European countries. These countries have long histories, and their sophisticated capital markets are leaders in the financial world. The scarcity of research on Chinese M&As is due not to a lack of interest in China's capital markets but rather to its relative newness and instability. Most models and cases are similar to those in

developed markets, and the short tradition of M&A activity in China prevents financial institutions from obtaining sufficient data to complete the research process. In most of the studies discussed above, researchers were limited in terms of data and time intervals. Due to the use of inconsistent data sets, post-merger performance varies. To compare the results of and factors involved in Chinese mergers to those of other countries, I should start by using the same data criteria and data set.

I mentioned earlier that M&As are affected by exogenous, or neoclassical, factors. Many neoclassical factors are considered in studies of M&A data from developed countries, and such factors can significantly explain post-merger performance. In Chinese M&A research, only a limited number of these factors are considered. For example, due to a lack of data, I rarely consider accounting ratios, merger characteristics and momentum factors together. Moreover, in a newly developed country such as China, it is difficult to find data regarding the same exogenous factors considered in developed countries. Because the social formation of China is vastly different from that of Western developed countries, relevant exogenous factors are likely to be different as well. Factors pertinent to mergers in a developing socialist country are highly likely to differ substantially from those in developed capitalist countries. For example, in mainland China, state-owned enterprises play a very important role in the social economy, given that 30% of China's GDP is contributed by SOEs. The Chinese government addresses more economic issues than governments in laissez-faire capitalist states. Thus, I can include certain new factors, such as government regulation and SOE monopolies, as dummy variables in our analysis. For these reasons, formulas and research methods that have traditionally been used to analyse M&As may be inapposite in China. Rather, the use of unique methods or inclusion of unique factors to analyse the Chinese case is more suitable and should be considered a contribution of the present study.

Most of the literature divides M&A transactions into domestic and overseas subgroups and then focuses on a single subgroup. However, performance and factors are rarely compared between the two subgroups. In particular, there are no studies that compare the performances of Chinese acquirers that merge with foreign targets, Chinese acquirers that merge with Chinese targets and foreign acquirer that merge with Chinese targets. The lack of sample cases and statistics has weakened the usefulness

of research on Chinese M&As and reduced the interest of international researchers in the Chinese market.

1.5.2 Contribution

In this paper, I make several contributions to the existing literature. First, I combined two databases together to extend time interval and number of observation for Chinese M&A research. As discussed above, most existing M&A study in China uses case studies or a relatively short sample time interval and limited independent variables. Insufficient data and short time interval may cause bias. In this paper, I employ Thomson One Banker M&A database and the Thomson DataStream database, which include data on all listed-company M&As in China from 1991 to 2011. These data permit a review of Chinese M&As after 1990 since China reopened stock market. And I also take financial ratio, M&As unique characters and momentum factors into consideration, which grandly increasing scope of the independent observation The increasing time interval, scope and numbers of the research sample can reflect the M&As market situations and tendencies more precisely..

Second, this paper divides the database into three subgroups (Chinese overseas mergers, Chinese domestic mergers, and foreign acquisitions of Chinese firms), and compares the results of these subgroups with each other. Most previous literature focuses on only one M&A subgroup rather than comparing them with each other to identify the different factors that affect post-merger performance. I compare the factors relevant to each subgroup and discuss whether these factors are national or universal in character.

Third, I consider certain unique factors in the study of Chinese mergers. For instance, state ownership is considered an important factor in these mergers, and the research confirms that state ownership has significant explanatory power regarding post-merger performance. Moreover, I also consider the ultimate parents of foreign buyers. Typically, foreign buyers are defined as those that are registered overseas. However, in this paper, I consider whether the ultimate parent of a foreign buyer is a Chinese firm and use ‘the ultimate parent is a Chinese firm’ as a dummy variable, which demonstrates significant explanatory power.

Fourth, the paper combines certain explanatory factors to explain post-merger performance. It considers three groups of factors: accounting factors, merger characteristic factors and momentum factors. For accounting factors, in addition to the traditional Tobin's Q and financial leverage ratios, I include several relatively new factors, including market-to-book value and acquirer size, as control variables. Furthermore, I control for merger size, which can have significant impact on target performance, by limiting the sample to transactions worth over 5 million USD. Regarding merger characteristics, I consider final completion status to test whether this status influences performance. One interesting finding is that the final merger status has a significant influence on short-term (within 20 days) performance. The final completion of mergers has a positive relationship with short-term performance, which indicates that stock market investors have "prediction power" for final merger status. Certain other characteristics, such as whether the target is publicly listed, previous experience, etc., are also taken into consideration. Third, I include momentum factors as independent variables to explain performance.

Fifth,, I apply several new factors recently discussed by other researchers and find many differences compare these factors with the previous researchers finding in developed countries：

For the Tobin Q ratio, I found both the domestic short and long run performances have negative relationships with Tobin Q. These results are inconsistent with the previous researchers finding in developed countries. Jovanovic and Rousseau (2001, 2002) summarized the previous study regarding the relationship between Tobin's Q and merger activities and claimed that a firm's investment rate should rise with its Tobin's Q. However the result is controversy in China, the higher the Tobin Q the lower the short run abnormal return. Lang, Stulz and Walkling (1991) reported that bidder returns are significantly related to cash flow for low Tobin's Q bidders but less significantly related for high Tobin's Q bidders. Low Tobin's Q firms have poor investment opportunities, whereas high Tobin's Q firms have relatively better investment opportunities. As the classical explanation, the higher the Tobin's Q, the more productivity the acquirer has. However, both short and long run results in China domestic market showed the higher the Tobin's Q, the great loss the buyer will suffer.

In Chinese overseas mergers, the use of the stock payment method is significantly negatively related to long-term return. The results are controversy compare to the previous studies. Fuller, Netter, and Stegemoller (2002) have reported superior performance for stock acquisitions relative to cash acquisitions. Guo and Petmezas (2012) researched the UK market and concluded that overvalued acquirers who use equity to finance mergers are able to create value by cushioning the collapse of its stock price through the acquisition of the target firm's assets. In the long run, a merger financed by equity is likely to outperform financed by cash. The selected payment method reflects the confidence of both parties regarding the ultimate results of the merger. If the acquirer is confident that the merger will create value, it will prefer to pay cash, whereas an acquirer that is uncertain about the merger benefits will prefer the stock payment method. An acquirer also might choose the stock payment method if its stock is overvalued, which allows the acquirer to use expensive stock to buy cheap assets. The stock payment for the Chinese overseas mergers indicated the long term negative return, the results are inconsistent with the developed countries.

I also tested the momentum effect on M&A acquisitions and found both Chinese overseas and domestic long term performance have ambiguous relationship with the monument effect. For developed country, Rosen (2006) found a positive momentum effect. And for the China mergers, Zhou et al. (2012) found a positive relationship between the past 12-month market index return and the announcement returns for all periods. As I discussed in the previous chapter, this may due to the different sample criterion and the researchers take the Chinese domestic and overseas mergers together. In conclusion, in our study the monument effect in both the Chinese overseas and domestic mergers performances are ambiguous.

For the Chinese domestic long term performance, a completed merger status is negatively related to the acquirer's long-term performance. This result is inconsistent with the past literature in developed country. Savor and Lu (2009) argued that more value is created for bidding firms' shareholders if the transaction is successfully completed. After the merger announcement, if the deal is ultimately withdrawn or remains pending, the acquirer's stock performs better than if the deal is reported as completed. For the past experience, Chinese overseas mergers just at start up phase.

Due to the buyer lack of mergers experiences and unfamiliar with the foreign market most successful acquirers ultimately suffer a loss. In Chinese overseas mergers, the buyer usually overestimates the value created by the merger and ultimately loses.

In Chinese domestic merger, the short run performance is negative related to the state ownership. The past researchers have controversy results with the effect of SOE acquirer on after mergers performance. State ownership of the acquirer is negatively related to the short-term return, especially before the announcement date. The negative effects are more significant pre-announcement than post-announcement, which means that investor confidence in SOE acquirers is low. The SOEs after merger performance in the past literature are controversy. Sun and Tong (2003) found that firm performance tends to be negatively related to state ownership. But Zhou et al. (2012) showed a much higher positive returns for SOE firms after mergers than private company in long run. In our study, I found the investor lack of confidence with SOE acquirers may not be trusted to consistently maximize shareholder profits, the short run performance tend to perform negatively, and the long run impacts for SOEs are uncertain.

1.6 Event Study Methodology and Abnormal Return Calculation

1.6.1 Event Study

In our study, first I need to calculate whether M&A activities truly benefit acquirers. Therefore, I must determine the extent to which they benefit. Then, I need to measure the impact of the M&A event to determine how it affects the real value of the firm. This impact can be measured using an event study. The basic idea of the event study is that the effect of an M&A event will be reflected in the acquirer's stock price. In particular, I are trying identify the event that plays a leading role in affecting the acquirer's stock price and, of course, the reason behind it.

For instance, I define the official M&A announcement as an event and focus on the return to the acquirer's stock around the time window of the announcement event. Then, I examine whether the announcement of M&A activity causes the acquirer's return to differ significantly from the normal period or market return. Although I

know that there are multiple events that occur around the time of M&A activity, the official announcement is one of the most common events. Using the announcement event, I hope to find the overall relationship between events and stock returns. If this approach works as expected, I will proceed from there and delve more deeply into the analysis.

1.6.2 Procedure for an event study

If the event study procedure suggested by MacKinlay (1997) is followed, there are usually five steps. First, I need to define the event of interest and identify the event window. Generally speaking, the initial tasks are to ensure that the measured event is the event I aim to measure and to identify the event period that may affect further examination. In our study, for example, I define the M&A announcement date as an event and the event window will be larger than the specific period of interest. Second, I need to determine the selection criteria for the firms I want to study. In this step, I will define the sample range and summarize sample characteristics. This step is crucial because it helps narrow down the selection size and establishes the target range. Third, I must calculate abnormal returns and determine the difference between actual return and expected normal return in the absence of the studied event. Fourth, based on the previous calculations, I will test whether the abnormal return is significantly different than the expected normal return. In this step, I need to define the null hypothesis and determine the testing framework. Finally, a thorough analysis should be conducted and a final conclusion drawn. The work summary should include not only sufficient results but also the analytical deductions. The event study is reliable only when this procedure is logically followed, and skipping any necessary step will lead to incomplete and inaccurate results. Note that several of these steps involve subjective judgement, and minimizing the effect of subjectivity is a crucial challenge for any researcher.

1.6.3 Short-term and Long-term Event Study

To conduct an event study, I must determine the event window, that is, the period of interest in which the event has an effect. The event window usually lasts several days and includes at least the announcement day and the following day because the market needs time to react to the announcement. The periods prior to and after the event must be taken into consideration.

There are two general types of event windows: short-term and long-term. To test the short-term effect, I focus mainly on the acquirer's short-term stock price, which reflects investor expectations regarding the acquirer's merger decision and strategy. The long-term event window is used mainly to test for the long-term synergistic effect following the M&A event, which reflects fundamental firm operations. Daily data are typically used to calculate short-term (within 30 days around the announcement) abnormal returns, and monthly data are usually employed to determine long-term (1 year or longer) abnormal returns. I believe that the frequency of the data obtained from the market should serve as the most basic indicator for event windows. Both short- and long-term event windows provide us with good contexts in which to analyse the announcement effect.

Nevertheless, both short- and long-term data have certain strengths and weaknesses. When I apply daily data, one of the advantages is that "daily expected returns are close to zero and so have little effect on estimates of unexpected (abnormal) returns" (Fama 1998). Brown and Warner (1985) also claimed that the characteristics of daily data can be advantageous in cases of data that present unusually high autocorrelation, which cause the variance to increases, making daily data more convenient in the context of event study methodology. From a statistical perspective, daily stock returns depart more from normality than monthly returns, as determined by Brown and Warner (1985), and the estimation of parameters based on daily data is also complicated by non-synchronous trading (Scholes and Williams 1977). These weaknesses have a significant impact on our testing, which I will discuss thoroughly.

In contrast, long term monthly returns do not assume that the stock price rapidly reflects new information. Rather, long term returns are supposed to reflect long-term expectations for a firm. In the real world, firm fundamentals change very slowly and returns over long horizons can be examined only using a long-term event window. However, Fama (1998) argued that the bad-model problem is less serious in event studies that focus on short return windows (several days) but becomes more serious as the return horizon grows.

Despite the various strengths and weaknesses of both short- and long-term data, I

believe that these data are by far the most acceptable parameters for examining the effect of an event. Event study also involves many biases, including biases related to data mining and smoothing data, but few data research methods can avoid biases completely. Minimizing subjectivity should be emphasized during the research process.

1.6.4 Abnormal Returns

To conduct an event study, I need to determine whether an "abnormal return" is triggered by the event. Brown and Warner (1985) defined abnormal return as "the difference between its actual ex post return and that which is predicted under the assumed return generating process". They suggested that there are three main methodologies to calculate abnormal returns using daily stock prices, including: 1) mean-adjusted returns; 2) market-adjusted returns; and 3) the OLS market model.

The mean-adjusted return assumes that the firm has constant systematic risk and that its efficient frontier is stationary, indicating that the firm's expected return is constant. The abnormal return is equal to the difference between the observed return R_i and the average return of a past estimated period. Although the mean-adjusted return model is one of the simplest models, its results are relatively reliable and accurate. Brown and Warner (1980, 1985) suggested that the constant-mean return model often yields results similar to those of a sophisticated model because the sophisticated model cannot significantly reduce the variance. In terms of market-adjusted return, Brown and Warner (1985) and Kothari and Warner (1997) assume that the expected return equals the market return. The market portfolio of risky assets is a linear combination of all securities. In addition, Brown and Warner (1980) claimed that the market-adjusted model assumes that each security has the same systematic risk as the entire market. In this method, market-wide movements are taken into account and each security's systematic risk is estimated relative to the market portfolio.

The market- and risk-adjusted model assumes that a different market model can generate expected return. The economic model is based on assumptions regarding investor behaviour. This method accounts for both market-wide factors and systematic risk. Commonly used models include the following: 1) the market model; 2) the capital asset pricing model; 3) the Fama-French three-factor model; and 4) arbitrage

pricing theory (APT). Stock indexes such as the S&P 500 and FTSE 100 are usually used as proxies for market portfolios, and I will discuss the choice of stock index later. Brown and Warner (1980, 1985) found that the market model can reduce the abnormal return variance because market variation can be decreased significantly with the market portfolio. The precise benefit depends on the R-square of the market model regression. The higher the R-square the greater the reduction in abnormal return variance. Other factor models, such as CAPM and APT, entail many assumptions and restrictions because these models are highly sensitive to many factors. Such factor models are also used to model the normal return and usually aim to reduce the abnormal return variance by adding more factors to explain the variation. Although there are many different models used to calculate expected returns, the core methodology is very similar. I use the market model as an example. First, use an ordinary least square model to regress the stock return over the period of interest and calculate α and β over the estimated periods. Then, calculate the market model expected return for the event period. Finally, I obtain the abnormal return by calculating the difference between the actual return in the event period and the market model expected return.

In previous research, both statistical and economic models are applied to calculate abnormal return, and the complex model is employed to increase explanatory power by reducing abnormal return variance. However, the reduction effect is generally very small and the complex model increases both data collection requirements and statistical restrictions and assumptions. Brown and Warner (1980) used a different methodology to calculate abnormal return. Specifically, they compared the different methodologies and concluded that the simple methodology is both well specified and relatively powerful under a wide variety of conditions and that in certain cases; an even simpler method performs well. MacKinlay (1997) confirmed that only limited gains are achieved through the use of multifactor models. Due to the marginal explanatory power of additional factors, the variance reduction is very small.

In conclusion, the long-term abnormal return variation can be much larger than expected. Researchers tend to use the constant-mean return model and the market model, which are both characterized by reasonable and sound assumptions. These models assume returns are normally distributed, independent, and identically

distributed. These models are empirically simple and based on robust assumptions, which facilitates the execution of the modelling process. Most importantly, these two models yield very dependable results, and I must acknowledge that modelling errors can be significantly reduced based on the assumptions made.

1.6.5 Methods of Measuring Abnormal Returns

Buchheimet al. (2001) summarized three metrics to measure daily and monthly abnormal returns: (1) average abnormal returns (AARs); (2) cumulative abnormal returns (CARs); and (3) buy-and-hold abnormal returns (BHARs).

Average abnormal returns (AARs) are obtained by:

$$AAR_{pt} = \frac{1}{Nt}\sum_{t=1}^{n} ARit \quad (1)$$

Where AAR_{pt} is the average abnormal return on a portfolio of *N* events over time *t.*

Cumulative abnormal returns (CARs) are an extension of the AAR equation:

$$CAR_t = \sum_{t=0}^{n} ARt \quad (2)$$

Where *CARt* is the cumulative abnormal return on a portfolio of *N* events over time period *t.*

Buy-and-hold abnormal returns (BHARs) measure the difference between the compounded actual return and the compounded predicted return:

$$BHAR_{it} = \prod_{t=0}^{T}[1 + Rit] - \prod_{t=0}^{T}[1 + Rmt] \quad (3)$$

Where *Rit* is the time *t* arithmetic return (including dividends) on security *i* and *Rmt* is the time *t* arithmetic return on the market-value weighted index (including dividends)

AAR and CAR are better used to capture short term returns. Fama (1998) noted that AARs in an event study do not realistically reflect the returns realized by actual investors. He suggests that the AAR or CAR approach is an average monthly return that does not accurately measure long-term investment return. Therefore, the long-term return is better captured by BHAR.

BHAR has become a popular estimation method in recent research. Buchheimet al. (2001) summarize past research and claim that the BHAR is frequently used in

modern event studies. However, the BHAR approach has several drawbacks. Fama (1997) suggested that the long-term BHAR compound model can lead to errors in the abnormal return significance test. Kothari and Warner (1997) found that when using the same data set, long-term BHARs are significantly right skewed but CARs are not, due to the compounding effect. Mitchell and Staford (1997) concluded that BHARs can create false impressions of the speed at which prices adjust to an event because the BHAR compounds returns, which can be misleading if there is no abnormal return in a particular period. Brav (1997) emphasized that no existing method can completely correct the return covariance. Lyon et al. (1997) developed several techniques for correcting the BHAR, but because the average monthly return method avoided the extreme skewness problem, the corrected results were no more reliable than AAR or CAR.

In conclusion, AAR and CAR better reflect short-term returns whereas BHAR better captures long-term returns and more accurately reflects the return realized by investors. All three methods yield acceptable statistical results. Because AAR and CAR are less skewed than BHAR and do not require compounding, they have fewer statistical problems relative to the BHAR.

1.6.6 Potential data problems

Virtually all research that involves data collection is afflicted by some form of data problem. In this case, there are several potential problems related to the use of daily and monthly return data in event study research, including the following: 1) non-normality of returns and abnormal returns; 2) bias in OLS estimates of market model parameters in the presence of non-synchronous trading; 3) estimation error of the variance used in hypothesis tests, especially with respect to autocorrelation; 4) the method employed to fill the missing data; 5) the choice of market proxies or market indexes; and 6) sample size.

The first problem is that daily return data may not follow a normal distribution and is often fat-tailed; therefore, the calculated abnormal return is also non-normal. In general, I prefer to assume a normal distribution. Moreover, the non-normality of the data size many cause numerous issues. Fama (1976) suggested that distributions of daily returns are fat-tailed compared with a normal distribution, and Brown and

Warner(1985) claimed that the daily stock return for an individual security exhibits substantial departures from normality that are not observed in monthly data. Although the central limit theorem (Billingsley 1979) helps the abnormal return converge to normality as the number of firms increases, the assumption of the central limit theorem and the assumption that abnormal returns must be independent and identically distributed based on finite variance distribution.

The second problem is non-synchronous trading, which refers to trading behaviours that do not occur simultaneously. Clearly, it is impossible that all shares would trade at the exact same time. Frequency is another concern. No two shares are traded with the exact same frequency. Scholes and Williams (1977) and Dimson (1979) found evidence that shares traded relatively infrequently usually have downward-biased estimates where as those traded relatively more frequently upward-biased estimates have. Biased estimates are thus also difficult to avoid. I could try to ignore outliers using the Winsorizing method, which will discuss later, to minimize the estimation error.

The third problem is variance estimation. To test for statistical significance, abnormal return variance is a necessary variable. Autocorrelation, cross-sectional dependence and variance are also highly important to both the specification and the usability of the statistical test. Due to the non-synchronous property of trading behaviour, daily abnormal returns can exhibit a significant autocorrelation pattern. The stationarity of daily variances is also problematic. Beaver (1968) provided evidence that the variance of stock returns increases in the days closely around certain events. For example, a acquirer's stock variance is very likely to increase around the merger announcement day; variance can also surge when a publicly listed company releases its annual report.

The fourth problem is data skewness, which refers to the fact that the distribution of abnormal stock returns is positively skewed. This problem may arise from a statistical test problem. The skewness bias may cause both positive bias and a downward-biased standard error. Barber and Lyon (1997) documented data skewness bias and suggested that as the sample size increases, the skewness of the sample mean may decrease. Thus, the larger the sample size, the smaller the skewness bias. Cowan and Sargeant

(2001) confirmed the relationship between sample size and skewness, suggesting that when sample size increases sufficiently, the distribution of the sample mean should resemble normality and the skewness bias should be smaller.

The fifth problem involves new listing, survivor and rebalancing biases, which relate to research on long-term abnormal returns. Changes in the firms included in data sets may impact the calculation of abnormal returns. The new listing bias means that companies newly listed during the research period are usually excluded and only existing companies are considered in the model. Survivorship bias refers to the observation that only surviving firms or stocks are considered in research. Kothari and Warner (1997) examined several aspects of these biases and concluded that sample size, long-horizon parameter shifts and the weighting of the market portfolio proxy affect both abnormal return measurement and variance.

The sixth problem is the choice of market index, which is the market portfolio directly related to the abnormal return result. Usually, researchers use the market index as a proxy. Brown and Warner (1985) suggested that a value-weighted index more accurately reflects the assumption of the market model. However, their study showed that the use of an equally weighted index is slightly more likely than a value-weighted index to pick up abnormal returns. Cowan and Sergeant (2001) determined that value-weighted portfolios yield the most promising test results in terms of avoiding biases and misspecification. However, Fama (1998) alleged that long-term post-event returns typically shrink significantly and often disappear when event firms are value weighted rather than equally weighted, especially for small stocks. In summary, the previous literature indicates that the choice of market index is controversial.

1.6.7 Testing AR for significance

Once I obtain the abnormal performance of each event window, I need to test whether the abnormal return exists. If M&A activity has an impact on firm value, then the abnormal return should exist. The null hypothesis is that the abnormal return is zero during the event window. The alternative hypothesis is that the abnormal return is significantly different than zero.

The t-statistics are computed using the following formula:

$$t = \frac{ARt}{\sigma(ARt/\sqrt{n})} \quad (4)$$

where σ is the cross-sectional sample standard deviation for the sample of n firms.

1.6.8 Winsorizing

Winsorizing is the transformation of statistics by limiting extreme values in the statistical data to reduce the effect of possibly spurious outliers. The test of significance is heavily influenced by outliers and sensitive to extreme high and low values. If the outliers are untreated, the test result will tend to be too high. In sum, outliers have a sizable impact on estimates.

Therefore, I can apply the winsorizing method to limit the lower and upper values using the1st, 2.5th and 5th percentiles as thresholds. Kokic and Smith (1999) attempted to derive an optimal two-sided Winsorization by simultaneously reducing the impact of both upper and lower extreme values such that the bias remains around zero and the variance is reduced as much as possible. The values above the thresholds are reduced, which can minimize the mean square error of the estimate.

1.7 Data and methodology

1.7.1 Data

The M&A data collected from Thomson One Banker may be categorized into three groups: 1) acquirer information (i.e., acquirer name, acquirer nation, acquirer listed exchange, acquirer ultimate parent company and acquirer DataStream code); 2) target information (i.e., target name, target nation and private/public status of the target); and 3) deal information (i.e., announcement date, date of effective completion/withdrawal, payment method, deal status, bid attitude and deal code). Data regarding the market indexes and the acquiring firms' financials were collected from Thomson DataStream and include three groups: 1) acquiring firm stock price; 2) acquiring firm financial data (including total assets, total equity, total liability, market capital, market-to-book value, price/earnings ratio and financial leverage); and 3) the acquiring firm's stock market index, which is used as a proxy for market return.

As mentioned previously, I classify Chinese M&As into three groups: Chinese

domestic mergers, in which a Chinese acquirer merges with a Chinese target; Chinese cross-border mergers, in which a Chinese acquirer merges with a foreign target; and foreign M&As in China, in which a foreign acquirer buys a Chinese target. The following criteria were used to search for M&A data related to China:1) the M&A occurred during the past 20 years; 2) the acquirer is a public company; 3) the acquirer is Chinese (for Chinese domestic mergers and Chinese overseas mergers) or foreign (for foreign M&As in China); 4) the target is Chinese (for Chinese domestic mergers and foreign M&As in China) or foreign (for Chinese overseas mergers); and 5) the value of the transaction exceeds 5 million USD. Although the literature typically uses a deal value of at least 10 million to ensure that the merger has enough power to impact acquirer return, I decreased this criterion to 5 million due to the relative lack of data for the Chinese market.

The time interval of the mergers is from 01/01/1991, when China began to establish its stock market, to 30/9/2011. I divided the M&A sample into three subgroups: foreign acquirer buys a Chinese target (225 transactions); Chinese acquirer buys a Chinese target (3461 transactions); and Chinese acquirer buys a foreign target (1435 transactions).

1.7.2 Methodology

As in the previous studies discussed above, I use short- and long-term abnormal returns to measure the post-announcement performance of the acquiring company.

I calculate the daily return of the acquirer as:

$$R_t = \ln\left(\frac{Pt}{Pt-1}\right) \quad (5)$$

where R_t refers to the daily normal return of stock i and P refers to the stock price on days t and t-1.

After I obtain the acquirer return (R_i) and market return (R_m), I can calculate the abnormal return of the acquirer in the defined event window as:

$$AR_t = R_i - R_m \quad (6)$$

Therefore, I obtain the short-term abnormal return as:

$CAR_t=\sum_{t=0}^{n} ARt$ （7）

I also obtain the long-term abnormal return as:

$BHAR_{it}= \prod_{t=0}^{T}[1 + Rit] - \prod_{t=0}^{T}[1 + Rmt]$ （8）

where R_{it} and R_{mt} are the arithmetic returns, including dividends, on security i and the Shanghai Stock Exchange (SSE) all-share value-weighted index, respectively, at time t.

A multivariate analysis is conducted to examine the factors that affect the short- and long-term performance of M&As. The dependent variable is the performance of the acquirer, and the independent variables are the factors that may affect M&A performance. I use multivariate regression as follows:

$$\begin{aligned} \textit{CARs or BHARs} = \textit{intercept} &+\beta_1\times Tobin\ Q\ ratio+\beta_2\times Market\ Capitaliztion+\beta_3\times Market\ to\ book\ value \\ &+\beta_4\times Market\ Value+\beta_5\times Financial\ Leverage+\beta_6\times Traililng\ 1\ year\ BHAR \\ &+\beta_7\times Trailing\ 1\ year\ Market\ Return+\beta_8\times Trailing\ 1\ year\ CAR \\ &+\beta_9\times Dummy\ of\ Conglomerate\ Mergers+\beta_{10}\times Dummy\ of\ Public\ Target \\ &+\beta_{11}\times Dummy\ of\ SOE\ Acquirer+\beta_{12}\times Dummy\ of\ Non-experience\ buyer \\ &+\beta_{13}\times Dummy\ of\ Final\ Complete\ Status+\beta_{14}\times Dummy\ of\ Cash\ payment \\ &+\beta_{15}\times Dummy\ of\ Stock\ payment \end{aligned}$$

（9）

The independent variables can be classified into three groups: 1) financial data related to the acquirer, including market-to-book value, size, Tobin's Q and financial leverage; 2) information related to the deal, including dummy variables for payment method (100% cash, 100% stock or mixed), status (completed or withdrawn), merger type (conglomerate or horizontal/vertical), target status (publicly listed or privately owned), and previous merger experience of the acquirer (no previous experience or previous experience); and 3) data related to the momentum effect, namely, trailing 1-year CAR, trailing 1-year BHAR and trailing 1-year market return.

For the robustness test, I also include deal size and region dummy as independent variable as Equation 10. In Chinese overseas merges, country dummy is the target country from; in foreign overseas mergers, country dummy is the acquirer country from.

$$\textit{CARs or BHARs} = \textit{intercept}+\beta_1\times Tobin\ Q\ ratio+\beta_2\times Market\ Capitaliztion+\beta_3\times Market\ to\ book\ value$$

$$+\beta_4 \times Market\ Value + \beta_5 \times Financial\ Leverage + \beta_6 \times Traililng\ 1\ year\ BHAR$$
$$+\beta_7 \times Trailing\ 1\ year\ Market\ Return + \beta_8 \times Trailing\ 1\ year\ CAR$$
$$+\beta_9 \times Dummy\ of\ Conglomerate\ Mergers + \beta_{10} \times Dummy\ of\ Public\ Target$$
$$+\beta_{11} \times Dummy\ of\ SOE\ Acquirer + \beta_{12} \times Dummy\ of\ Non-experience\ buyer$$
$$+\beta_{13} \times Dummy\ of\ Final\ Complete\ Status + \beta_{14} \times Dummy\ of\ Cash\ payment$$
$$+\beta_{15} \times Dummy\ of\ Stock\ payment + \beta_{16} \times Deal\ Value$$
$$+\beta_{17} \times Dummy\ of\ Asian + \beta_{18} \times Dummy\ of\ European$$
$$+\beta_{19} \times Dummy\ of\ American + \beta_{20} \times Dummy\ of\ Other\ Countries \quad (10)$$

CHAPTER 2 CHINESE OVERSEAS M&As

2.1 Descriptive Statistics

Cross-border mergers and acquisitions developed significantly in the 20th century, becoming a normal business approach, especially in developed economies. Hopkins (2002) suggested that 'cross-border mergers and acquisitions have become by far the single biggest means of integrating the world's economies'. In recent years, M&As have become more popular than green investment as method of foreign direct investment. From January 1991 to October 2010, there were 225 transactions in which Chinese listed companies bought foreign companies. Although the scale and number of M&As were much smaller in China than in other developed countries and only a small portion of foreign direct investment involved cross-border M&As, I can see great potential in China's market. Like most business statistics for China, a clear upward trend for M&A activity can be observed during these years. Overseas mergers were rare in the first few years of the 1990s but increased tremendously after 2000. The rapid increase in overseas mergers has been attributed to different factors, which I will discuss later. As Figure 1 shows, I can divide outbound Chinese M&As into four stages.

Initially, there was a seed stage from 1990 to 1996, after the Chinese government had implemented an open economic policy. The friendly economic policy encouraged a large number of firms to either establish new businesses or expand their existing businesses. Certain large corporations began to consider importing advanced technology from other countries. However, a lack of experience and knowledge made overseas purchases very difficult. Therefore, it is not surprising that few overseas mergers were conducted between 1990 and 1996. As shown in the above graph, I can find only two overseas transactions during the seed period.

Following the seed stage, foreign M&A activity increased. I describe 1997 to 2000 as the pioneer stage, during which a fast-developing Chinese economy drew attention from across the globe. China's improving economy was attributed not only to SOEs, which have always played a leading role, but also to many privately owned companies. If I consider currently large private companies in China, I see that a great number of

them experienced significant expansion during the late 1990s. In contrast, the performance of SOEs declined relative to their historical performance. For example, the banking system suffered from a significant bad debt percentage on its balance sheet. Specifically, more than 20% of bank debt was considered bad, which severely damaged the entire financial system. A total of six overseas mergers took place in the pioneer stage, and four of them were initiated by privately owned companies. It also warrants noting that one-half of these deals originated in Hong Kong. In the summer of 1997, China reclaimed its sovereignty over Hong Kong, which generated numerous business opportunities in Hong Kong and the mainland. Large Chinese corporations used this opportunity to enter Hong Kong's market.

The next stage started in 2001, when China officially acceded to the World Trade Organization. The Chinese government had conducted a multi-year effort to join this organization to stimulate trade between China and rest of the world. Since that time, China has become more globalized and communications between Chinese and foreign firms have increased in frequency. This strategic cooperation has increased the eagerness of both Chinese and Western companies to explore business opportunities. Certain large companies in China benefited from the globalized economy and became cash abundant. As they became richer, they became more ambitious towards the overseas market. These firms considered a merger with a mature foreign company to be one of the quickest methods for accessing foreign consumers and advanced technologies. From 2001 to 2005, most overseas transactions occurred between firms in China and those in neighbouring countries, such as Hong Kong, Macau and South Korea. Similar traditions and culture made these mergers much simpler. All of 28 overseas mergers, 14 involved companies from Hong Kong and Macau and 5 involved firms from South Korea and Indonesia. Compared to the relatively low level of merger activity in the 1990s, the 5-year period from 2001 to 2005 laid the perfect foundation for the next stage.

The fourth stage spanned the period from 2006 to 2011. China's economy continued its rapid development, with double-digit GDP growth in every year of this stage. Investment enthusiasm increased significantly in all industries. In particular, the real estate area reflected the popularity of the investment market. Hot money flowed rapidly into the Chinese market to capture the best investment opportunities. It

appeared that everyone was confident that China's economic miracle would continue for a long period of time. In addition, from a currency prospective, the RMB appreciated by more than 30% in this period creating a host of opportunities to go overseas. Firms could acquire foreign companies at lower prices. Furthermore, the necessity of purchasing a foreign firm had increased significantly for many domestic firms that urgently needed foreign resources. The financial crisis in 2008-2009 was somewhat good news for Chinese companies who sought overseas targets. For example, many U.S. companies suffered severely from the recession and were eventually sold at discounted prices. Chinese firms did not let these perfect opportunities pass them by, and many of them spent significant portions of their capital to bring these cheap firms under their corporate umbrellas. All these factors encouraged overseas merger activity. I call this 5-year period the boom stage because as many as 189 mergers—a six-fold increase over the previous stage—were completed. This was a huge leap in terms of the number of mergers.

Regarding target industries, Table 1 shows that the most popular industry among outbound M&As was the mining industry, which accounted for 12.89% of this sample group. The electrical equipment and components sector represented 11.56%, and business services accounted for 9.78%. The financial industry, which was dominated by commercial and investment banks, also played an important role in M&A activity. Chinese companies focused on these industries because of economic and regulatory factors. Specifically, regulators implemented a series of immensely favourable rules and policies in these sectors, which allowed many enterprises to implement M&A plans that were previously unfeasible. Along with the recent development of the Chinese economy, increasing demand for natural resources, such as crude oil, iron and other metals, has made the mining sector one of the most popular fields in foreign M&A activity. Ownership of a mining subsidiary was considered an important step in the global resource strategies of SOEs and cross-border enterprises. The information technology sector has also benefitted from the open economy. As the government encourages companies to export and expand internationally, Chinese acquirers endeavour to obtain new and advanced technology along with new market opportunities to further expand their existing businesses. The importance of technology cannot be over emphasized. Merger activity in the financial industry reached its peak due to industry deregulation. In particular, the conglomerate form

enabled financial holding companies to diversify their business risks globally, which strongly motivated financial institution mergers.

Regarding acquirer industries, Table 2 shows that one-half of the top 10 acquirer industries are also top target industries, including business services; depository institutions; holding and other investment offices; oil and gas extraction; and industrial machinery and equipment. The data indicate that most mergers are vertical or horizontal because foreign acquirers prefer to purchase targets in familiar industries when entering new geographic markets. The top 10 acquirer industries are mainly from three groups: the resource and energy sectors, including primary metal industries, metal mining, and oil and gas extractions; industries related to real estate, due to the real estate bubble in China; and financial industries, due to the deregulation of the Chinese financial market.

In terms of countries and regions, first, despite the fact that Chinese officials include Taiwan, Hong Kong and Macau within the boundaries of China, I cannot ignore that these two regions have completely different laws, policies and business environments from those of mainland China. The Chinese government has referenced “one country, two forms”, which somewhat separates these areas from China with respect to certain important business and political factors. For this reason, past researchers treat these three regions as foreign countries in most analyses as I applied. Table 3 shows that most outbound M&As originate in Hong Kong, which accounted for approximately 27.11% of all outbound M&As. Due to closer economic relationships and cultural similarities, Chinese investors prefer to invest and expand their businesses in Hong Kong, Singapore, Indonesia, Macau, Mongolia and South Korea, all of which are among the top ten most popular targets. Because they are all neighbouring countries of China, they may have similar traditions; in addition, communication with firms in these countries is easier. The second largest target country was the United States, which accounted for 15.56% of all outbound M&As. Because countries such as the United States, United Kingdom, France, and Japan are developed and have highly mature markets and the most advanced technologies in the world, acquirers in China have targeted firms in these countries to obtain strong technological support and well-educated human resources. The third largest target country was Australia. Nearly all 17 Australian acquisitions were driven by the same incentive, that is, the desire of

Chinese firms to control some portion of Australia's natural resources, which include gold, gas, iron and other nonferrous metals. Australia is regarded as a resource-abundant nation in which a small population shares a large volume of natural resources. This situation motivates many foreign buyers, especially Chinese companies, to seek M&A opportunities in Australia. Another interesting observation is that a number of Chinese firms have established subsidiaries in small regions, such as the British Virgin Islands and Cayman Islands. Tax benefits are the only purpose served by these strategies. In particular, heavily taxed businesses likes to purchase equity from existing shareholders to acquire control of firms in tax friendly environments, which leads to a significant number of M&As.

Regarding payment method, cash remains the most popular form of payment. Among a total of 225 overseas transactions, 102 either failed or were incomplete. The remaining 123 deals were dominated by cash payments. Specifically, 80 deals (65%) were completed in cash whereas only 19 (15.5%) were paid using stock. Additionally, there were 24 (19.5%) transactions using mixed payments of both cash and equity. The payment method distribution is consistent with that of other countries, where a majority of acquirers also prefer to use cash rather than other means to pay for transactions, which shows great confidence on the part of the acquirers.

Because I chose to define the M&A announcement as the trigger event, I also analysed post-announcement status. I believe that this trigger event is a vital indicator of M&A activity. The ultimate status of M&As announced to the market might have a significant impact on our research. Our data show that following 225 announcements of overseas mergers, 134 deals (59.6%) were reported as completed, 74 deals (32.9%) were reported as pending, and 13 deals (5.8%) were determined to have been withdrawn. In addition, 3 deals (1.3%) were reported as intended and the status of 1 deal was unknown. These data show that only a little over one-half of the announced transactions were ultimately successful, whereas a large portion of announced deals were postponed or cancelled.

Regarding the percentage of target stock owned by the acquirer post-merger, we follow GAAP and IFRS classification and consider a shareholder to control a firm if it owns more than one-half of the total shares. Ownership of between 20 and 50 percent

of shares is considered a “significant influence”, whereas shareholders with less than 20 percent of a target’s stock have only a financial investment. The different classifications may result in the use of different accounting methods to consolidate acquirers’ financial reports, which could cause financial reporting to differ significantly across acquirers. Of 225 total overseas deals, ownership shares are unknown for 95 deals. Among the remaining 130 deals, buyers owned a greater than 50 percent share in 100 deals (76.9%), between 20 and 50 percent in 13 deals (10%), and less than 20 percent in 30 deals (23.1%). I can conclude that most buyers want to take a dominate position in the target firm and only a small portion of them want to treat the mergers as mere financial investments. As the differences between GAAP and IFRS decreases further in the future, the financial reporting process will converge towards a similar path, which in turn will increase the accuracy of data regarding post-merger shareholding ratios. Regardless, it is widely believed that the trend towards the acquisition of control in the target will continue to grow.

Regarding acquirer ownership, 123 deals (54.7%) were initiated by privately owned acquirers and 102 deals (45.3%) were initiated by SOE acquirers. Consistent with the other types of mergers, privately owned companies and SOEs have similar market shares. Although giant SOEs have engaged in many overseas transactions, it has been predicted that privately owned buyers will participate in an increasing number of overseas M&As.

In conclusion, the popularity of cross-border mergers has increased rapidly in recent years. The most popular target companies are located primarily in neighbouring countries of China, developed Western economies and resource-abundant nations. The most active industries are the mining and high technology areas, as well as finance-related fields. Cash is the primary (65%) payment method. The data show that 59.6% of announced deals were completed after the merger announcement and that most (76.9%) acquirers seek control of the target firm as opposed to mere influence. More than one-half of the deals were transacted by privately owned buyers, although SOEs account for nearly one-half of the market share. As more Chinese firms gain business power, more cross-border mergers will be conducted and more industries will be involved.

2.2 Short- and long-term abnormal returns analysis

2.2.1 Short-term Analysis

For the short-term analysis, I calculated each acquirer's abnormal return around (40 days) the event and obtained the cumulative abnormal return. The CAR, average CAR and AAR are illustrated in Figure 2. There are several findings regarding short-term abnormal returns. First, abnormal returns before the deal is announced are positive but become negative following the announcement day. Second, cumulative abnormal returns before the announcement day are significant. Third, abnormal returns can be influenced by payment method, acquirer ownership, previous merger experience, and target status and merger type.

Pre- and post-announcement abnormal returns are different. The average abnormal return is mainly positive from -15 day to 1 day. With the exception of the -10 day average abnormal return, which is negative, average abnormal returns during this16-day period are positive, ranging from 0.09% to 0.83%. After the announcement day, from 2 to 20 days, most abnormal returns are negative, ranging from -0.01% to -1.52%. The traditional explanation for the decline in stock price after a merger announcement is that although M&A activity will greatly benefit the target, most acquirers overpay; therefore the market will instantly react to this news as negative information, which cause the stock price to decline. An interesting phenomenon in the Chinese stock market is that the stock price does not immediately decrease following the merger announcement; rather, the price increases before the announcement and continues to increase after the merger is announced before it begins to decline. This difference may be caused by differences in the manner in which mergers are perceived in different cultures. Specifically, investors in developed markets believe that mergers will be detrimental to shareholders, whereas investors in developing countries may view M&A activity as an indicator that the acquirer has a good opportunity to expand its business, which suggests the potential for increased profitability in the future.

The cumulative abnormal returns are significantly positive during the -20 to 1 day time interval. As Table 4 shows, the greatest CAR achieved by an investor that holds the stock 20 days prior to the announcement is 3.79%. Even after the deal information is released, the instant buy-and-sell transaction on the following day can obtain a

significant 1.02% return. However, after the announcement day, the CAR will decrease to an insignificant level. The result is same as that for abnormal returns: although the information has not yet been publicly released, it can be reported by newspapers, analysts, etc., and the market initially reacts to the information as good news. Investors buy more of the company's stock and even overreact to the news. However, after the deal is released by the exchange, the stock price will revert back to its normal level. These results are consistent with Boateng et al. (2008). They used data from 27 Chinese cross-border acquisitions between 2000 and 2005 to examine the motivation and performance of Chinese overseas mergers and found that buyers have significant and positive short-term abnormal returns.

I also classify the mergers according to different criteria and find that short-term abnormal returns differ across groups, as Table 5 illustrates:

Different payment methods yield different short-term abnormal returns. Specifically, cash payments generate the highest returns—2.17% for the -1 to +1 time interval—mixed payments have a median return of 1.05%, and stock payments yield the lowest return, 0.09%. Analysis of other time intervals (0 to 1 days, -1 to 0 days -5 to 0 days, -7 to 0 days and -2 to 2 days) yield similar results. These results are consistent with classical theory; specifically, cash payments indicate that the acquirer is more confident about the transaction and thus is willing to pay cash, whereas an acquirer that is less certain about the benefits of a merger tends to pay with stock to share the risk with the target.

Acquirer ownership also affects abnormal return. Privately owned firms experience ambiguous short-term abnormal returns. The results for different time intervals differ slightly, but ownership does not greatly influence short-term returns.

The announcement by an acquirer of its first merger will result in a higher abnormal return compared with an announcement by an experienced acquirer. Generally speaking, an experienced buyer will perform better than a new buyer, but the results are contradictory. This phenomenon does not mean that new buyers outperform experienced buyers; rather, it may occur because a first-time merger announcement will stimulate more investor overreaction than an announcement from a frequent

buyer.

The target status also affects short-term abnormal returns. In the -1 to 1 day interval, public targets yield a return of -0.31% whereas private targets generate a 1.91% return. The results for other time intervals are similar; most acquisitions of public targets earn negative abnormal returns. This result occurs because publicly listed targets have relatively high liquidity and thus the business risk is lower than that for acquisitions of private companies; therefore the deal price premium will also be higher for public targets. Investors believe that the acquirer may overpay and that its future profitability will decrease.

The results for different merger types are ambiguous in the short run, although both conglomerate mergers and vertical/horizontal mergers yield significant positive abnormal returns before the announcement date. The abnormal return for vertical and horizontal mergers is slightly higher than that for conglomerate mergers in the -5 to 0 and -10 to 0 day time intervals.

The final status of the merger also affects the short-term abnormal return. Uncompleted deals generate higher returns than completed deals. This result indicates two things about investors. First, investors consider Chinese overseas mergers to be bad news for the acquirer. This signal differs from that of domestic mergers due to the numerous previous unsuccessful overseas mergers. Second, the short-term investor has some prediction power regarding the final merger status. If investors expect the merger to ultimately succeed, the short-term abnormal return is usually higher.

Certain target industries generate significantly higher short-term abnormal returns relative to other industries. I analysed the top 10 industries separately and found that depository institutions, oil and gas extraction, commercial machinery, and computer industries experience higher than average positive abnormal returns.

2.2.2 Long-term Analysis

For the long-term abnormal returns analysis, I calculate yearly buy-and-hold abnormal returns (BHAR) using monthly price data and the market index. Table 5 shows that although the acquirer earns an average annual positive abnormal return of 3.09% prior

to the merger announcement, it incurs a significant loss in the first year following the merger announcement (-15.5% with a 99% confidence level) and losses of -4.53% and -10.86% in the second and third years, respectively. These results are consistent with those of previous studies; most acquirers suffer post-merger losses, and acquirers in Chinese outbound cross-border mergers are no different. This finding echoes that of Feng and Wu (2001), who used accounting data and factor analysis to formulate an overall evaluation function of corporate performance. They found no significant change in firm performance in the first year after the M&A but determined that performance improves in the second year before declining again in the third year. Zhang (2003) applied the event study method to analyse the M&As of Chinese publicly listed companies and found that although M&As add value to target companies, they have negative effects on buyers' income and financial performance.

Due to the cumulative effect, payment method, acquirer ownership, previous merger experience, target status, and merger type yield significantly different long-term abnormal returns.

Payment method has a larger impact on long-term abnormal returns than on short-run abnormal returns. Cash payments generate the smallest loss (-4.41%) in the first year after the merger, mixed payments result in a loss of -10.79%, and stock payments result in the greatest loss(-88.13%). Note that only 19 transactions in our sample were paid in stock, which indicates that the sample is too small and may result in some bias. The result may indicate that the more uncertain the acquirer, the more likely stock will be used to pay for the deal. Loughran and Vijh (1997) found that on average, in the five-year period following an acquisition, firms that completed stock mergers have significant negative excess returns whereas cash tender offers earned tremendous positive excess returns.

Acquirer ownership results differ between the long and short runs. In the short run, SOE firms yield lower abnormal returns than privately owned acquirers. However, in the long run, SOE firms take a small loss of -1.47% in the first year compared with a loss of -27.34% for privately owned acquirers. This result may occur because SOE firms have more bargaining power relative to the target and government policy may benefit SOE buyers.

The previous experience of the acquirer also affects long-term returns differently. In the short run, a first-time acquirer announcement stimulates more investor overreaction than an announcement by a frequent acquirer, but in the long run, the experienced buyer demonstrates its M&A experience and ability to create synergies. The experienced acquirer yields smaller negative abnormal returns (-8.29%) than the first-time acquirer (-18.95%).

The target listing status also has different effects on short- and long-term abnormal returns. If the target is a public firm, the buyer experiences positive returns in subsequent years (-0.58%, 53.57% and 33.64%), in contrast to private target firms (-20.59%, -24.81% and -25.52%). In the short run, the acquirer usually overpays for a public target due to the market liquidity premium and lower business risk. However, in the long run, public firms have more stable businesses and strong corporate governance, which reduce future risk.

Merger type also affects long-term returns. Generally speaking, conglomerate mergers perform worse than vertical/horizontal mergers because they are motivated by different factors. Specifically, vertical and horizontal mergers usually aim to increase the acquirer value chain or to increase market share. In addition, the acquirer in a vertical/horizontal merger has experience related to the target industry, which facilitates the achievement of synergies post-merger. In contrast, the objective of a conglomerate merger is to diversify business risk by acquiring a target in a new industry; the target industry might be completely unfamiliar to the acquirer, which can lead to significant losses.

The final status of a merger refers to whether the deal ultimately succeeds or fails, and the results show that the impact of a successful deal on long-term abnormal return is greater than that of a failed deal because the acquirer in a successful deal may overpay for the target and suffer from the loss. One notable phenomenon is that even acquirers that report failed mergers experience negative long-term abnormal returns (-14.95%) that are nearly equal to the average acquirer M&A loss after 1 year. One possible reason for this phenomenon is that a failed merger may lower investor expectations, resulting in a decline in stock price. Another possible explanation is that the failed acquirer may seek and ultimately complete a different merger, which also yields a

higher loss.

Different industries generate different long-term abnormal returns. Certain industries have unusually high negative abnormal returns compared with other industries. For example, mergers in electrical equipment and component industries generate returns of -51%, -55.17% and -60.74% in the first three years following the merger, and mergers in the business services industries experience returns of -20.4%, -66.08% and -75.66% in the first three years. Differences in abnormal returns among industries may due to differences in industry business cycles and market conditions.

2.3 Multivariate Analysis

2.3.1 Short-term Multivariate Analysis

For short-term multivariate analysis, I regress the different time interval CAR with the independent variables. The time interval is between -10 to 10 days, as shown in Table 6. Although the CARs in these periods are significant, the factor t tests are nearly all insignificant. These results are inconsistent with the literature discussed previously. The control variables verified in previous studies, including payment method, previous merger experience and Tobin's Q ratios, among others, are insignificant in our research. The main reason for this inconsistency is the different data set used in this study. Whereas previous studies mainly use M&A data from the US and UK, our study uses Chinese merger data. Due to the insignificance of short-term returns, I winsorize the variables to eliminate the (5, 95) and (10, 90) extreme values. However, the results remain insignificant, which may imply that these factors are unrelated to short-term abnormal returns in Chinese overseas mergers.

Therefore, I compare our results with those of other researchers who also used Chinese merger data. Black et al. (2013) conducted a multivariate analysis using Chinese merger data from the past 20 years. Their study focused on whether differences in M&A factors between China and the US affect short-term performance (5 days CAR), and their data included acquisitions by Chinese firms of both foreign and domestic targets. The results were consistent with those of our study. In particular, they found that in the US market, payment method, merger type, acquirer ownership and market value are all significant factors, whereas in the Chinese market, the only

factor with a 95% level of significance was the stock payment method.

I find that the following factors are irrelevant to short-term acquirer performance in the Chinese outbound M&A market: financial ratios, market size, market-to-book value, financial leverage, previous market returns, previous acquirer abnormal returns, past merger experience, acquirer ownership, target ownership and merger type. Short-term performance reflects investors' expectations regarding the acquirer's future performance rather than actual acquirer performance. The insignificance of these factors with respect to short-term returns does not mean that these factors are irrelevant to the firm's future performance. Rather, the more reasonable explanation is that Chinese investors are not sensitive to these factors. Most likely, Chinese investors view the merger announcement as good news for the acquirer because a merger can enhance the acquirer's future earning ability; therefore, Chinese investors are willing to pay more to buy the stock in the acquirer, and the over-demand and increased earnings expectations are reflected in the stock price. Consequently, short-term abnormal returns are significant and sustained from 15 days before the announcement to 1 day after the announcement.

2.3.2 Long-term Multivariate Analysis

For long-term performance analysis, I take 1-year, 2-year and 3-year BHARs as the independent variable to perform the regression with different factors. Compared with short-term performance, which reflects investor expectations, long-term abnormal returns are more representative of the acquirer's inherent value and fundamental earning expectations. The results are presented in Table 7.

Tobin's Q, market capitalization, market-to-book value and market value are not significant, indicating that they are irrelevant to long-term post-merger performance. Financial leverage has a negative relationship with long-term acquirer performance. When an acquirer elects to pay for a target with cash or a mixed payment, it usually borrows money from an external source. Firm working capital will decrease and fixed investment will increase. If the corporation borrows too much money, it faces the risk of bankruptcy. In addition, according to static trade-off theory of capital structure, increased borrowing by the acquirer will increase its overall cost of financing. In our study, financial leverage has a significant negative impact on the 1-year, 2-year and

3-year BHARs. This may explain why acquirers generate negative long-term post-merger returns. Although acquirers achieve synergies post-merger, their cost of borrowing money increases. If the synergy value is less than the financial cost, the acquirer will have a negative return in the long run. Agyei-Boapeah (2015) conducted a broad review of the relationship between M&As and financial leverage and found that cross-border mergers have a negative impact on the financial leverage of acquiring firms.

Target status is a significant factor in the acquirer's long-term performance. Generally speaking, the acquisition of a publicly listed firm has a positive impact on the acquirer's long-term abnormal return relative to the acquisition of a privately owned firm. The reason why a public target generates more positive synergies than a private target may be related to the fundamental character of publicly listed firms. Usually, public firms listed on main exchanges(such as the New York Stock Exchange, London Exchange or Hong Kong Stock Exchange) are mature firms with mature business models and established customers and markets; in contrast, publicly listed firms on NASDAQ and other OTC exchanges are typically growth-stage firms, which have high growth potential and relatively certain market potential. The price of a publicly listed firm is recognized by the market, and the corporate governance and accounting transparency is higher than that of a private firm. The acquirer of a publicly listed target may pay a higher price due to the liquidity premium, but it is easier to generate synergy value with a well-governed firm characterized by a mature business model and established market than with a less stable private firm in the pioneer stage.

The use of the stock payment method is significantly negatively related to long-term return. The results are controversy compare to the previous studies. Fuller, Netter, and Stegemoller (2002) have reported superior performance for stock acquisitions relative to cash acquisitions. Guo and Petmezas (2012) researched the UK market and concluded that overvalued acquirers who use equity to finance mergers are able to create value by cushioning the collapse of its stock price through the acquisition of the target firm's assets. In the long run, a merger financed by equity is likely to outperform one financed by cash. M&As can be financed either with cash or through an exchange of stock with the target firm. The selected payment method reflects the confidence of both parties regarding the ultimate results of the merger. If

the acquirer is confident that the merger will create value, it will prefer to pay cash, whereas an acquirer that is uncertain about the merger benefits will prefer the stock payment method. An acquirer also might choose the stock payment method if its stock is overvalued, which allows the acquirer to use expensive stock to buy cheap assets. The stock payment for the Chinese overseas mergers indicated the long term negative return the results is inconsistent with the developed countries.

I also tested the momentum effect on M&A acquisitions and found that the trailing 1-year CAR and trailing 1-year BHAR are significantly related to the acquirer's long term performance. However the effects are ambiguous, the trailing 1-year CAR shows a negative effect and trailing 1-year BHAR shows a positive results. The results are contrary with the research on developed country. Rosen (2006) examined the effects of mergers on bidding firms' stock prices and found that merger momentum exists. He suggested that bidders' stock prices are more likely to increase after a merger announcement if other recent mergers have been well-received or the overall stock market is performing well. And the results are also different with other researcher done in China. Zhou et al. (2012) found a positive relationship between the past 12-month market index return and the announcement returns for all periods. It shows that investors evaluate merger deals according to recent aggregate market performance. The differences may due to they take both Chinese overseas and domestic mergers deals together and different sample criterion. However, there is a long-term reversal of this trend. Although reasons for the momentum effect vary, the most common explanation for the momentum effect is that investors are irrational and tend to overact to certain events (Barberis et al., 1998).In our study, the momentum effect exists in long-term performance but the impact are uncertain.. This result is interesting and may warrant further study.

2.4 Robustness

To ensure the robustness of the results, I calculated the short- and long-term returns for different time intervals. For short-term CARs, I calculated returns twenty days before and after the announcement. For long-term BHARs I calculated annual post-merger returns over a three-year window. In addition, I ran the t test and multivariate regression with different time windows.

As Table 4 shows, the results of the tests on short-term CARs indicate that the cumulative abnormal return before the announcement date is significantly positive in the -20 to +1 day interval. However, after the announcement date, a different time window shows an insignificant abnormal return.

For the multivariate regression, I also consider the regional dummies and deal value in the robustness test. I take the regional dummies (including Asian dummies, European dummies, American dummies) and the deal value as the independent variables regression with both short and long term abnormal returns. Only the Chinese overseas mergers in (-5, +5) days short run regression are significant at 90%. The increasing of these two independent variables do not increase the explanation power (adjusted R square) of the model.

As Table 5 illustrates, I also calculate the CAR and BHAR separately for groups created based on merger characteristics, industry, etc. Certain factors (for example, cash payment, privately owned acquirers, conglomerate mergers, and final status) are significant in nearly all short-term time intervals. Use of the stock payment method, a private target, and a target in the business services or electrical equipment and components industry has a significant negative impact in all three post-merger years.

In the multivariate analysis, I found that all independent variables are insignificant in different time intervals. I also winsorize the data to eliminate the (5, 95) and (10, 90) extreme values. However, the result remains insignificant. This may imply that these factors are unrelated to short-term abnormal returns on Chinese overseas mergers. In the long run, the three-year BHAR is used as a dependent variable to regress the independent variables, and the results show that certain factors, such as leverage, momentum factors and the stock payment method, significantly influence abnormal returns for different time intervals.

2.5 Conclusion

Thus far in this project, I have focused on China's outbound cross-border M&As, considered data on M&A performance over the past twenty years, calculated acquirers'

short-term and long-term abnormal returns after the merger announcement, and compared the abnormal returns using different criteria. Then, I used multivariate analysis to explore the factors that affect post-merger performance. Through this research, I developed a clear idea of how China's outbound M&A activity has progressed over the years. The reasons for the rapid growth in cross-border M&As are complicated but rational. A combination of factors incentivized more Chinese firms to search for target firms abroad.

First, I provided an overview of outbound overseas M&A activities in China. To summarize, I found that during the past twenty years, Chinese firms rapidly entered the foreign M&A market due to China's open economic policy and economic boom. Chinese firms were not only capital abundant but also capable of competing with foreign companies. Overall, the progress of outbound M&A activity can be divided into four phases: seed stage, pioneer stage, growth stage and boom stage. Each stage was a significant extension from the previous one. Our research shows that the most popular industries for overseas M&As were mining- and resource-related areas, the high-tech industry and the finance industry. These results indicate that the primary motivations for Chinese acquirers were to obtain access to foreign resources, acquire advanced technology, and expand their market shares overseas. The most popular countries or regions for Chinese buyers were mainly neighbouring countries, such as Hong Kong, Macau, and South Korea. Other developed countries, including the United States and Japan, were also popular because of their advanced technology and manufacturing techniques, and resource-abundant countries, such as Australia, were also major targets of Chinese firms because no emerging economy can achieve further growth without sufficient natural resources. Cash was the predominant payment method. Most announced deals were successfully completed. The majority of acquirers aimed to control the target, as opposed to being mere shareholders.

Second, I analysed acquirer performance from both short- and long-term perspectives. In the short run, acquirers have significant abnormal returns from 15 days before the announcement to 1 day after announcements. I also compared returns based on different criteria and found the following: buyers that made cash payments usually yield higher returns than buyers using other payment methods; privately owned acquirers generally earn higher returns than SOE acquirers; and conglomerate mergers

generate higher returns than vertical and horizontal mergers. In the long run, acquirers experience significant negative post-merger returns; the average return in the first post-merger year was -15.5%. Acquirers that paid cash lost slightly less than buyers paying with stocks; SOE acquirers lost less than privately owned firms; and experienced acquirers suffered lower negative returns than first-time acquirers. In addition, acquirers of public companies generally lost less than acquirers of private companies, and vertical/horizontal mergers lost less than conglomerate mergers. These results are generally consistent with the classical literature, which has shown that although acquirers yield short-term abnormal returns immediately following the merger announcement, their long-term corporate performance tends to exhibit a decreasing trend.

Third, multivariate regression analysis was applied to explore factors that affect acquirer performance. In the short run, I found that no studied factor significantly affects short-term abnormal returns, which contradicts M&A studies in the United States and United Kingdom. One possible reason for this contradiction is that short-term abnormal returns mainly reflect investors' short-term expectations regarding the acquirer' future earning potential rather than the acquirer'' actual long-term performance. Investors in China are less sensitive than those in the United States and United Kingdom in this regard. In general, Chinese investors view merger announcements as good news, which usually leads to excess demand for the acquirer's stock and thus to significant short-term abnormal returns. However, in the long run, Tobin's Q, cash payment, and target listing status (i.e., publicly listed targets) usually have positive relationships with acquirer performance. Conversely, the financial leverage of the acquirer has a negative relationship with acquirer performance. Merger momentum effects do exist: trailing one-year short-term and long-term performance each has a significant relationship with future long-term performance.

Although the rapid progress of Chinese outbound M&As was exciting, I must recognize that China still has a long way to go before becoming the next fully developed economy. Market reform and economic restructuring will surely face additional obstacles and difficulties. Historically, Western countries experienced long development periods during which contemporary business models were established

and applied. China is fortunate that it can learn from the experiences of other countries. However, if Chinese firms cannot adapt Western business ideas to the unique environment of the Chinese domestic market, further difficulties will be encountered during the development phrase .For overseas mergers, it is reasonable that foreign firms will seek superior and more highly qualified buyers, which means that Chinese firms will not be able to participate in mergers based only on their sufficient capital.

FIGURE 1: The Deals of Chinese Public Company Outbound Overseas Mergers

This Figure shows yearly data of the Chinese overseas M&As from January 1991 to October 2010. The sample contains all the public listed acquires in China Shanghai Stock Exchange and Shenzhen Stock Exchange mergers overseas target which deal value higher than 5 million. The total sample size is 225 deals. These data collect from Thomson One Banker.

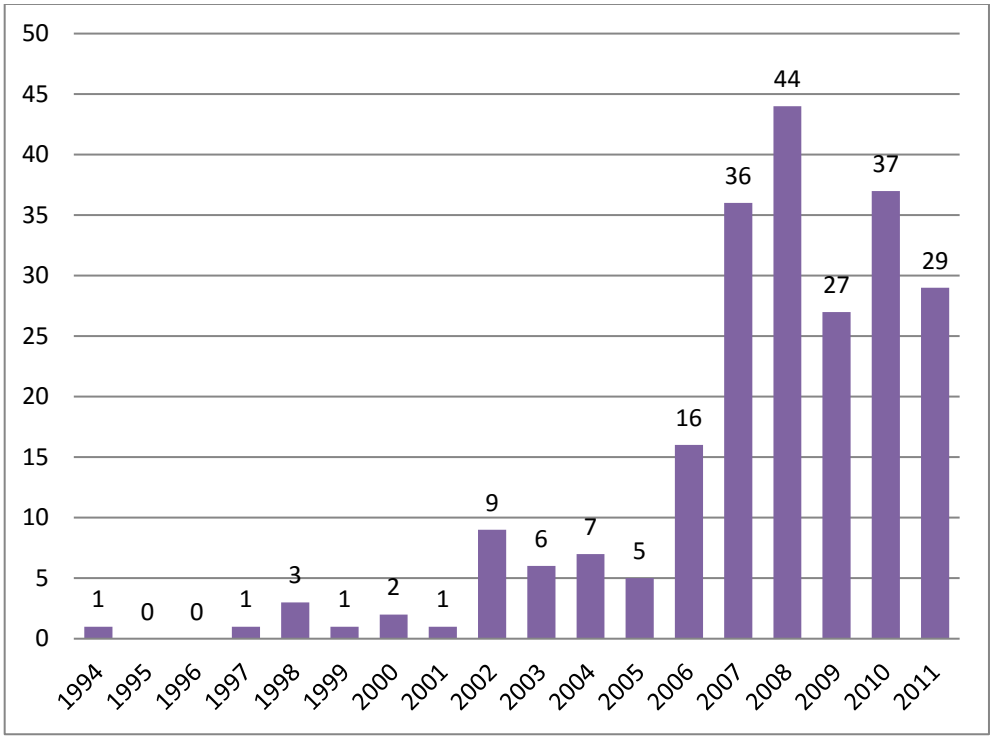


TABLE 1: The Chinese Outbound M&As' Target by Industry

This table presents the statistics data of the Chinese outbound M&As target industries. There are totally 225 deals. In the table below illustrate the top 10 industries by number of cases and percentage. The industries are classified by the Standard Industrial Classification (SIC) codes.

No.	SCI code	Industry Sector	No.of Cases	%
1	1000	Metal Mining	29	12.89%
2	3600	Electrical Equipment and Components	26	11.56%
3	7300	Business Services	22	9.78%
4	6700	Holding & Other Investment Offices	19	8.44%
5	6000	Depository Institutions	17	7.56%
6	1300	Oil and Gas Extraction	10	4.44%
6	3500	Industrial and Commercial Machinery and Computer Equip	10	4.44%
8	1200	Coal/Lignite Mining	6	2.67%
8	2000	Food and Kindred Products	6	2.67%
8	3800	Measurement Analyzing, Control Instrument and Related Prod.	6	2.67%
8	6200	Security & Commodity Brokers, Dealers, Exchanges & Services	6	2.67%
		Others	68	30.22%
Total			225	100.00%

TABLE 2: The Chinese Outbound M&As' Acquirer by Industry

This table presents the statistics data of the Chinese outbound M&As acquirer industries. There are totally 225 deals. In the table below illustrate the top 10 industries by number of cases and percentage. The industries are classified by the Standard Industrial Classification (SIC) codes.

No.	SCI code	Industry Sector	No. of Cases	Percentage
1	7300	Business Service	26	11.56%
2	3600	Electronic and Other Electric Equipment	20	8.89%
3	3300	Primary Metal Industries	16	7.11%
4	6000	Depository Institutions	16	7.11%
5	2800	Chemicals and Allied Products	15	6.67%
5	6700	Holding and Other investment offices	15	6.67%
7	1000	Metal Mining	12	5.33%
8	1300	Oil and Gas Extraction	9	4.00%
9	3500	Industrial Machinery and Equipment	8	3.56%
9	6500	Real Estate	8	3.56%
		Others	145	64.44%
Total			225	100.00%

TABLE 3: The Chinese Outbound M&As by Country/Region

This table presents the statistics data of the Chinese outbound M&As target countries and areas. There are totally 225 deals. In the table below illustrate the top 10 target countries and areas by number of cases and percentage. Although Taiwan, Hong Kong and Macau belong to China, due to the different politic and economic policy, these areas' mergers are considering as the foreign areas.

No.	Courtney/Region	No.of Cases	Percentage
1	Hong Kong	61	27.11%
2	United States	35	15.56%
3	Australia	17	7.56%
4	Singapore	15	6.67%
5	Canada	12	5.33%
6	Netherlands	7	3.11%
7	British Virgin	6	2.67%
7	Japan	6	2.67%
9	France	5	2.22%
10	Indonesia	4	1.78%
10	Macau	4	1.78%
10	Mongolia	4	1.78%
10	South Korea	4	1.78%
10	United Kingdom	4	1.78%
	Others	41	18.22%
Total		225	100.00%

FIGURE 2: The average CAR and AAR of Chinese Outbound M&As

This figure shows the -20 days to + 20 days average abnormal return (AAR), cumulative average abnormal return (CAR) and average CAR of Chinese oversea M&As. The abnormal return is calculated by ARt= Ri-Rm, the cumulative average abnormal return is calculated by CARt=$\sum_{t=0}^{n}$ ARt.

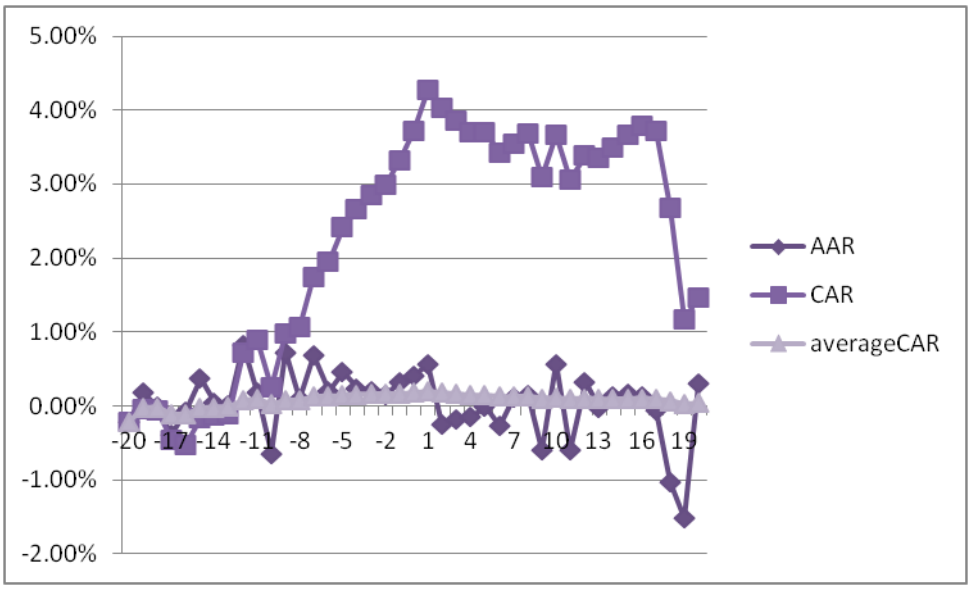


TABLE 4: The T-test of Chinese Outbound M&As CAR

This table contains the t-test of Chinese overseas M&As cumulative short run abnormal return. The time interval of the sample is -20 to +20 days around the announce date. The t values calculate as: $t = \frac{ARt}{\sigma(ARt/\sqrt{n})}$

Time interval	Obs	Mean	Std.Err.	Std.Dev.	T-test
(0,1)	212	0.0102	0.0050	0.0723	2.0536**
(0,3)	212	0.0057	0.0072	0.1055	0.7805
(0,5)	212	0.0040	0.0083	0.1203	0.4827
(0,7)	212	0.0023	0.0089	0.1292	0.2615
(0,10)	211	0.0034	0.0102	0.1475	0.3346
(0,20)	210	-0.0201	0.0205	0.2978	-0.9767
(-1,0)	212	0.0077	0.0039	0.0573	1.9564*
(-3,0)	212	0.0113	0.0063	0.0916	1.7979*
(-5,0)	212	0.0187	0.0068	0.0988	2.763**
(-7,0)	211	0.0264	0.0112	0.1633	2.3505**
(-10,0)	211	0.0283	0.0120	0.1747	2.3523**
(-20,0)	210	0.0379	0.0159	0.2310	2.3762**
(-1,1)	212	0.0136	0.0059	0.0865	2.2948**
(-3,3)	212	0.0127	0.0088	0.1284	1.442
(-5,5)	212	0.0185	0.0107	0.1562	1.7231*
(-7,7)	211	0.0243	0.0147	0.2142	1.646
(-10,10)	210	0.0272	0.0161	0.2331	1.6938*
(-20,20)	208	0.0140	0.0232	0.3342	0.6052

TABLE 5: The Comparison of Chinese Outbound M&As CAR and BHAR

This table illustrate the Chinese overseas M&As cumulative abnormal return (CAR) and buy and hold abnormal return (BHAR). The time interval of CAR is -10 to + 10 days around the announcement date. The time interval of BHAR is 3 years after the announcement date respectively. The CAR using the formula $CARt=\sum_{t=0}^{n} ARt$. The BHAR using the formula $BHARit= \prod_{t=0}^{T}[1 + Rit] - \prod_{t=0}^{T}[1 + Rmt]$. I classified the returns by different group payment method, acquirer ownership, previous experience, target status, mergers type, final complete status, top 10 target industries. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Group	Subgroup		BHAR1	BHAR2	BHAR3	CAR(0,1)	CAR(0,5)	CAR(0,10)	CAR(-1,0)	CAR(-5,0)	CAR(-10,0)	CAR(-1,+1)	CAR(-5,+5)	CAR(-10,+10)
Payment Method	cash	Mean	-4.41%	-13.46%	-19.52%	1.63%	1.26%	61.22%	1.04%	2.94%	3.32%	2.17%	3.69%	3.62%
		P-value	0.4837	0.2819	0.2332	0.0798*	0.3933	0.0083955***	0.1407	0.0168**	0.2539	0.0637*	0.0771*	0.318
		N	54	41	33	75	75	74	75	75	74	75	75	73
	stock	Mean	-88.13%	-70.41%	-64.68%	0.03%	-2.41%	2.99%	-0.80%	2.67%	2.99%	0.09%	1.14%	0.03%
		P-value	0.001***	0.0033***	0.003***	0.9753	0.1435	0.1835	0.3518	0.0759*	0.1835	0.932	0.5606	0.9859
		N	15	11	9	18	18	18	18	18	18	18	18	18
	mix	Mean	-10.79%	8.59%	-0.01%	0.78%	0.28%	0.66%	0.84%	1.09%	2.50%	1.05%	0.80%	2.58%
		P-value	0.0492**	0.7129	0.9994	0.2362	0.8017	0.6503	0.1171	0.2391	0.0272**	0.1671	0.5628	0.1479
		N	104	83	71	119	119	119	119	119	119	119	119	119
Acquirer Ownership	SOE owned	Mean	-1.74%	-3.16%	2.08%	0.15%	-0.89%	-0.93%	0.78%	2.24%	3.88%	0.73%	1.14%	2.71%
		P-value	0.6983	0.7467	0.8453	0.8011	0.449	0.5507	0.0946*	0.0156**	0.0895*	0.2426	0.4358	0.3369
		N	80	61	50	96	96	95	96	96	95	95	95	94
	Private owned	Mean	-27.34%	-5.68%	-21.12%	1.78%	1.54%	1.58%	0.74%	1.66%	2.22%	1.90%	2.56%	3.17%
		P-value	0.0003***	0.8288	0.3108	0.0227**	0.1873	0.2384	0.2287	0.0985*	0.0558**	0.0522*	0.1023	0.0803*
		N	93	74	63	115	115	115	115	115	115	115	115	115
Previous Experience	experienced	Mean	-8.29%	-9.94%	7.43%	1.58%	0.80%	0.29%	0.14%	1.27%	0.93%	1.74%	2.10%	1.25%
		P-value	0.2527	0.4404	0.6999	0.1194	0.6589	0.8923	0.7551	0.2185	0.4507	0.1082	0.3246	0.6063
		N	56	40	30	74	74	74	74	74	74	74	74	74
	1stmerge	Mean	-18.95%	-2.26%	-17.47%	0.72%	0.18%	0.37%	1.11%	2.20%	3.85%	1.16%	1.71%	3.53%
		P-value	0.0013***	0.9126	0.2619	0.1868	0.8248	0.7311	0.0475**	0.0144**	0.0272**	0.1053	0.1558	0.0971*
		N	117	95	83	138	138	137	138	138	137	138	138	136
Target Status	target public	Mean	-0.58%	53.37%	33.64%	-0.44%	-1.44%	-3.77%	-0.43%	0.78%	-0.34%	-0.31%	-0.11%	-3.74%
		P-value	0.9307	0.3073	0.3848	0.5373	0.4561	0.0883*	0.5338	0.5849	0.8288	0.6841	0.9643	0.193
		N	44	35	28	52	52	51	52	52	51	52	52	50
	target private	Mean	-20.59%	-24.81%	-25.52%	1.49%	1.00%	1.65%	1.16%	2.23%	3.84%	1.91%	2.48%	4.75%
		P-value	0.0003***	0.0047***	0.0173**	0.016**	0.2706	0.1473	0.0147**	0.0044***	0.0112**	0.0111*	0.0378**	0.0131**
		N	129	100	85	160	160	160	160	160	160	160	160	160

Mergers Type	conglomerate	Mean	-13.79%	-19.03%	-17.98%	1.31%	0.97%	0.42%	1.27%	1.75%	1.92%	1.89%	2.03%	1.60%
		P-value	0.0162**	0.0475**	0.204	0.0473**	0.4079	0.7495	0.0234*	0.0477**	0.0924*	0.0126**	0.154	0.3497
		N	84	70	61	101	101	100	101	101	100	101	101	99
	vertical/horizon	Mean	-17.12%	11.07%	-2.50%	0.76%	-0.12%	0.27%	0.32%	1.98%	3.65%	0.88%	1.68%	3.73%
		P-value	0.0171**	0.7072	0.9081	0.3105	0.9203	0.8619	0.5729	0.0557*	0.0777*	0.3343	0.2958	0.1609
		N	89	65	52	111	111	111	111	111	111	111	111	111
Complete Status	completed	Mean	-15.82%	-2.75%	-14.03%	0.64%	-0.82%	-0.95%	0.95%	1.69%	3.09%	1.16%	0.43%	1.70%
		P-value	0.0032***	0.9052	0.4371	0.2818	0.4207	0.4142	0.0616*	0.046**	0.0904*	0.0883*	0.7437	0.4518
		N	109	83	68	127	127	127	127	127	127	127	127	127
	uncompleted	Mean	-14.96%	-7.40%	-6.07%	1.59%	2.22%	2.29%	0.50%	2.16%	2.44%	1.67%	3.97%	4.29%
		P-value	0.0799*	0.5689	0.7012	0.071*	0.1108	0.2168	0.4334	0.0634*	0.0633*	0.1297	0.0303**	0.0511*
		N	64	52	45	85	85	84	85	85	84	85	85	83
Top10 Target Industry	Metal Mining	Mean	-17.20%	-14.09%	-17.84%	-0.67%	-0.03%	-4.82%	-0.38%	-0.09%	-1.97%	0.00%	-2.31%	-5.75%
		P-value	0.1774	0.5216	0.3574	0.4812	0.1669	0.1009	0.6262	0.9555	0.3153	0.9978	0.4274	0.1195
		N	21	16	8	27	27	27	27	27	27	27	27	27
	Electrical Equipment and Components	Mean	-51.00%	-55.17%	-60.74%	0.77%	2.86%	1.20%	0.72%	0.19%	0.54%	1.27%	2.83%	1.51%
		P-value	0.0078***	0.042**	0.0369**	0.6068	0.1737	0.5801	0.506	0.9009	0.8358	0.4952	0.2851	0.6732
		N	22	19	16	24	24	24	24	24	24	24	24	24
	Business Services	Mean	-20.40%	-66.08%	-75.66%	3.04%	-1.56%	0.24%	1.51%	0.01%	8.34%	3.57%	-2.53%	7.59%
		P-value	0.0808*	0.0211**	0.0405**	0.0702*	0.4076	0.9325	0.422	0.998	0.3824	0.1413	0.5399	0.47
		N	18	14	12	21	21	21	21	21	21	21	21	21
	Holding & Other Investment Offices	Mean	6.02%	12.76%	39.44%	2.45%	1.05%	0.09%	0.40%	0.85%	3.71%	2.84%	1.88%	3.78%
		P-value	0.558	0.6289	0.5008	0.3334	0.6411	0.9684	0.7112	0.6834	0.1763	0.3297	0.5829	0.3382
		N	13	8	8	19	19	19	19	19	19	19	19	19
	Depository Institutions	Mean	-2.73%	7.86%	3.60%	3.28%	0.0281758	1.09%	0.83%	1.53%	2.63%	3.62%	3.85%	3.22%
		P-value	0.7833	0.1523	0.4974	0.0136**	0.1097	0.6278	0.28	0.3356	0.2653	0.016**	0.0838*	0.4049
		N	13	12	10	17	17	17	17	17	17	17	17	17
	Oil and Gas Extraction	Mean	11.20%	8.42%	72.92%	-3.96%	6.48%	-1.79%	0.76%	3.23%	5.89%	-3.01%	-3.30%	4.30%
		P-value	0.5398	0.8478	0.0847	0.0662*	0.0672*	0.6466	0.6292	0.1018	0.0444**	0.1415	0.354	0.3129
		N	9	8	8	10	10	10	10	10	10	10	10	10
	Industrial and Commercial Machinery and Computer Equip	Mean	19.57%	49.47%	64.15%	-1.05%	-8.81%	-9.80%	0.61%	8.45%	9.11%	-2.16%	-2.08%	-3.68%
		P-value	0.1471	0.2118	0.1718	0.7095	0.0169**	0.0699	0.7252	0.2328	0.2513	0.3481	0.7666	0.6945
		N	7	6	6	10	10	9	10	10	9	10	10	8
	Coal/Lignite Mining	Mean	2.10%	-8.44%	-93.01%	2.31%	11.30%	7.76%	1.92%	2.14%	-4.22%	3.80%	13.01%	3.11%
		P-value	0.8259	0.8584	0.4266	0.3235	0.268	0.4464	0.0652	0.3817	0.139	0.1177	0.2729	0.7306
		N	6	3	2	6	6	6	6	6	6	6	6	6
	Food and Kindred Products	Mean	-27.57%	-13.73%	-46.74%	2.81%	3.53%	11.43%	3.37%	2.30%	5.53%	4.75%	4.40%	15.53%
		P-value	0.1167	0.67	0.2057	0.1845	0.1189	0.0913*	0.3606	0.6506	0.3329	0.146	0.4819	0.0605*
		N	4	2	2	6	6	6	6	6	6	6	6	6
	Measurement	Mean	-58.32%	-48.65%	-60.22%	-0.27%	-2.57%	-1.65%	-0.27%	-0.23%	1.87%	-0.87%	-3.13%	-0.12%

	Analyzing, Control Industry and Related Prod.	P-value	0.4384	0.6062	0.4586	0.8095	0.596	0.5195	0.675	0.9225	0.6593	0.5295	0.3899	0.9731
		N	2	2	2	6	6	6	6	6	6	6	6	6
	Security&Commodity Brokers, Exchanges & Services	Mean	-12.78%	2.25%	-4.66%	4.28%	12.75%	13.03%	-1.00%	-0.69%	1.96%	2.90%	11.69%	14.62%
		P-value	0.4887	0.7429	0.6722	0.1942	0.3161	0.3433	0.5226	0.8348	0.4761	0.4433	0.2635	0.2334
		N	5	5	5	6	6	6	6	6	6	6	6	6
Average		Mean	-15.50%	-4.54%	-10.86%	1.02%	0.40%	0.34%	0.77%	1.87%	2.83%	1.36%	1.85%	2.72%
		P-value	0.0008***	0.7618	0.3845	0.0413**	0.6298	0.7382	0.0517	0.0062***	0.0196**	0.0227**	0.0863*	0.0918*
		N	173	135	113	212	212	211	212	212	211	212	212	210

TABLE 6: The Multivariate Analysis of Short Run Factors for Chinese Outbound M&As

This table presents the results for the multivariate analysis of the short run factors for Chinese overseas M&As. The model regress the different time interval CARs from -10 to +10 days around the data of deal announcement. The model include a dummy which takes the value of one if the deal was conglomerate mergers(CONGLOMERATE); if deal was the public listed target (PUBLIC TARGET); if deal was state owned enterprises acquirers (SOE ACQUIRER); if acquirer do not have mergers experience (NON EXPERIENCE); if deal was finally report complete (COMPLETE); if the deal was financed using 100% cash (CASH).The model also include Tobin Q ratio, Market Capitalization, Market to Book value, Financial leverage, Trailing 1 year BHAR, Trailing 1 year market return, Trailing 1 year CAR as dependent variable. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Variable	CAR(-1,+1)		CAR(-2,+2)		CAR(-1,0)		CAR(-5,0)	
	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value
TOBIN Q	0.0096	0.1460	0.0043	0.6380	0.0022	0.6380	0.0028	0.7190
MCAP	0.0000	0.4830	0.0000	0.6170	0.0000	0.8390	0.0000	0.8200
MTBV	-0.0003	0.6500	0.0003	0.7220	-0.0002	0.7550	0.0001	0.9180
MV	0.0000	0.8290	0.0000	0.9380	0.0000	0.6260	0.0000	0.7230
LEVERAGE	-0.0003	0.4230	-0.0003	0.5980	-0.0004	0.6090	0.0001	0.8880
TRAILING BHAR	0.0178	0.2320	0.0170	0.4040	-0.0033	0.2230	0.0049	0.7780
TRAILING RETURN	-0.0015	0.9310	-0.0057	0.8070	-0.0044	0.3740	0.0122	0.5400
TRALING CAR	-0.0155	0.4170	-0.0046	0.8620	0.0067	0.2260	-0.0083	0.7110
CONGLOMERATE	0.0095	0.6000	-0.0157	0.5290	0.0066	0.7560	0.0040	0.8500
PUBLIC TARGET	-0.0136	0.5240	-0.0135	0.6460	-0.0187	0.7170	-0.0151	0.5440
SOE ACQUIRER	-0.0983	0.3130	-0.1063	0.4270	0.0621	0.6270	0.1080	0.3440
NON EXPERIENCE	-0.0169	0.4100	-0.0318	0.2620	0.0024	0.8690	0.0102	0.6710
COMPLETE	0.0059	0.7620	0.0215	0.4210	0.0131	0.3470	0.0317	0.1650
CASH	0.0765	0.4320	0.0728	0.5870	-0.0612	0.3820	-0.1245	0.2760
STOCK	0.0580	0.1500	0.0933	0.0930	0.0316	0.2750	0.0117	0.8030
MIX	0.0331	0.3910	0.0573	0.2810	0.0236	0.3950	-0.0238	0.5990
_cons	-0.0189	0.6720	-0.0255	0.6770	-0.0155	0.6290	0.0033	0.9490
Number of obs	127		127		127		127	
F Value	1.0200		0.9000		0.6800		0.4100	
R-squared	12.08%		10.81%		8.41%		5.30%	
Adj R-squared	0.20%		1.24%		3.97%		7.50%	

TABLE 7: The Multivariate Analysis of Long Run Factors for Chinese Outbound M&As

This table presents the results for the multivariate analysis of the long run factors for Chinese overseas M&As. The model regress the different time interval BHARs from +1 to +3 years after the deal announcement. The model include a dummy which takes the value of one if the deal was conglomerate mergers(CONGLOMERATE); if deal was the public listed target (PUBLIC TARGET); if deal was state owned enterprises acquirers (SOE ACQUIRER); if acquirer do not have mergers experience (NON EXPERIENCE); if deal was finally report complete (COMPLETE); if the deal was financed using 100% cash (CASH).The model also include Tobin Q ratio, Market Capitalization, Market to Book value, Financial leverage, Trailing 1 year BHAR, Trailing 1 year market return, Trailing 1 year CAR as dependent variable. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Variable	BHAR 1year		BHAR 2year		BHAR 3year	
	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value
TOBIN Q	0.0496	0.12	0.2205	0.2	0.2611	0.052*
MCAP	0.0000	0.969	0.0000	0.776	0.0000	0.63
MTBV	-0.0060	0.079*	-0.0080	0.858	-0.0287	0.385
MV	0.0000	0.712	0.0000	0.801	0.0000	0.805
LEVERAGE	-0.0070	0.003***	-0.0224	0.026**	-0.0251	0.001***
TRAILING BHAR	0.0748	0.299	0.9070	0.003***	0.4094	0.064*
TRAILING RETURN	-0.0593	0.447	-0.6038	0.065	-0.0395	0.887
TRALING CAR	0.0227	0.816	-1.6783	0.000***	-0.9604	0.003***
CONGLOMERATE	-0.0873	0.326	-0.3056	0.456	-0.0674	0.839
PUBLIC TARGET	0.1589	0.135	1.0563	0.028**	0.7789	0.053*
SOE ACQUIRER	0.0405	0.694	-0.5194	0.268	0.0607	0.868
NON EXPERIENCE	-0.1002	0.307	0.0196	0.966	-0.3438	0.341
COMPLETE	-0.0668	0.887	0.1682	0.929	0.2228	0.871
CASH	0.0839	0.858	-0.4820	0.798	-0.4619	0.737
STOCK	-0.5725	0.009***	-2.1871	0.025***	-1.7232	0.032***
MIX	0.0563	0.552	0.6008	0.166	0.5224	0.158
_cons	0.1296	0.396	0.3724	0.616	0.3420	0.56
Number of obs	123		96		80	
F Value	2.3600		2.5000		2.4700	
R-squared	24.89%		31.92%		36.69%	
Adj R-squared	14.36%		19.15%		21.85%	

CHAPTER 3 CHINESE DOMESTIC M&As

3.1 Descriptive Statistics

From 1990 to 2011, the market for Chinese domestic mergers and acquisitions experienced a boom period. Initially, few domestic M&As were conducted in China. However, in recent years, hundreds of mergers have been completed and an increasing number of companies have recognized the importance of this business tool. Between 1990 and 2011, 3461 Chinese domestic M&As were initiated. To analyse Chinese M&A history, I apply our previous classification of the M&A market life cycle. Obviously, due to the recent economic explosion in China, the development phase of Chinese domestic M&As was much shorter than those of Western countries because China relied tremendously on the experiences of other developed countries, as shown in Figure 3:

The seed stage lasted from1990 to 1995. Because China had just reopened its stock exchange in 1990; there were initially few listed M&A participants. Because China's economy was just beginning to grow, the concept of M&As was unfamiliar to most companies and thus merger activity was rare. During this five-year period, only 5 mergers were reported.

The second stage, the pioneer stage, spanned 1996 to 2000. Due to government efforts to encourage economic growth in the private sector and inbound foreign direct investment, China's GDP increased by approximately 10% per year. An increasing number of companies went public and began to expand their businesses through various business tools. In terms of M&A activity, 106 deals occurred during this period. The number of mergers was still small but represented a significant increase over the seed stage. M&A activity began to grow quickly during this stage, which triggered the next stage.

The third stage began in 2001, and the number of deals soared. As a result of the miracle of China's economic growth, the Chinese capital market embarked on one of the best times in its history. A vast number of companies started to expand their businesses, and the market was more mature. The Chinese market was still characterized by a lack of expertise, but both entrepreneurs and the government began to realize the importance of capital market approaches such as M&A activity and thus started to explore more M&A possibilities with either competitors or start-up firms. Entrepreneurs were better educated and became more familiar with the new business models. M&A activity rose dramatically from 2001 to 2005, 641 transactions were reported. However, domestic M&As were predominantly horizontal or vertical in nature during this stage. Acquisitions mainly occurred within the same industry as large companies bought smaller firms to enlarge their businesses.

The fourth stage was the booming stage, which lasted from 2006 to 2011.The Chinese economy had entered a bullish cycle, financial liquidity was high, and the investment market was becoming very hot—indeed, on October 16, 2007, the stock market index reached a peak of 6,124 points, the highest level in its history and 3 times greater than the level reached just three years previously. Simultaneously, real estate and related industries, such as the financial and mining industries, also grew rapidly, which had the effect of trapping the entire market in a fragile bubble. M&A activities were popular, and many merger transactions created giant companies. The graph presented above shows how active the M&A market were. There were 2,707 M&A deals reported in this five-year period, with the number of deals increasing steadily except during 2009, when the financial crisis devastated the entire business world. M&As had become a common tool used by companies to expand their businesses and diversify business risk. Also during the fourth stage, the Chinese government implemented many policies and plans to promote M&As between firms in different industries. The government wished to increase industrial competitiveness and to accelerate economic reform and restructuring. Mergers, especially interregional

mergers, became more frequent in the market. Authorities perceived that many industries were characterized by redundant construction, weak self-innovation and apathetic competition and concluded that industry consolidation through M&As was warranted. Therefore, a series of incentive policies were implemented to encourage private investment in certain authorized industries and to allow private capital to participate in a greater number of M&A activities. One such policy directed the banking system to provide sufficient financial support for mergers.

The variety of sectors that participated in M&A activity also warrants attention. As shown in Table 8, as many as 10 sectors generated a substantial number of transactions. The real estate sector led this trend with 394 transactions, which accounted for 11.38% of all mergers. Housing prices tripled in first decade of 21st century, which generated huge profit margins for real estate companies. The large volume of cash held by real estate companies created a means for them to acquire other companies. Additionally, the high profitability of real estate fostered an excellent relationship between banks and real estate companies. Banks believed that the real estate sector had great potential and that loans to this sector presented minimal risk. The good relationship between the real estate sector and banks drove the housing market even higher. Consequently, real estate companies not only had capital from the sale of their inventories but also had cheap money borrowed from banks. The strong balance sheets of real estate companies are the underlying reason why the real estate sector led the M&A market. The second most active sector in M&A activity was chemicals and allied products, which accounted for 9.62% of mergers. The booming Chinese market stimulated internal consumption, which motivated producers and retailers to sell more products. Additionally, advances in technology enabled producers to achieve greater economies of scale. Electric, gas, and sanitary services accounted for 6.5% of all M&A activity, and the business services sector accounted for approximately 5.43%. The transportation equipment sector accounted for 3.55% of merger activity. All these industries benefited for the same reason. Two sectors of the financial industry made the top ten lists; the first is holding and

investment, and the second is security and commodity brokerage. Due to the substantial amount of foreign investment, as well as overseas hot money and domestic market liquidity, the financial industry boomed in recent years. In addition, the deregulation of dividend operation management in the banking system and in the security and insurance sector prompted an increasing number of financial companies to become conglomerate financial holding enterprises. Moreover, the Chinese government relaxed restrictions on foreign company investment in the financial industry after acceding to the World Trade Organization. Deregulation also drove a merger wave in the financial industry. In general, target industries became popular for three reasons: the economic boom, which benefitted public services, business services, and transportation; business deregulation, which benefitted the financial and real estate sectors; and friendly government policies and the prosperous real estate industry. The combination of these three factors created innumerable business opportunities.

As shown in Table 9, the top ten industry sectors for acquirers were very similar to those of targets, which mean that most mergers involved two firms in the same industry. There were two exceptions: stone, clay and glass products and food and kindred products. These two industries may have had already reached the conglomerate phase, possibly because they engaged in M&A activities earlier than other industries as a means of diversifying their business risk. Another possible reason is that these sectors were characterized by free competitive markets, with numerous competitors and frequent mergers. At the same time, other industries were transformed into oligopolies, in which one large company might acquire several targets. In such cases, the acquirer industry would not be ranked as one of the top ten most popular acquirer industries. Consider the financial industry as an example. Recently, due to the deregulation of separate financial operations, many financial holding companies acquired several financial institutions (such as commercial banks, trust companies, and insurance companies and securities companies), thereby becoming financial conglomerates. These firms were anxious to enrich their

production lines and to achieve economies of scale.

Payment method data were available for 1817 deals. In domestic M&As, most buyers and sellers preferred the cash payment method, which accounted for 1110 deals (61.09%). Stock payment was used in only 379 deals (20.86%) and mixed payments were used in 328 deals (18.05%). The distribution was fairly consistent with those of other countries, where cash payments are used for most M&As. Payment in cash may indicate that a buyer is more ambitious about earning money in the future.

I also considered the final status of mergers announced by public companies. Of 3461 total deal announcements, 1131 (32.67%) were reported as completed, 2038 (58.87%) were reported as pending, 150 (4.33%) were reported as intended, 140 (4.04%) were ultimately withdrawn, and the status of 2 deals (0.06%) was unknown.

Regarding the acquirer's ultimate ownership share in the target, I divided acquirer ownership into three groups based on percentage. Acquirer ownership was known for 1196 deals and unknown for 2269 deals. With respect to those deals for which the data were available, 895 acquirers (75.05%) obtained the right to control the target company by acquiring a greater than 50% share, 214 acquirers (17.95%) obtained significant influence over the target company (i.e., they owned between 20% and 50% of the target company stock), and 83 acquirers (6.96%) obtained only limited influence over the target company (i.e., they held a less than 20% share). This distribution indicates that most acquirers aim to control or at least have a significant impact on their targets.

In terms of acquirer status, 1862 acquirers (53.8%) were state owned and 1599 (47.2%) were private. SOEs constituted a majority of buyers because state-owned businesses accounted for the most significant part of Chinese economy and because state-owned enterprises constituted a significant portion of publicly listed companies. However, it is quite possible that private buyers may eventually lead the M&A market,

and this ‘catching-up’ process may accelerate as the Chinese government becomes more market oriented and weakens the influence of state-owned entities.

Merger type describes whether the acquirer and target operate in the same industry. Of 3461 transactions, 1761 deals combined firms in the same industry through horizontal or vertical M&As. The remaining transactions were mainly conglomerate mergers in which the acquirer and target operated in totally different sectors; the purpose of this type of merger is diversification. Similar to the distribution for acquirer status, the two groups of merger types account for approximately equal shares. A diversity of merger types will enable the M&A market to prosper.

Regarding buyer experience, 1885 deals (51.47%) were initiated by experienced buyers and 1587 deals (48.53%) involved first-time buyers. Of course, over time, the proportion of first-time buyers will decrease as more companies gain M&A experience. In addition, a greater number of companies may engage in multiple M&A transactions.

In summary, from 1990 to 2011, domestic M&As in China increased rapidly as a result of many endogenous and exogenous factors, including economic growth, increased foreign direct investment and government deregulation. The most popular target industry was the real estate industry (12.34%), and the chemical and allied products industry accounted for the greatest share of acquirers (11.38%). Cash (61.09%) was the predominant payment method. State-owned enterprises (53.8%) accounted for a majority of M&As, and conglomerate mergers (51.91%) were the most common merger type. Most buyers (51.47%) had previous merger experience. Only 32.67% of announced mergers were reported as completed, and 75.08%of buyers obtained a controlling share in the target.

3.2 Short- and long-term abnormal return analysis

3.2.1 Short-term Analysis

For the short-term analysis, I defined the time interval as 40 working days around the merger news release. I calculated the average abnormal return, cumulative abnormal return and average cumulative abnormal return, as shown in Figure 4. Our results show three things: First, abnormal returns existed during the short-term period. Second, the cumulative returns were positive and statistically significant. Third, different merger characteristics, such as payment method, acquirer ownership, previous merger experience, target status and merger type, can result in different abnormal returns.

Short-term abnormal returns existed during the 40 days around the trigger event and were statistically significant. Abnormal returns before and after the announcement day exhibited totally different trends. The AAR steadily increased before the announcement day and reached its peak on announcement day (0.06%). Before the announcement, between -12 and -8 days, the abnormal return increased gradually, from 0.02% to 0.06%. After the announcement, the abnormal return began to decrease and even became negative on certain days.

The cumulative return rose steadily during the holding period, increasing from 0.11% at -20 days to 3.11% at 20 days; however, the average CAR reach its highest point (0.13%) close to the announcement date. The average CAR showed the same trend as the AAR, increasing steadily before the announcement date and decreasing after the announcement. The t tests of Chinese overseas merger CARs for the -20 to +20 day interval are all significant at a 99% level, as shown in Table 10. This result is inconsistent with those of Western countries such as the US and UK. In China, investors view M&A news as good news; when an acquirer announces a new merger, this is viewed by investors as a signal that the acquirer has a promising future, is in good financial condition, and is capable of expanding its business. Thus, abnormal

returns persist after the merger announcement. Even if investors buy stock in the acquirer on the announcement date, they still can earn abnormal returns over the next several days. However, the abnormal return will then begin to decrease gradually and become negative, which may indicate that investors initially overreact to merger news. When the market value of the stock exceeds its inherent value by too much, the stock price reverses. These results are in line with those of Tuan et al. (2007). They used a sample of 22 tender offer bids from 2002 to 2006 and found that the short-term abnormal return (-30 to 0 day CAR) is significantly positive and the post-announcement abnormal return is negative. The authors suggested that the significant pre-announcement price appreciation implied insider trading and that mandatory tender offer events had no impact on the share price of target firms.

I categorize the mergers based on different characteristics and observe that certain characteristics, including payment method, acquirer ownership, previous mergers experience, target listing status, merger type, final status, and target industry. These results are depicted in Table 11.

Payment method significantly affects short-term abnormal return. Stock payment yields the highest return (4.25%) from -1 to +1 days, cash payment earns a 1.57% abnormal return, and mixed payment yields a 1.05% abnormal return. I also considered different time intervals: before the announcement -10, -5, -1 to 0 days, after the announcement 0 to +1, +5, +10 days and around the announcement date +10 to -10, +5 to -5, +1 to -1. Generally speaking, stock payment yields the highest return, ranging from 2.17% to 10.66%; cash payment yields the lowest return, from 1.28% to 2.35%; and mixed payment yields a moderate return. The abnormal returns of both stock and cash payments are statistically significant, whereas the abnormal return for mixed payments is insignificant (except for the -10 to 0 day time interval). These results are contrary to those of previous research that used UK or US data; they are also contrary to the results for Chinese overseas mergers. According to traditional theory, stock payment indicates that a buyer is more uncertain about the planned

merger; by exchanging its own stock for the target stock, the buyer shifts some of the risk to the seller. However, in China, the stock market functions as an approval system. Specifically, a company that wants to list its stock on the board must be approved by the China Securities Regulatory Commission. Therefore, publicly listed companies are limited and thus investors usually consider publicly listed companies to have good operating quality. Exchanging publicly listed stock for private company stock indicates that the private company is very valuable and suitable for further business expansion. In addition, stock payments reduce financial costs because acquirers do not need to use cash or borrow money from external sources. For these reasons, investors believe that stock payments are better than cash payments and are willing to buy acquirer stock at premium.

Short-term abnormal returns are higher for privately owned acquirers than for SOE acquirers. The privately owned buyer yields a short-term return between 1.33% and 2.93%, whereas the SOE acquirer yields between 0.85% and 2.55%. The abnormal returns for all time intervals are statistically significant and differ slightly from each other. These results are consistent with those for overseas mergers and may indicate that investors have more confidence in privately owned acquirers than in SOE acquirers in terms of their M&A ability.

Previous merger experience does not have a significant effect on short-term abnormal return. The experienced buyer yields an abnormal return of 1.13% to 2.39%, whereas the non-experienced buyer yields an abnormal return of 1.05% to 3.11%. All time intervals pass the significance test. However, the results indicate that short term investors do not consider the acquirer's previous merger experience to be an important factor.

Target listing status affects short-term abnormal returns. Publicly listed targets yield abnormal returns between 2.64% and 3.41% at different time intervals, whereas private targets yield abnormal returns between 0.92% and 2.67%. Therefore, publicly

listed targets generate higher abnormal returns than private targets. This result is contrary to that obtained for Chinese overseas mergers, indicating that short-run investors in domestic mergers consider public company targets preferable to private company targets because public companies have lower business risk and higher liquidity.

Merger type has a slight effect on short-term abnormal return. Conglomerate mergers yield 1.09% to 3.38% abnormal returns, whereas horizontal/vertical mergers yield 1.08% to 2.04% abnormal returns in different time intervals. All time intervals pass the significance test. However, the difference is very slight; the abnormal returns of conglomerate mergers are slightly higher than those of same-industry mergers. This indicates that the short-term investor pays little attention to merger type and does not care about the acquirer's merger motivation.

The final status of the merger is reflected in the short-term abnormal return. Mergers reported as complete yield an abnormal return between 1.2% and 3.03%, whereas uncompleted or pending deals yield an abnormal return between 1.03% and 2.6%. All time intervals pass the significance test at a 99% confidence level. These results are very interesting because they indicate that short-term buyers can predict the final merger status. The results also indicate that short-term buyers consider and analyse the likely final merger status and that a lower stock price reflects lower investor confidence that the deal will close successfully.

Target industry sector also affects abnormal returns. I analysed the top ten target industries and divided the results into three groups. The first group yields significant positive abnormal returns. Specifically, the industrial machinery and equipment industry yields the highest abnormal returns, ranging from 1.32% to 4.05% at different time intervals. The real estate industry yields the second highest abnormal returns, from 1% to 4.01%. The chemicals and allied products yield the third highest abnormal return, from 0.88% to 2.79%. The second group of industries yields

ambiguous positive returns, meaning that certain intervals pass the t test and show positive abnormal returns. Industries in this group are the electric, gas, and sanitary services industry; holding and other investment industries; the business services industry; primary metal industry; and the security and commodity brokerage industry. The third group comprises industries that yield insignificant abnormal returns and includes the electronic and other electric equipment industry and the transportation equipment industry. Considering that the average abnormal returns are significant in all time intervals, ambiguous and insignificant results may indicate that these industries underperform relative to the entire M&A market. The performance of different industries may differ significantly due to unique industry characteristics, business cycles and market situations. For example, due to the recent property bubble in China, short-term stock investors have more confidence in real estate mergers. In the financial industry, because of licensing limitations and the greater strength of buyers relative to sellers, the selling price may have a higher premium, which creates more financial pressure on the target and the seller may gain more than the acquirer. The metal industry, especially aluminium and iron mining, is facing an over-capacity situation, which may cause negative investor attitudes. To conclude, different industries have unique characteristics and situations that generate different investor attitudes towards mergers and result in different abnormal returns.

3.2.2 Long-term Analysis

For the long-term analysis, I use the monthly acquirer stock price and the market index proxy for market return to calculate the 1-year, 2-year and 3-year buy-and-hold abnormal returns. There are two findings. First, in the long run, the acquirer's stock price will decrease, indicating that merger activity is detrimental to acquirers. Second, different mergers characteristics, such as payment method, ownership, previous merger experience, target status, merger type, final status and target industry, significantly affect the long-term return.

As illustrated in Table 11, acquirers exhibit positive returns before mergers. However,

in the first year post-merger, acquirers yield a 3.94% return, which is statistically significant; in the second year following the merger, the result is 1.8%, which does not pass the t test; and in the third year, the acquirer's return turns negative (-5.08%) and is statistically significant at the 90% confidence interval. These results are consistent with the findings of previous research using US and UK data, specifically, the target is the winner and gains post-merger, whereas the acquirer suffers a loss in long run. The findings are also in accordance with Zhang (2003), who applied the event study method to analyse the M&A activity of Chinese publicly listed companies and found that M&As add value to the target company but have a negative effect on buyer income and financial performance. Wang (2007) used a sample of 618 acquisitions of Chinese listed companies, and found that the market performance, operating performance and market valuation of acquiring firms decrease significantly after an acquisition, but the earnings management of the acquiring firm has a significantly positive effect. There are many reasons for acquirer losses. First, the acquirer may overpay for the target, and second, when the merger is paid in cash, the buyer may need to borrow heavily, which increases the buyer's financial cost.

Different mergers characteristics also result in different long-term returns. I classified the mergers based on different characteristics and obtained a number of findings.

Different payment methods yield significantly different long-term returns. The acquirer that pays in cash yields returns of 4.02%, -5.35% and -14.08% in years 1, 2 and 3, respectively, but only the 3-yearreturn passes the t test at a 99% confidence interval. A mixed payment yields returns of -6.52%, -0.2% and -23.37% in consecutive post-merger years, but only the 3-year return passes the t test. Stock payment yields returns of 11.47%, 21.97% and 27.64%, and all 3 years pass the t test at the 99% level. The results show that stock payment yields positive returns for the buyer whereas cash and mixed payments yield a long-term negative return in the 3-year time interval. These results are inconsistent with the results of Western countries, where the cash buyer earns more than the buyer that pays in stock because

the cash buyer is more confident about the merger. However, the results accord with the short-term returns of Chinese domestic mergers, as I discussed earlier. An acquirer is willing to exchange its stock for the target's stock only if the target is important to the acquirer's business. In addition, stock exchanges are preferable because buyer and seller share the business risk; therefore they have more incentive to cooperate to create synergy value relative to mergers paid in cash.

Regarding the ownership status of acquirers, the SOE acquirer yields a 4.4% return in the first year, 3.48% in the second year, and -6.75%in the third year. The privately owned acquirer yields a positive return in the first year but negative returns in the next two years. However, the t test is not significant. Generally speaking, although the post-merger performance of SOE firms is better than that of privately owned firms in the long run, SOE performance is nonetheless damaged by a merger. Zhou et al. (2012) also found that in the Chinese market, as long as the bidding firm is state or government owned, it has a greater chance of earning much higher returns relative to a privately held bidder. This finding contradicts the fact that state-owned companies usually perform poorly in the market. The authors suggest that acquirers that are ultimately controlled by the government will benefit from favourable treatment by the government and therefore generate higher long-term post-merger returns. Cheung, Rau and Stouraitis (2009) propose that SOEs may benefit from political connections, preferential loans, government-sponsored bailouts and other policies.

I also considered past merger experience. Acquirers with prior merger experience yield positive returns of 6.91%, 6.83% and 4.69% in year 1, year 2 and year 3, respectively. Year 1 and year 2 pass the significance test at the 99% confidence level. The first-time acquirer yields statistically significant negative returns, earning -12.05% at the third year. These results indicate that experienced buyers will outperform inexperienced buyers and will earn a positive return in the long term.

Whether the target is publicly listed or privately held also affects long-term abnormal

return. The acquisition of public target yields 9.79%, 3.73% and -15.01% abnormal returns in year 1, year 2 and year 3, respectively, and year 1 and year 3 pass the t test. The acquisition of a private target yields 3.33%, 1.56% and -4.2% abnormal returns. However, only year 1 is statistically significant. To conclude, public targets earn more in the short run and the first year, but lose more in subsequent years. This result may occur because acquirers usually overpay for publicly listed targets because such targets are typically more liquid and of a higher quality relative to private firms. If the acquirer overpays for the target, it may be unable to earn a return that covers the merger payment, causing the acquirer to lose even more.

With respect to merger type, whether the acquirer and target operate in the same industry does not greatly affect the long-term return. Both types of mergers yield a positive return in the first year—3.43% for conglomerate mergers and 4.53% for vertical/horizontal mergers—before the return turns negative, but the difference between subsequent returns is small.

The impact of final merger status on long-term return strongly supports the winner and loser effect. If the deal is ultimately successful, the acquirer yields a negative return. However, if the deal is not completed or remains pending, the acquirer yields a positive return of 4.43% and 4.34% in year 1 and year 2, respectively.

Different target industries also yield different long term returns. I analysed the top ten most frequent target industries to determine whether differences exist between industries. The business services industry suffers the greatest loss on average, -7.43%, -7.71% and -39.2% for year 1, year 2 and year 3, respectively, and year 3 is significant at a 99% confidence interval. The electric, gas, and sanitary services industry is the second biggest loser, yielding long-term abnormal returns of -1.02%, -10.43% and -33.32% in consecutive post-merger years. The holding and investment industry loses -10.47%, 0.97% and -20.41% in respective post-merger years, and both year 1 and year 3 are statistically significant. Generally speaking, mergers in nearly

every industry suffer a long-term loss. The only exception is the security and commodity brokerage industry, which yields positive returns of 20.27%, 20.78% and 52.34% in year 1, year 2 and year 3, respectively, and all three years pass the significance test. This result is due the industry business cycle. Specifically, from 2000 to 2005, the securities industry was hit hard by a long-lasting bear market, and many small security companies either failed or were acquired at low prices by large security companies. However, in 2006, the stock market suddenly started to boom, and the stock index increased from 998 points on June 3rd 2005 to 6124.04 on Oct 16th 2007, nearly a six-fold increase in 28 months. In summary, due to the unique business cycles and market conditions of different industries, their long-term returns are, not surprisingly, also different.

3.3 Multivariate Analysis

3.3.1 Short-term Multivariate Analysis

For the short-term multivariate analysis, I used different time interval CARs as independent variables. The time periods include the following: before the announcement -10 to 0 days, -5 to 0 days and -1 to 0 days; after the announcement 0 to +1 days, 0 to +5 days and 0 to +10 days; around the announcement -10 to +10 days, -5 to +5 days and -1 to +1days. The independent variables are divided into 3 groups: the first group comprises financial characteristics of the acquirer (i.e., Tobin's Q, market capitalization, market-to-book value and financial leverage); the second group comprises acquirer, target, and merger characteristics (i.e., merger type, acquirer and target types, acquirer ownership, acquirer previous experience, payment method and final status); and the third group relates to momentum effect and includes trailing one-year BHAR, CAR and market return. Generally speaking, I observe that these factors are significantly related to the short-term performance of acquirer stock. The results are illustrated in Table 12.

There is a negative relationship between Tobin's Q and short term performance,

indicating that short-term post-merger performance is relevant. The economic explanation for the negative relationship is that Tobin's Q is the ratio of the market value of an additional unit of capital to its replacement cost, which indicates the firm's likely growth due to M&A activity. If an investment of one unit of capital causes the market value to increase by more than one unit, the firm is encouraged to continue investing through endogenous investments or exogenous M&As. The Chinese domestic M&As short run return's relationship with Tobin's Q is inconsistent with the past researcher's finding in developed countries. Jovanovic and Rousseau (2001, 2002) summarized the previous study regarding the relationship between Tobin's Q and merger activities and claimed that a firm's investment rate should rise with its Tobin's Q. However the result is controversy in China, the higher the Tobin Q the lower the short run abnormal return.

Market capitalization may have a weak positive relationship with short-term abnormal return. Only the -1 to 0 day and -5 to 0 day intervals pass the t test.

Financial leverage has a positive relationship with short-term performance, which is consistent with traditional theory. Financial leverage is the ratio of a firm's total debt to its total assets; the greater the relative amount of debt, the greater the financial leverage. If an acquirer has already borrowed a large volume of money from external sources, it bears a heavy financial burden, which increases the possibility of bankruptcy. A new merger announcement indicates that the acquirer needs more money to buy target, which increases the uncertainty surrounding the future of the acquirer. Therefore, short-term investors may not be willing to pay a higher price for the acquirer's stock.

Whether a target is publicly listed is strongly positively related to acquirer short-term abnormal return. If the target is a public listed company, the acquirer's short-term stock price performs better relative to privately held targets. This phenomenon may due to the perception that public firms are managed well and are more transparent

than private companies. Because transparency can make it easier for short-term investors to estimate the value and future development of a merger, they are willing to pay more when the target is publicly listed. This finding is consistent with that of Bhabra and Huang (2013), who examined 136 Chinese domestic acquisitions from 1997 to 2007 in which the target firm was listed on the Chinese stock exchange. They found that the Chinese M&A market is dominated by domestic acquisitions of unlisted targets. Acquirers experience significant positive abnormal stock returns around the announcement date, which are largely driven by state-owned firms, cash acquirers and firms that acquire related targets.

State ownership of the acquirer is negatively related to the short-term return, especially before the announcement date. The negative effects are more significant pre-announcement than post-announcement, which means that investor confidence in SOE acquirers is low. The SOEs after merger performance in the past literature are controversy. Sun and Tong (2003) found that firm performance tends to be negatively related to state ownership. That is, SOEs usually do not perform as well as other firms. However, Zhou et al. (2012) showed that in the Chinese market, state- or government-owned bidders are likely to earn much higher returns than firms that are privately held, which contradicts the claim that state-owned companies usually perform poorly in the market. Although Chinese SOE firms occupy advantageous market positions and have an easier time obtaining licenses, bank credit, and other resources, they are also burdened by more social responsibilities and occasionally must comply with the government instructions. Therefore, certain SOE acquirers may not be trusted to consistently maximize shareholder profits. Due to the investor lack of confidence those certain SOE acquirers may not be trusted to consistently maximize shareholder profits, the short run performance tend to perform negatively.

Stock payment is significantly positively related to short-term returns in all tested time intervals. This positive relationship exists because acquirers who pay with stock do not need to borrow money from external sources and the acquirer’s future business

risk and financial costs do not increase as a result of the merger. In addition, in China, the exchange of publicly listed stock for stock in the target signifies that the target is important to the buyer and that both sides will share the business risk, which can encourage cooperation. For these reasons, short-term investors are more optimistic about the future stock price of the acquirer.

The momentum effects are not very significant. Only the trailing one-year BHARs at 0 to 5 days and 0 to 10 days pass the t test at a 95% confidence interval, and the trailing one-year CAR at -1 to 0 days passes the t test at a 95% confidence interval. The relationship is thus negative but weak. The trailing market return is insignificant. These results indicate the momentum effect on short-term abnormal returns is weak and insignificant.

3.3.2 Long-term Multivariate analysis

For the long-term multivariate analysis, I use the 1-year, 2-year and 3-year BHAR as the dependent variable to test whether financial characteristics, merger characteristics and the momentum effect impact the acquirer's long-term performance. The three-year buy-and-hold return reflects the acquirer's actual post-merger performance rather than short-term investors' predictions and confidence levels. The results are shown in Table 13:

Tobin's Q is weakly positively related to long-term performance. Tobin's Q represents the ratio of the market value of an additional unit of capital to its replacement cost. A high Tobin's Q indicates that the firm has good growth potential and thus may engage in mergers and acquisition to expand their businesses and thereby maximize shareholder profits. Only the 1-year BHAR is positively related to the long-term return, with a 90% confidence interval; the 2- and 3-year BHARs are insignificant. Tobin's Q has a weak positive relationship with long-term returns in Chinese domestic mergers. This result is inconsistent with the results of research in Western countries. For example, Lang, Stulz and Walkling (1991) reported that bidder returns are

significantly related to cash flow for low Tobin's Q bidders but less significantly related for high Tobin's Q bidders. Low Tobin's Q firms have poor investment opportunities, whereas high Tobin's Q firms have relatively better investment opportunities. As the classical explanation, the higher the Tobin's Q, the more productivity the acquirer has. However, both short and long run results in China domestic market showed the higher the Tobin's Q, the great loss the buyer will suffer.

Market value is weakly negatively related to long-term acquirer performance, the higher the market value, the worse the long-term performance. The relationship is negative for the year 1 BHAR with a 90% confidence interval and insignificant for the year 2 and year 3 BHARs. Market value is the market price that is acceptable to both buyer and seller. A higher market value reflects higher investor expectations. However, the investor may overestimate the acquirer's post-merger gain, and investor overpayment for acquirer stock increases its market value. If the acquirer fails to earn the estimated profits in the long run, the stock price will decrease.

Financial leverage is negatively related to long-term performance. Higher financial leverage leads to poorer long-term performance. The regression results are 95% significant for year 1 BHAR and insignificant for the next two years. These results are consistent with the short-term results. Financial leverage represents the debt burden of the acquirer. If acquirer borrows an excessive amount of money, its financial cost increases, which may reduce its profit. If the acquirer chooses the cash payment method, it will need to borrow additional money to pay for the target. If the acquisition price plus the financial cost is higher than the value of the synergies created by the merger, the acquirer faces a loss. In sum, higher leverage may increase both business risk and the cost of borrowing money, which may decrease profits and lead to a decline in stock performance.

To test the momentum effect on the mergers, I using the trailing 1-year CAR, 1-year BHAR and 1-year market return as variables. The results show that the momentum

effect does exist. The trailing 1-year BHAR is 99% significantly negatively related to year 2 BHAR and year 3 BHAR. The trailing 1-year market return is 99% significantly positively related to year 1 BHAR and year 3BHAR. The trailing 1-year CAR is 99% significantly positively related to year 2 BHAR and year 3 BHAR. The long-term performance is thus influenced by the previous year's stock performance and market return. This phenomenon is also explained by Maksimovic and Phillips (2002), who maintained that a firm that is more productive than the industry average will tend to acquire assets from less productive firms. However, the results are inconsistent with the past researchers done in both developed countries and China. For developed country, Rosen (2006) found a positive momentum effect. And for the China mergers, Zhou et al. (2012) found a positive relationship between the past 12-month market index return and the announcement returns for all periods. As I discussed in the previous chapter, this may due to the different sample criterion and the researchers take the Chinese domestic and overseas mergers together. In conclusion, in our study the monument effect in both the Chinese overseas and domestic mergers performances are ambiguous.

A lack of acquirer merger experience is negatively related to long-term performance, which means that experienced acquirers perform better than inexperienced acquirers. Performance is negatively related to a lack of previous experience. Previous merger experience can help a buyer better understand the target industry, adapt to the culture of the target, and create synergies.

A completed merger status is negatively related to the acquirer's long-term performance. This result is inconsistent with the past literature in developed country. Savor and Lu (2009) argued that more value is created for bidding firms' shareholders if the transaction is successfully completed. After the merger announcement, if the deal is ultimately withdrawn or remains pending, the acquirer's stock performs better than if the deal is reported as completed. For the past experience, Chinese overseas mergers just at start up phase. Due to the buyer lack of mergers experiences and

unfamiliar with the foreign market most successful acquirers ultimately suffer a loss. For a successful merger, the synergy value created by the mergers must exceed the price paid to the seller plus the cost of borrowing money. Traditional research shows that the seller is the winner of the merger transaction because it usually receives a premium price for the target. In Chinese overseas mergers,, the buyer usually overestimates the value created by the merger and ultimately loses.

Stock payment is significantly positively related to long-term performance. The regression result is significant at a 99% confidence level for the BHARs in all three years. A stock payment allows the buyer to share the business risk with the seller, which encourage the parties to achieve a cultural fit after the merger is complete. In addition, the acquirer does not need to borrow additional money to pay for the merger, which can reduce the financial cost. These results are consistent with those of Rohdes-Kropf et al. (2005), who found that stock acquirers are usually more overvalued than those paying cash. Loughran and Vijh (1997) asserted that on average, in the five-year period following an acquisition, firms that completed stock mergers have significant negative excess returns whereas those making cash tender offers earned tremendous positive excess returns. The explanation is that if a buyer uses its equity to pay for a merger, it usually implies that the buyer believes that its equity is overvalued.

3.4 Robustness

To check robustness, I used different time intervals for short-term and long-term abnormal return calculation and regression. The short-term time window encompasses -20 to +20 days around the announcement, and the long-term time window is three years BHAR.

The t tests of the short-term CARs are all significant at a 99% confidence interval, as shown in Table 10. The short-term CARs and long-term BHARs of different groups

are also tested for different time intervals. Cash payment, stock payment, privately owned acquirer, SOE acquirer, previous merger experience, etc., are significant for nearly all time intervals.

For the multivariate regression, I also consider the regional dummies and deal value in the robustness test. I take the regional dummies (including Asian dummies, European dummies, American dummies) and the deal value as the independent variables regression with both short and long term abnormal returns. These variables are insignificant at different time intervals. The increasing of these two independent variables do not increase the explanation power (adjusted R square) of the model.
I also applied different time intervals as the dependent variable in a regression with the independent variables. Most of the independent variable, including momentum effect and stock payment, are confirmed by the different time windows.

3.5 Conclusion

In this chapter, I conduct an in-depth examination of China's domestic M&A market over the past twenty years. In particular, I analysed the overall trends based on the statistics and calculated the acquirers' performance in both the short and long term. Additionally, I distinguished abnormal returns based on different merger characteristics and, finally, used a multivariate regression model to explore the factors that influence acquirers' long-term performance. Using a series of comparisons and summaries, I developed a clearer picture of China's domestic M&A market in terms of its history and current situation.

First, there have been four stages in China's M&A history over the past twenty years. These four stages include the seed stage, pioneer stage, growth stage and boom stage. Each stage has its own unique characteristics, but the M&A market has yet undergo a complete economic cycle. Due to the recent boom in the real estate market, real estate is the most popular target industry. Rising housing prices is to some extent perceived

as a symbol of economic growth. The greatest numbers of buyers operate in the chemical and allied products industry. The popularity of the top ten buyer and seller industries stems from their unique industry characteristics and business cycles. In addition, certain industry merger waves are caused in large part by the economic boom, government encouragement, and deregulation. Cash payment remains the most commonly used method. Most acquirers are SOEs, and most acquirers have previous merger experience. Conglomerate mergers and horizontal/vertical mergers each accounted for one-half of the mergers. The primary motivation of acquirers is to control the target, as opposed to gaining influence over the target or merely making a financial investment. Acquirers thus try to find the approach that will best achieve this goal.

Second, M&A activities significantly affect short- and long-term abnormal performance. The short-term abnormal returns for 20 business days around the announcement date are significant, ranging from 1.09% to 2.74%. Acquirer performance in the long run is also significant; it remained positive during the first two years but turned negative beginning in the third year. Additionally, different mergers characteristics affect both short- and long-term performance. Mergers that are paid using stock yield higher short- and long-term abnormal returns than cash and mixed payments. Privately owned acquirers have higher short-term returns than SOE acquirers, but SOEs dominate long-term performance. Previous merger experience does not affect short-term return but has a significant positive relationship with long-term return. Public targets yield higher short-term returns and greater long-term loss. Merger type is not relevant to merger performance. The successful completion of a merger results in lower short- and long-term abnormal returns. Buyers and targets from different industries earn significantly different short- and long-term returns.

Third, a multivariable regression analysis was applied to analyse whether various factors affect short- or long-term performance. There are three main findings: first, financial parameters affect acquirer performance. Tobin’s Q and market value each

have a positive relationship with both short- and long-term return, whereas financial leverage has negative relationship with acquirer performance. Second, deal characteristics affect future performance. A publicly listed target has a positive relationship with short-term performance but is irrelevant to long-term performance. SOEs have lower short-term abnormal returns, and stock payment has a significant positive relationship with both short- and long-term returns. Third, the short-term monument effect is insignificant; however, the long-term monument effect does exist.

FIGURE 3: The Deals of Chinese Public Company Domestic M&As

This Figure shows yearly data of the Chinese overseas M&As from January 1991 to October 2010. The sample contains all the public listed acquires in China Shanghai Stock Exchange and Shenzhen Stock Exchange mergers Chinese domestic target which deal value higher than 5 million. The total sample size is 3461 deals. These data collect from Thomson One Banker.

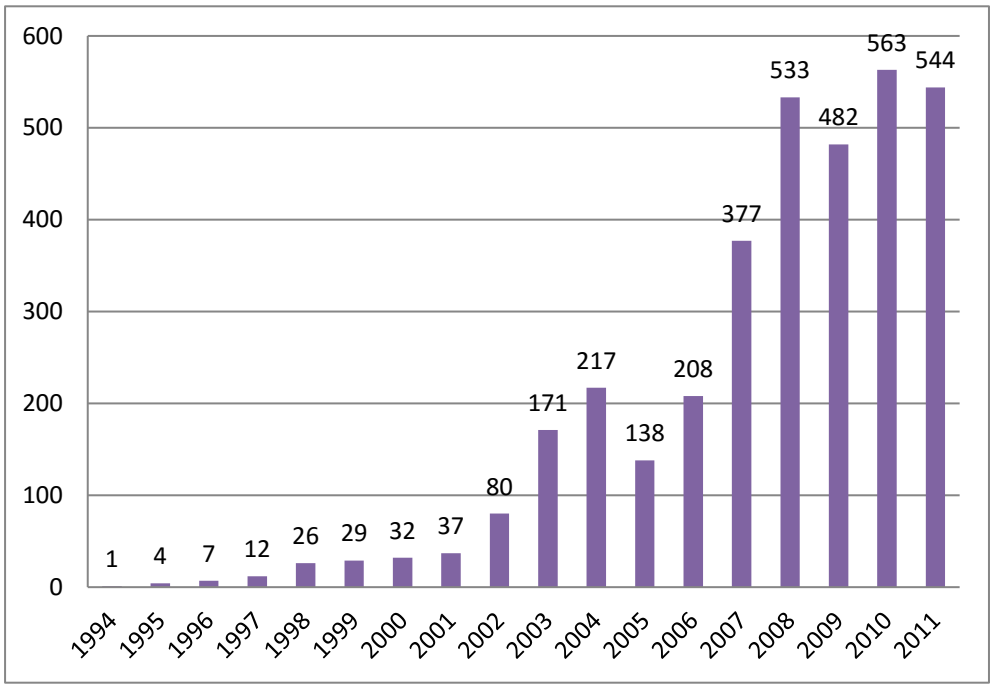


TABLE 8: Chinese Domestic M&As' Target by Industry

This table presents the statistics data of the Chinese domestic M&As target industries. There are totally 3461 deals. In the table below I illustrate the top 10 industries by number of cases and percentage. The industries are classified by the Standard Industrial Classification (SIC) codes.

No.	SCI code	Industry Sector	NO. of Cases	%
1	6500	Real Estate	394	11.38%
2	2800	Chemicals and Allied Products	333	9.62%
3	4900	Electric, Gas and Sanitary Services	238	6.88%
4	3600	Electronic and Other Electric Equipment	225	6.50%
5	7300	Business Service	188	5.43%
6	6700	Holding and other investment	173	5.00%
7	3500	Industrial Machinery and Equipment	148	4.28%
8	3300	Primary Metal Industry	136	3.93%
9	3700	Transportation Equipment	123	3.55%
10	6200	Security and commodity Brokers	110	3.18%
		Other	1393	40.25%
Total			3461	100.00%

TABLE 9: Chinese Domestic M&As' Acquirer by Industry

This table presents the statistics data of the Chinese domestic M&As acquirer industries. There are totally 3461 deals. In the table below I illustrate the top 10 industries by number of cases and percentage. The industries are classified by the Standard Industrial Classification (SIC) codes.

No.	SCI code	Industry Sector	NO. of Cases	%
1	2800	Chemical and Allied Products	427	12.34%
2	3600	Electronic and Other Electric Equipment	281	8.12%
3	6500	Real Estate	262	7.57%
4	4900	Electric, Gas and Sanitary Service	239	6.91%
5	7300	Business Service	204	5.89%
6	3500	Industrial Machinery and Equipment	202	5.84%
7	3300	Primary Metal Industries	184	5.32%
8	3700	Transportation Equipment	145	4.19%
9	3200	Stone, Clay and Glass Products	132	3.81%
10	2000	Food & Kindred Products	119	3.44%
		Other	1266	36.58%
Total			3461	100.00%

FIGURE 4: The average CAR, CAR and AAR of Chinese Domestic M&As

This figure shows the -20 days to + 20 days average abnormal return (AAR), cumulative average abnormal return (CAR) and average CAR of Chinese domestic M&As. The abnormal return is calculated by ARt= Ri-Rm, the cumulative average abnormal return is calculated by CARt=$\sum_{t=0}^{n}$ ARt.

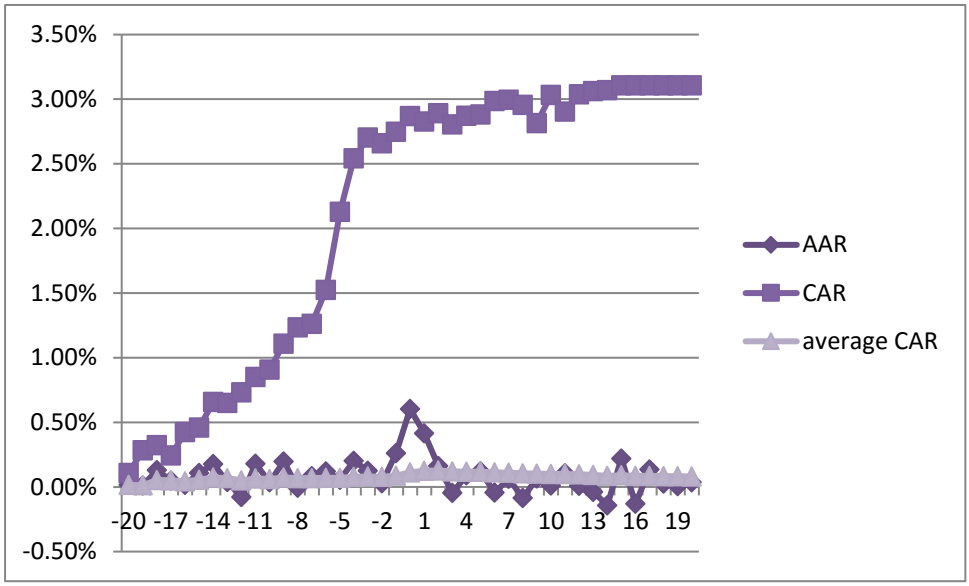


TABLE 10: The T-test of Chinese Domestic M&As CAR

This table contains the t-test of Chinese domestic M&As cumulative short run abnormal return. The time interval of the sample is -20 to +20 days around the announce date. The t values calculate as: $t = \frac{ARt}{\sigma(ARt/\sqrt{n})}$

Variable	Obs	Mean	Std. Err.	Std. Dev.	T-test
(0,1)	3557	0.0109	0.0015	0.0871	7.4409***
(0,3)	3557	0.0127	0.0018	0.1077	7.0487***
(0,5)	3553	0.0152	0.0021	0.1253	7.2215***
(0,7)	3550	0.0158	0.0023	0.1359	6.946***
(0,10)	3542	0.0161	0.0025	0.1507	6.378***
(0,20)	3525	0.0193	0.0029	0.1743	6.5717***
(-1,0)	3557	0.0092	0.0012	0.0726	7.5168***
(-3,0)	3556	0.0106	0.0012	0.0726	8.6879***
(-5,0)	3553	0.0131	0.0014	0.0814	9.626***
(-7,0)	3552	0.0151	0.0015	0.0914	9.8642***
(-10,0)	3552	0.0178	0.0017	0.1015	10.4364***
(-20,0)	3543	0.0249	0.0024	0.1408	10.5428***
(-1,1)	3557	0.0135	0.0016	0.0933	8.6541***
(-3,3)	3556	0.0168	0.0020	0.1212	8.2781***
(-5,5)	3549	0.0219	0.0023	0.1392	9.3571***
(-7,7)	3545	0.0245	0.0026	0.1558	9.3675***
(-10,10)	3537	0.0274	0.0030	0.1759	9.26***
(-20,20)	3511	0.0381	0.0036	0.2159	10.4514***

TABLE 11: The Comparison of Chinese Domestic M&As CAS and BHAR

This table illustrate the Chinese domestic M&As cumulative abnormal return (CAR) and buy and hold abnormal return (BHAR). The time interval of CAR is -10 to + 10 days around the announcement date. The time interval of BHAR is 3 years after the announcement data respectively. The CAR using the formula $CARt=\sum_{t=0}^{n} ARt$. The BHAR using the formula $BHARit= \prod_{t=0}^{T}[1 + Rit] - \prod_{t=0}^{T}[1 + Rmt]$. I classified the returns by different group payment method, acquirer ownership, previous experience, target status, mergers type, final complete status, top 10 target industries. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Group	Subgroup		BHAR1	BHAR2	BHAR3	CAR(0,1)	CAR(0,5)	CAR(0,10)	CAR(-1,0)	CAR(-5,0)	CAR(-10,0)	CAR(-1,+1)	CAR(-5,+5)	CAR(-10,+10)
Payment Method	cash	Mean	4.02%	-5.35%	-14.08%	1.28%	1.30%	1.65%	1.14%	1.34%	1.56%	1.57%	1.79%	2.35%
		P-value	0.0915	0.1758	0.0087***	0***	0***	0***	0***	0***	0***	0***	0***	0***
		N	780	601	386	1082	1081	1077	1082	1082	1081	1082	1081	1076
	stock	Mean	11.47%	21.97%	27.64%	4.05%	8.45%	9.71%	2.17%	2.68%	2.93%	4.25%	9.15%	10.66%
		P-value	0.0005***	0***	0.0005***	0***	0***	0***	0***	0***	0***	0***	0***	0***
		N	294	234	134	370	370	367	370	370	370	370	370	367
	mix	Mean	-6.52%	-0.20%	-23.37%	0.66%	1.61%	1.32%	0.74%	0.73%	1.08%	1.05%	1.98%	2.03%
		P-value	0.1358	0.9754	0.0098***	0.5819	0.2159	0.3575	0.4398	0.1797	0.0697*	0.3861	0.1414	0.1871
		N	262	204	146	319	318	318	319	318	318	319	317	317
Acquirer Ownership	private owned	Mean	3.43%	-0.12%	-3.04%	1.33%	1.89%	1.94%	1.21%	1.44%	1.84%	1.71%	2.51%	2.93%
		P-value	0.0831	0.9653	0.4981	0***	0***	0***	0***	0***	0***	0***	0***	0***
		N	1265	1003	689	1761	1757	1750	1761	1759	1758	1761	1755	1747
	SOE owned	Mean	4.40%	3.48%	-6.75%	0.85%	1.15%	1.30%	0.62%	1.19%	1.72%	1.00%	1.87%	2.55%
		P-value	0.0012**	0.1001	0.033**	0***	0***	0***	0***	0***	0***	0***	0***	0***
		N	1429	1151	844	1796	1796	1792	1796	1794	1794	1796	1794	1790
Previous Experienc	experienced	Mean	6.91%	6.83%	4.69%	1.13%	1.32%	1.27%	1.00%	1.45%	1.89%	1.37%	2.02%	2.39%
		P-value	0***	0.0033***	0.2335	0***	0***	0***	0***	0***	0***	0***	0***	0***

e		N	1346	998	638	1841	1840	1831	1841	1840	1840	1841	1839	1830
		Mean	0.98%	-2.54%	-12.05%	1.05%	1.73%	1.99%	0.82%	1.16%	1.66%	1.34%	2.37%	3.11%
	1stmerge	P-value	0.5839	0.3113	0.0008***	0.0001***	0***	0***	0.0002***	0***	0***	0***	0***	0***
		N	1348	1156	895	1716	1713	1711	1716	1713	1712	1716	1710	1707
		Mean	9.79%	3.73%	-15.01%	2.64%	3.83%	4.86%	1.77%	0.45%	0.15%	2.80%	2.68%	3.41%
	target public	P-value	0.0724*	0.5463	0.0708*	0***	0***	0***	0***	0.471	0.8427	0***	0.0012***	0.0022***
Target		N	257	243	125	343	343	343	343	343	343	343	343	343
Status		Mean	3.33%	1.56%	-4.20%	0.92%	1.27%	1.27%	0.82%	1.41%	1.95%	1.20%	2.13%	2.67%
	target private	P-value	0.0042***	0.3812	0.1343	0***	0***	0***	0***	0***	0***	0***	0***	0***
		N	2437	1911	1408	3214	3210	3199	3214	3210	3209	3214	3206	3194
		Mean	3.43%	-0.55%	-5.06%	1.09%	1.83%	1.95%	0.87%	1.58%	2.14%	1.25%	2.69%	3.38%
	conglomerate	P-value	0.0259**	0.8062	0.1766	0***	0***	0***	0***	0***	0***	0***	0***	0***
Mergers		N	1425	1135	823	1850	1848	1844	1850	1849	1848	1850	1847	1842
Type		Mean	4.53%	4.42%	-5.11%	1.08%	1.18%	1.25%	0.96%	1.03%	1.38%	1.47%	1.63%	2.04%
	vertical/horizon	P-value	0.0117**	0.0963*	0.1764	0***	0***	0.0001***	0***	0***	0***	0***	0***	0
		N	1269	1019	710	1707	1705	1698	1707	1704	1704	1707	1702	1695
		Mean	4.43%	4.34%	-4.65%	1.03%	1.46%	1.50%	0.81%	1.19%	1.65%	1.31%	2.11%	2.60%
	uncompleted	P-value	0.0019***	0.0457**	0.1725	0***	0***	0***	0***	0***	0***	0***	0***	0***
Final		N	1758	1354	921	2423	2420	2410	2423	2419	2419	2423	2416	2406
Status		Mean	3.04%	-2.49%	-5.73%	1.20%	1.65%	1.86%	1.13%	1.59%	2.06%	1.45%	2.36%	3.03%
	completed	P-value	0.1408	0.3799	0.1797	0.0006***	0.0002***	0.0003***	0***	0***	0***	0.0001***	0***	0***
		N	936	800	612	1134	1133	1132	1134	1134	1133	1134	1133	1131
		Mean	5.14%	5.20%	9.08%	1.44%	2.16%	2.83%	1.00%	2.45%	2.07%	1.53%	2.45%	4.01%
Top10	Real Estate	P-value	0.0651*	0.1372	0.2018	0***	0.0002***	0.0002***	0.0001***	0.0001***	0***	0***	0.0001***	0***
Target		N	356	287	193	421	421	421	421	421	421	421	421	421
Industry	Chemicals&Allied	Mean	6.31%	0.96%	-7.15%	1.07%	1.39%	0.96%	0.88%	1.51%	2.41%	1.35%	2.30%	2.79%

	Products	P-value	0.1262	0.8734	0.4009	0.0004***	0.0264**	0.1982	0.0004***	0.0001***	0***	0.0001***	0.0012***	0.0017***
		N	235	189	149	343	343	340	343	343	343	343	343	340
	Electric, Gas and Sanitary Service	Mean	-1.02%	-10.43%	-33.32%	0.84%	0.76%	-0.02%	0.86%	0.68%	1.23%	1.38%	1.12%	0.88%
		P-value	0.7141	0.0224***	0***	0.0385**	0.1537	0.9723	0.0086**	0.1004	0.0267**	0.0053***	0.0987*	0.2784
		N	200	172	119	242	242 1	242	242	242	242	242	242	242
	Electronic&OtherElectric	Mean	6.18%	6.75%	-3.38%	1.18%	1.47%	2.03%	0.96%	0.73%	0.25%	1.37%	1.44%	1.51%
		P-value	0.1869	0.4521	0.8269	0.0519*	0.07648	0.06098	0.035988	0.2655	0.7549	0.024388	0.1265	0.2209
		N	166	132	91	232	232	232	232	232	232	232	232	232
	Business Service	Mean	-7.43%	-7.71%	-39.20%	2.09%	1.61%	0.73%	2.00%	0.46%	-0.51%	2.38%	0.35%	-1.70%
		P-value	0.3631	0.4935	0.0021***	0.0002***	0.0248**	0.3981	0.0121**	0.6385	0.6427	0.004**	0.7423	0.2212
		N	129	102	64	195	193	191	195	194	194	195	192	190
	Holding&other investment	Mean	-10.47%	0.97%	-20.41%	-0.53%	-0.02%	0.27%	1.17%	1.46%	2.84%	-0.24%	0.57%	2.19%
		P-value	0.0633*	0.8908	0.0372**	0.7643	0.9901	0.8942	0.0003***	0.0035***	0***	0.8942	0.7619	0.2777
		N	146	118	76	186	186	185	186	186	185	186	186	184
	Industrial Machinery and Equipment	Mean	15.69%	11.79%	10.09%	1.57%	2.67%	2.03%	1.32%	2.49%	2.98%	1.93%	4.19%	4.05%
		P-value	0.0222**	0.1686	0.4308	0.0049***	0.0065***	0.0711*	0.001***	0***	0.001***	0.001***	0***	0.0008***
		N	99	80	65	150	149	147	150	150	150	150	149	147
	Primary Metal Industry	Mean	5.38%	-7.00%	-8.29%	0.85%	-0.31%	-1.04%	0.61%	1.50%	1.58%	0.81%	0.53%	-0.06%
		P-value	0.4129	0.144	0.3618	0.0669*	0.7031	0.3358	0.0000***	0.0000***	0.0000***	0.0944	0.6009	0.9645
		N	99	82	57	135	135	133	135	135	135	135	135	133
	Transportation Equipment	Mean	7.08%	7.08%	-19.54%	0.70%	0.50%	1.21%	0.01%	-0.26%	0.75%	0.76%	0.29%	2.02%
		P-value	13.54%	38.03%	0.0000***	34.05%	69.18%	39.63%	98.92%	72.04%	41.74%	34.11%	81.69%	16.41%
		N	98	79	63	123	123	123	123	123	123	123	123	123
	Security and commodity Brokers	Mean	20.27%	20.78%	52.34%	1.15%	2.56%	3.60%	0.46%	1.38%	1.12%	1.11%	3.44%	4.22%
		P-value	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.2568	0.0000***	0.1621	0.0000***	0.0000***	0.0000***

	N	95	81	64	113	113	113	113	113	113	113	113	113
	Mean	3.94%	1.80%	-5.08%	1.09%	1.52%	1.61%	0.92%	1.31%	1.78%	1.35%	2.19%	2.74%
Average	P-value	0.0000***	0.2959	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***
	N	2694	2154	1533	3557	3553	3542	3557	3553	3552	3557	3549	3537

TABLE 12: The Multivariate Analysis of Short Run Factors for Chinese Domestic M&As

This table presents the results for the multivariate analysis of the short run factors for Chinese domestic M&As. The model regress the different time interval CARs from -10 to +10 days around the data of deal announcement. The model include a dummy which takes the value of one if the deal was conglomerate mergers(CONGLOMERATE); if deal was the public listed target (PUBLIC TARGET); if deal was state owned enterprises acquirers (SOE ACQUIRER); if acquirer do not have mergers experience (NON EXPERIENCE); if deal was finally report complete (COMPLETE); if the deal was financed using 100% cash (CASH).The model also include Tobin Q ratio, Market Capitalization, Market to Book value, Financial leverage, Trailing 1 year BHAR, Trailing 1 year market return, Trailing 1 year CAR as dependent variable. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Variable	CAR(-1,+1)		CAR(-5,+5)		CAR(-1,0)		CAR(-5,0)	
	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value
TOBIN Q	0.0000151	0****	-0.0000125	0.023**	0.0000036	0.116	0.00000179	0.602
MCAP	2.65E-10	0.269	3.62E-10	0.402	3.2E-10	0.076*	4.53E-10	0.094*
MTBV	0.000000136	0.07	0.000000271	0.044**	7.93E-08	0.159	0.000000103	0.22
MV	-2.39E-07	0.246	-3.41E-07	0.358	-2.51E-07	0.105	-3.56E-07	0.125
LEVERAGE	-0.005736	0***	0.0037172	0.046**	-0.0012827	0.098	-0.0008552	0.462
TRAILING BHAR	0.0003847	0.892	-0.0069953	0.17	0.0022171	0.297	0.0047164	0.138
TRAILING RETURN	0.0010749	0.604	-0.0036648	0.326	-0.0009473	0.543	-0.0026836	0.25
TRALING CAR	-0.0053104	0.238	0.0095615	0.238	-0.0068393	0.043**	0.0000659	0.99
CONGLOMERATE	-0.0020213	0.456	0.0084956	0.082*	-0.0031881	0.117	0.0007545	0.805
PUBLIC TARGET	0.0135314	0.007***	0.0163363	0.068*	0.0055484	0.138	-0.0071252	0.203
SOE ACQUIRER	-0.0057318	0.034	-0.0062623	0.199	-0.004744	0.02**	-0.0055293	0.069*
NON EXPERIENCE	-0.0026444	0.327	0.0002401	0.961	-0.0033269	0.101	-0.0008023	0.792
COMPLETE	0.0029847	0.293	-0.0010625	0.835	0.0025593	0.23	0.002677	0.402
CASH	0.0025159	0.43	0.007967	0.166	0.0027992	0.243	0.0089723	0.013**
STOCK	0.0445197	0***	0.0882533	0***	0.0201757	0***	0.021473	0***
MIX	0.015974	0.001***	0.0148314	0.076*	0.010515	0.003***	-0.0000574	0.991
_cons	0.0126824	0.004	0.0082397	0.292	0.0116237	0	0.0134442	0.006
Number of obs	2450		2450		2450		2450	
F Value	10.19		12.26		3.89		2.37	
R-squared	6.28%		7.46%		2.49%		1.53%	
Adj R-squared	5.66%		6.85%		1.85%		0.88%	

TABLE 13: The Multivariate Analysis of Long Run Factors for Chinese Domestic M&As

This table presents the results for the multivariate analysis of the long run factors for Chinese domestic M&As. The model regress the different time interval BHARs from +1 to +3 years after the deal announcement. The model include a dummy which takes the value of one if the deal was conglomerate mergers(CONGLOMERATE); if deal was the public listed target (PUBLIC TARGET); if deal was state owned enterprises acquirers (SOE ACQUIRER); if acquirer do not have mergers experience (NON EXPERIENCE); if deal was finally report complete (COMPLETE); if the deal was financed using 100% cash (CASH).The model also include Tobin Q ratio, Market Capitalization, Market to Book value, Financial leverage, Trailing 1 year BHAR, Trailing 1 year market return, Trailing 1 year CAR as dependent variable. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Variable	BHAR1		BHAR2		BHAR3	
	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value
TOBIN Q	0.0000512	0.065*	0.0000371	0.368	0.0143682	0.396
MCAP	3.2E-09	0.141	7.39E-09	0.109	2.92E-09	0.703
MTBV	-0.00000047	0.486	0.0042302	0.034*	-0.0023201	0.523
MV	-0.0000032	0.086*	-6.40E-06	0.087	-2.18E-06	0.783
LEVERAGE	-0.0233401	0.013**	-0.0051502	0.691	-0.0062601	0.846
TRAILING BHAR	-0.0506316	0.077	-0.1306015	0.002***	-0.2087691	0.001***
TRAILING RETURN	0.0521043	0.006***	-0.0074768	0.777	0.1833033	0***
TRALING CAR	0.0455726	0.309	0.1465485	0.023**	0.4029573	0.001***
CONGLOMERATE	-0.022368	0.376	-0.0524393	0.174	-0.0257498	0.665
PUBLIC TARGET	0.100604	0.028**	0.0817328	0.214	-0.0066238	0.953
SOE ACQUIRER	-0.0310885	0.218	-0.0030129	0.937	-0.0855403	0.153
NON EXPERIENCE	-0.0374613	0.136	-0.0813094	0.034**	-0.0899902	0.14
COMPLETE	-0.0210033	0.424	-0.0846731	0.031**	-0.0309868	0.607
CASH	-0.0057901	0.846	-0.0968056	0.036**	-0.1142367	0.11
STOCK	0.1165766	0.006***	0.2485097	0***	0.2506165	0.019**
MIX	-0.032273	0.457	0.0735492	0.272	-0.1333184	0.201
_cons	0.0413502	0.309	0.108013	0.078	-0.1669698	0.098
Number of obs	2290		1834		1303	
F Value	2.65		3.44		4.08	
R-squared	1.83%		2.94%		4.83%	
Adj R-squared	1.14%		2.08%		3.64%	

CHAPTER 4 FOREIGN M&As IN CHINA

4.1 Descriptive Statistics

During 1990 to 2011, as the Chinese economy played an increasingly important role in the global market, the number of foreign investors paying close attention to the Chinese capital market also increased. The frequency of foreign acquisitions of Chinese targets increased considerably, with 1433 such deals occurring in the sample period. I divided the sample period into four stages and applied the same classification used in previous chapters: seed stage, pioneer stage, growth stage and boom stage. As the Figure 5 illustrated:

The seed stage lasted from 1990 to 1995. During the early 1990s, a more open Chinese government started to welcome foreign direct investment. Nevertheless, due to the incompleteness of Chinese investment environments and unstable market conditions, investing in China was still considered high risk. As discussed in the previous chapters, there were only 55 mergers during this 5-year period. However, the small number of mergers opened the door to more M&As in the near future because more foreign investors started to realize the potential of China's economy. They became more optimistic about China's future and their confidence level soared. The seed stage established a valuable base for the next few stages. Also during this time, the Chinese capital market started its initial growth. China's stock exchange and interbank market attracted attention from both domestic and foreign investors. More importantly, government policy and regulation had become friendlier in terms of foreign direct investment. M&A activities were the clear beneficiary of capital market reform.

The pioneer stage spanned 1996 to 2000.The Chinese economy had maintained its high growth rate, as expected, and early foreign investors in the emerging Chinese

market earned high profits. The success of these early pioneers motivated followers from all over the world to invest in the Chinese market. Although the Chinese government still placed numerous restrictions on foreign investors, thousands of foreign companies and institutions strove to meet the qualifications necessary to participate in the Chinese market. Because M&As were one of the quickest ways to achieve this goal and were very familiar to most foreign entities, the number of M&A deals skyrocketed during these five years. As many as 245 transactions were undertaken between 1996 and 2000. Although this number is relatively small, it represents a five-fold increase over the seed stage.

The third stage is the growth stage, which lasted from 2001 to 2005. As mentioned earlier, China joined the World Trade Organization in 2000 and relaxed certain restrictions on foreign investment, as required by WTO. Since the beginning of the 21st century, the Chinese market has become more global than ever before. Trade and communication between China and rest of the world increased tremendously as Chinese firms entered into myriad cooperative contracts with firms from numerous countries. The capital market was perceived as one of the most attractive cooperation tools by foreign firms. Hundreds of companies officially entered China to seek M&A opportunities, and 375 transactions were conducted in this five-year period. The primary targets were companies in the financial industry due to the relaxation of government restrictions.

The fourth stage began in 2006 when the Chinese economy reached the next level. From 2006 to 2010, China's economic miracle continued, and foreign investments benefitted significantly from the flourishing business environment. Trade exports and imports to China gave the Chinese market a huge budget surplus. Due to the open environment and cheap currency, China became the world's factory, assembling millions of types of products and shipping them overseas. Foreign companies' need to acquire control of domestic businesses had risen significantly during this five-year interval. The number of M&As had increased until 2009, when

the world fell into an economic recession. Foreign businesses were damaged more severely than Chinese domestic companies, causing foreign investments to plunge. Both confidence and liquidity had reached disappointingly low levels. Although there were 181 M&A transactions in 2007, the number decreased to 111 in the following year, which shows the extent to which the lack of foreign participation hurt the Chinese M&A market. Although M&A activity resumed its upward trend after 2009, successful transactions failed to reach the 2007 level.

As Table 14 illustrates, the most frequent target industry was the business services industry, which accounted for 126 deals, or 8.78% of the total number of mergers. Two-thirds of these deals involved SIC codes from 7371 to 7376, which indicate businesses related to information technology. These data indicate that foreign investors were very interested in China's IT sector and believed that this industry could play a leading role in China's emerging market. Western experience shows that technology usually plays a leading role in fast-growing business environments. Foreign investors expected the same experience in China because information technology could not be more essential in this internet-blanketed world. The second largest target area was the electronic and other electrical equipment industry which accounted for 108 mergers, or 7.53% of this sample group. Because electronic devices and related products are usually labour intensive, the cheap labour force in China was one of the country's most attractive assets. Large numbers of Chinese workers left their suburban villages and migrated to big cities where more labour was needed. The huge size of China's labour force made its labour market significantly less expensive than those in the Western countries where corporations had their headquarters. Thus, a great deal of companies—especially those with labour-intensive products—set their sights on China and sought the best manufacturer to meet their needs. Many M&As occurred under these conditions. For instance, Matsushita (Panasonic) group acquired several manufacturing companies in China several years ago and moved their production line to China as well. The third largest target industry was the chemicals and allied products industry, which had a

6.48% share, and the fourth largest target industry was food and kindred products, which accounted for 6.41%. These two industries benefitted not only from the rapid growth of Chinese economy but also from the large population in China, whose purchasing power increased with their income. Goods including medical supplies, food and other rapidly consumed goods pushed the supply curve that stimulates production. The fifth and six largest target industries were the real estate industry and holding and other investment offices, respectively, which accounted for 6.20% and 5.71%, respectively. Increased foreign investment in the real estate and rental market was due to two reasons. First, as mentioned previously, housing prices in China had risen tremendously during the economic boom. Housing prices increased by more than five times in major metropolises across mainland China. Leasing prices ascended as quickly as housing prices, which further stimulated the real estate market. Historical data show that investment in real estate grew at a 10% annual compounded rate. Second, RMB, the official Chinese currency, had appreciated more than 30% during the previous 10 years. Hot money flowed into the Chinese market and purchased large amounts of fixed assets, such as real estate. Purchasers believed assets in China had a great uptrend potential due to its strong currency and economic outlook. The electric, gas, and sanitary services industry, transportation equipment industry, primary metal industry, and machinery industry also ranked among the top ten target industries. These sectors were the main beneficiaries of increased purchasing power and domestic aggregate demand. M&A activities always increase with the strong performance of the real sector.

A review of Table 15 reveals that the top ten acquirer industries are the same as the top ten target industries listed in Table 14, differing only in terms of ranking. Holding and other investment offices was the top acquirer industry, with 9.06%; electronic and other electrical equipment was second with 7.53%; and the business services industry had a 7.46% share. Other top ten industries included chemicals and allied products; real estate; industrial and commercial machinery; food and kindred products; primary metal industries; electric, gas, and sanitary services; and

transportation equipment industries. Horizontal and vertical M&As represent the majority of transactions. The motivations of foreign acquirers to seek opportunities in China are obvious. Foreign investors not only want the cheap labour force but also need a share of this emerging market to further expand their businesses. Many foreign acquirers moved their production lines to China along with their expansion plans, and most of them have also established research and development operations in China to generate the best ideas to exploit the Chinese consumer market. In contrast to the 1990s, foreign companies now recognized the unbelievable domestic demand of China. They started to treat China as their biggest client rather than merely a manufacturing asset. For instance, luxury car brands such as BMW and Land Rover experienced double-digit growth in China over a long period of time. Accordingly, they began to design features that interested Chinese drivers instead of simply duplicating their European models. The same reasons apply to all industries listed in the table. Foreign companies believe that Chinese targets have the best understanding of what Chinese consumers really need. Post-merger, foreign companies could officially use target resources to implement strategic plans. China passed Japan to become the second largest economy in the world, and no company wants to abandon this amazing land and its myriad opportunities.

Of 1435 transactions, data regarding payment method were available for only 693 deals; payment data for remaining cases were unknown or incomplete. Based on the available data, I determined that most foreign buyers prefer cash payments rather than stock. Specifically, 309 (44.59%) acquirers used cash, whereas 232 mergers (33.48%) were paid by mixed cash and stock. Pure stock payments were used in only 152 cases (21.9%). The relatively low number of stock purchases indicates that foreign buyers were very confident about the potential synergies created by these M&A transactions and were disinclined to share these gains with the targets. Foreign buyers also wanted a controlling share in Chinese targets, and cash payment is a good approach for accomplishing that objective. The cash payment method allowed most foreign acquirers to easily achieve their goals, which included production line

expansion and access to business channels. In addition, the Chinese capital market was not yet sophisticated enough to enable stock payment in all cases. Strict government rules and regulations tended to provide a greater level of protection to domestic companies.

Although I use the M&A announcement as the trigger event, I also analyse the final merger status and include the final status as a dummy variable in the factors analysis. Of 1435 total merger announcements, 813 transactions (56.66%) were ultimately reported as completed, 529 deals (36.86%) were reported as pending, 67 transactions (4.67%) were ultimately withdrawn, the status of 22 transactions (1.53%) was unknown, and 4 deals (0.28) were reported as intended. In sum, most announced deals were ultimately completed.

M&A performance is significantly impacted by the share of the target ultimately held by the acquirer. I divided acquirer ownership into three groups according to percentage ownership. Our classification is based on accounting standards; if the acquirer owns more than one-half of the stock after the merger, it has complete control of the target; if the acquirer owns less than 50% but more than 20% of the target, I say that the buyer has significant influence over the target; and if the acquirer owns less than 20% of the target, I treat it as a financial investment. Of 1435 deals, 638 transactions were unknown, withdrawn or reported as intended and therefore I do not know the final stock ownership in these cases. Of the remaining 797 deals, 530 acquirers (66.5%) obtained a controlling share in the target firm, 157 acquirers (19.7%) gained a significant influence over the target; and 110 deals (13.8%) were considered financial investments. The result confirmed, most buyers want control of the target firm.

Table 16 shows the home countries of the buyers. Hong Kong was the home base of the largest number of acquiring firms; over the past 20 years, Hong Kong firms conducted 550 deals in China, or 38.33% of all M&A transactions. The country with

the second largest number of acquiring firms was the U.S., which accounted for 227 foreign acquirers, or 15.83%. The third largest group of buyers were based in Singapore, accounting for 106 mergers, or 7.39%.The remaining buyers were mostly from Japan, which had 89 deals (6.2%); South Korea, which had 68 buyers (4.74%); Canada, which had 61 buyers (4.25%); UK, which had 59 deals (4.11%); Taiwan which had 47 deals (3.28%); Australia which had 45 transactions (3.14%); and Malaysia, which had 24 transactions (1.67%). Other countries accounted for 159 transactions in total, for a combined share of 11.08%. The table is a little confusing and warrants an explanation. First, as I discussed in Chapter 2, due to the "one country, two forms" policy, Taiwan, Hongkong and Macau have completely different laws, policies and business environments with China main land. Therefore, I followed with previous research, take these three areas as foreign acquirer. However, due to their close relationships with China, Hong Kong and Taiwan are two of the biggest beneficiaries among countries that do business with mainland China. They have geographical advantages and are on relatively friendly terms with the Chinese government. In addition, these regions share similar cultural characteristics with China. They speak Mandarin or Cantonese, have the same family base, and share common business traditions. Therefore, it is not difficult to understand why Hong Kong and Taiwan firms tend to have harmonious business partnerships with Chinese firms. In addition to Hong Kong and Taiwan, many other Asian countries, such as South Korea, Singapore and Japan, also benefit from their geographic locations and cultural similarities with China, although the friendship is not as close. Countries such as the U.S. and U.K. have developed business entities, which translates into more capital and more multinational enterprises with the power to explore new markets.

Although this project analysed foreign acquirers' M&A activities in China, I must acknowledge that some of these deals are considered domestic mergers. In fact, a large number of Chinese enterprises set up subsidiary companies in regions such as Hong Kong, Singapore, United States, United Kingdom, British Virgin Islands, and

Cayman Islands. The reasons for establishing a subsidiary firm overseas vary on a case-by-case basis. Primary justifications include globalization strategies, tax purposes, domestic regulatory concerns and foreign exchange control. In these cases, the acquirers are registered in foreign countries but their ultimate parent companies are Chinese. There are 219 deals that involve ultimate parent companies in China, which accounts for 15.26% of all cases. I did not neglect this fact in the factors analysis.

I define an experienced buyer as one that has completed more than one merger. Of 1435 transactions, 711 involved an experienced acquirer, representing 49.55%. As certain massive companies try to further increase their power, the number of repeat buyers will definitely increase. Especially in the newly emerged market in Asia, a large number of repeat buyers should begin to appear in the foreseeable future. A company may even plan to purchase multiple firms simultaneously.

To conclude, foreign M&A shave increased significantly in China in recent years. The most popular target industries were the business services, electronics, and chemical industries, due to China's booming economy and increased domestic demand. The top acquirer industries were holding and other investment offices, real estate, electronics, chemicals, and business services, as a result of the Chinese real estate bubble and prosperous business environment. The predominant merger type is horizontal/vertical. Most buyers prefer cash payments and they want to acquire a controlling share in the target. Hong Kong, the United States, Singapore and Japan are among the top buyers in China due to their relatively close economic relationships. Similar cultures and geographic advantages enable certain Asian countries to participate in a significant number of M&As in mainland China. One-half of the cross-border buyers were experienced buyers.

4.2 Short- and long-term abnormal return analysis

4.2.1 Short-term Analysis

I analysed the short-term return by calculating acquirer abnormal return 40 working days around the M&A announcement day. The AAR, CAR and average CAR are shown in Figure 6.

The pre- and post-announcement abnormal returns are more mixed than those of Chinese buyers that acquire domestic or foreign firms. Before the trigger event, the -1, -2, -4,-12,-17,-18 and -19 day returns are negative, ranging from -0.51% to -0.03%. Other days show a positive return, ranging from 0.83% to 0.06%. On the announcement day, the abnormal return is 0.37%. After the announcement day, +1, +5, +12, +13, +17, +18 and +20 days show negative abnormal returns ranging from -0.02% to -0.66%. The remaining days show a positive abnormal return ranging from 0.12% to 0.75%. These results differ significantly from those of Chinese buyers, which generally show positive returns around the announcement day. The explanation is that most foreign buyers are listed on the US, Hong Kong or Singapore stock exchanges. Traditionally, Western investors believe that M&A activity will reduce acquirer value and that the acquirer will underperform after the merger. Therefore, when news of a merger is released, investors tend to sell the acquirer's stock and buy the target's stock, which cause the acquirer's stock price to decline. In our sample, as previously mentioned, some acquirers are ultimately foreign and some have ultimate Chinese parents, which explain the mixed results.

The cumulative abnormal returns are significant during the announcement period. As Table 17 illustrates, the largest CAR yield is earned by holding the stock between -10 to +10 days, a 20-day interval, which yields a 3.35% abnormal return. Before the trigger event, -15 days, the abnormal return increases gradually. Even after news of the merger is released, investors can earn a significant return ranging from 1.17% to 1.81% in the 0 to 10 day interval. Fifteen days after the announcement, the abnormal

return turns negative and insignificant. These results indicate that when news of the merger is released to the public, most of the market reacts as if this is good news and the stock price increases. After the market absorbs the news, the stock price returns to its normal level.

I also classify the short-term CAR by payment method, previous acquirer experience, target status, merger type, final completion status, whether the ultimate parent of the acquirer is a Chinese firm, and target industry. The short-term abnormal return is significantly different for different characteristics, as Table 18 shows.

Different payment methods significantly affect the short-term abnormal return. Stock payment yields the highest short-term return; in the -1 to +1, -5 to +5 and -10 to +10 time intervals, stock payment yields cumulative abnormal returns of 3.82%, 9.66% and 12.39%, respectively. Other time intervals also yield significant abnormal returns. The mixed payment method yields moderate returns (4.82%, 7.08% and 9.37%, respectively, for the time intervals mentioned above) and passes the 99% confidence t test. Cash payment yields the lowest return; in the -1 to +1 day interval, cash achieves a mere 1.72% abnormal return. In the -5 to +5 and -10 to +10 day intervals, cash yields returns of 1.21% and 0.35%, respectively. However, the t test for these two intervals is insignificant. These results differ from those of Chinese domestic buyers, for which cash payment yields the highest short-term return. This result implies that investors in foreign stock markets believe that a cash payment will reduce acquirer value and that a large cash payment may lead to a heavy interest burden in the future. Therefore, the acquirer's stock price declines after a merger announcement. In contrast, an acquirer that pays with stock does not need to use cash to merge with the target, and after the merger, if the acquirer obtains a controlling share, the target's financial statement can be consolidated with that of the acquirer, which may lead to an increase in the firm's book value, sales, etc.

Previous merger experience also yields different short-term abnormal returns. In the

-1 to +1, -5 to +5 and -10 to +10 day time intervals, experienced acquirers earn 3.46%, 5.07% and 7.82% cumulative abnormal returns, respectively, whereas first-time buyers earn returns of 2.85%, 3.78% and 3.92%, respectively. These results indicate that investors have more confidence in experienced buyers, which have more experience and the management skills necessary to integrate the acquirer and target.

Target listing status has little effect on short-term return. For the -1 to +1, -5 to +5 and -10 to +10 day intervals, the acquisition of a private firm generates 2.35%, 3.01% and 3.38% short-term abnormal returns, respectively, whereas the acquisition of a publicly listed target generates 1.67%, 2.02% and 2.75% returns, respectively. With the exception of the -10 to +10 day interval for the acquisition of a publicly listed target, all time intervals pass the t test. These results mean that the acquirer of a publicly listed target pays more than the acquirer of a private target because the public target's stock is more liquid or because publicly listed firms generally have better operations and management than private firms. Overpayment for the public firm causes stock investors to reduce their estimation of the acquirer's future performance.

Merger type also impacts short-term abnormal return. The short-term return will be higher and more significant for a horizontal or vertical merger, in which the acquirer and target are in the same industry, than for a conglomerate merger. In our sample, in the -1 to +1, -5 to +5 and -10 to +10 day time intervals, the horizontal and vertical merger group yields abnormal returns of 2.76%, 4.46% and 5.08%, respectively, and the conglomerate merger group yields 2.86%, 0.44% and -0.16% abnormal returns, respectively; however, only the -1 to +1 day interval is statistically significant. These results are consistent with the notion that experienced buyers yield higher returns because investors have more confidence in acquirers that merge with targets in the same industry. The typical acquirer objectives of horizontal and vertical mergers are to increase market share, acquire distribution channels, extend the value chain, or

merely increase economic scale, all of which indicate that acquirer has a promising future. However, a conglomerate merger in which an acquirer enters an industry completely unrelated to its own may indicate that the acquirer aims to diversify its business risk or that its business is moving into the mature phase and faces future decline.

Whether the ultimate parent of the acquirer is a Chinese firm does not significantly affect short-term abnormal return. Acquirers with ultimate Chinese parents earn 1.67%, 2.53 and 3.39% short-term abnormal returns in the -1 to +1, -5 to +5 and -10 to +10 day time intervals, respectively. True foreign acquirers earn abnormal returns of 2.44%, 3.04 and 3.34%, in the same intervals. Returns for all time intervals are positive and pass the t test at a 99% confidence level.

The target industry significantly affects short-term returns. The highest short-term return is earned by acquisitions of firms in the industrial and commercial machine industry, which earn a 4.82% abnormal return in the -1 to +1 day time interval. Targets in the food and kindred products industry yield returns of 4.44% and 5.2% for the -1 to +1 and -5 to +5 day intervals, respectively. Targets in the electronic and other electrical equipment industry, chemicals and allied products industry, and electric, gas, and sanitary services industry also yield significant positive returns. In contrast, the real estate industry and holding and other investment offices industry yield relatively low and insignificant short-term returns, which implies that investors do not expect buyers of firms in the Chinese real estate industry to earn significant future profits or that investors believe the acquirer overpaid for the target.

4.2.2 Long-term Analysis

For the long-term abnormal return analysis, I apply the buy-and-hold abnormal return method, using monthly returns and the market index to calculate post-merger returns in the first three years. The results suggest that acquirers lose after merger announcements. Post-merger, acquirer stock experiences average declines of

-14.54%, -24.05% and -29.18% in the next three years, with a 99% confidence level. These results are consistent with previous studies by Kitching (1974), Rostand (1994), Sirower (1994), Denis and Sarin (1997), and Agrawal and Jaffe (2000). Generally speaking, acquirers suffer losses due to overpayment for the target or the failure to integrate the target firm.

As in the short-term analysis, different merger characteristics significantly affect long-term abnormal returns. As before, I use payment method, previous merger experience, target status, merger type, final completion status, ultimate parent of the acquirer, and target industry as criteria to compare differences in post-merger long term abnormal returns.

Payment method significantly affects long-term return. Acquirers using the mixed payment method suffer the greatest loss; after the merger announcement, abnormal returns for the next three years are -36.36%, -50.15% and -53.26%. Cash payments also yield large negative returns of -3.87%, -9.62% and -28.17% with a 99% confidence level. Stock payments earn lower negative returns, yielding -28.07%, -41.66% and -54.31% in the first three years. In addition, the first-year loss for the cash payment method is statistically insignificant. Rhodes-Kropf et al. (2005) found that acquirers using stock are more overvalued than those using cash.

From the long-term perspective, the experienced buyer loses more than the non-experienced buyer. Specifically, the experienced buyer suffers losses of -43.95%, -51.82% and -59.27% for the first three post-merger years, whereas the non-experienced buyer loses -16.68%, -31.75% and -37.72% in the same timeframes. All buy-and-hold returns pass the significance test at a 99.99% confidence interval. These results do not mean that experienced buyers lose more than non-experienced buyers but that repeat buyers suffer from losses due to multiple mergers. The acquirer overpays for the target in each merger, which creates a heavy cumulative financial burden; therefore, the buyer of multiple targets will show a greater loss

than the single-target buyer.

Target listing status has an impact on long-term return. Acquirers of public targets earn 1.55%, -17.66% and -33.87% abnormal returns in the first three years, but returns are statistically significant only for year two and year three. Acquirers of private targets earn long term returns of -15.5%, -24.44% and -28.86%. These results may imply that acquirers of private targets usually overpay to a greater extent than acquirers of publicly listed targets. Because a public target is listed on an exchange board, price estimation and corporate operations are relatively more transparent than for a private target. In addition, corporate governance of public firms is usually perceived as being better than that of private firms; therefore, the post-merger cultural fit will facilitate the creation of synergistic value.

Conglomerate mergers lose more than same-industry mergers in the long run. Specifically, conglomerate mergers lose -20.78%, -31.71% and -37.97% in the first three years, whereas vertical and horizontal mergers suffer losses of -10.95%, -18.02% and -19.46%. These results are consistent with the classical theory, which maintains that same-industry acquirers are usually aiming to increase their business scope, extend their value chains or achieve economies of scale. Moreover, the buyer is familiar with the target because they operate in the same industry and integration of the firms is smoother, which facilitates the creation of synergistic value.

Acquirers that report completed mergers lose more than acquirers that report pending, suspended or withdrawn mergers. Acquirers that report completed mergers yield -21.03%, -36.43% and -44.34% long-term abnormal returns in the first three post-merger years. Acquirers reporting uncompleted mergers earn -13.6%, -20.03% and -24.17% long-term returns. These results show that successful mergers have a negative impact on buyers.

Regarding the acquirer’s ultimate parent, acquirers with ultimate Chinese parents

lose less than truly foreign acquirers. Specifically, foreign acquirers with ultimate Chinese parents earn negative returns of -8.54%, -16.75% and -20.58% in the next three years, whereas truly foreign firms suffer losses of -15.47%, -25.5% and -30.96% in the same time periods. The reason for this difference is that the Chinese buyer is more familiar with the culture of the target firm, has more resources in China to devote to the creation of post-merger synergies, has more bargaining power, and estimates the deal price more appropriately. Compared to truly foreign acquirers, foreign buyers with ultimate Chinese parents pay less and create more value to cover the cost of the deal, which results in smaller post-merger losses.

Different target industries also yield different long-term returns. Mergers in the real estate industry yield the highest negative returns, with -28.48%, -37.33% and -40.08%. Acquisitions of firms in the holding and other investment offices industry yield returns of -28.69%, -26.84% and -39.09%. Real estate-related industries yield significantly higher negative returns than other industries. Targets in the electronic and other electrical equipment industry yield the lowest negative returns with -6.5%, -17.21% and -19.59%. Food and kindred products and the transportation equipment industries also yield insignificant negative returns. Generally speaking, firms in real estate-related industries in China are not the best potential targets; due to the real estate bubble, these industries are booming and firms are overvalued, which causes the acquirer to overpay. In contrast, consumer-related industries earn relatively high returns due to increasing consumer power in the Chinese market.

4.3 Multivariate Analysis

4.3.1 Short-term Multivariate Analysis

For short-term analysis, I take different time interval CARs as the dependent variables. The independent variables are classified into three groups: financial statistics of the acquirer, including Tobin's Q, market capitalization, market-to-book value and financial leverage; momentum factors, including trailing one-year BHAR,

CAR and market return; and unique merger characteristics, including merger type, target listing status, ultimate parent of the acquirer, previous merger experience, final merger status and payment method. As Figure 19 shows, Tobin's Q and financial leverage have ambiguous relationships with short-term returns. Momentum effects do exist, as evidenced by the impact of trailing one-year CAR and BHAR on post-merger returns. Payment method also significantly affects short-term return.

Tobin's Q and financial leverage each have an ambiguous effect on short-term return. The regression using Tobin's Q as a factor is significant for the 0 to +5, 0 to +10 and -10 to +10 day intervals, but the coefficients are -0.0027, 0.004 and 0.0049, respectively. The effect of financial leverage is significant for the -5 to +5, -10 to +10, -1 to 0, -5 to 0, 0 to +5 and 0 to +10 day intervals, with coefficients of 0.0465, 0.0833, -0.0129, -0.0267, 0.0626, and 0.0891, respectively. The results indicate that the financial statistics of the acquirer have a small and uncertain impact on short-term return, which suggests that short-term investors do not consider an acquirer's financial statement important when assessing a merger.

To test the momentum effect, I use the trailing one-year BHAR, CAR and market return as regression factors. The trailing one-year CAR shows a significant relationship with the short-term return for the -1 to +1, -10 to +10, -1 to 0, -5 to 0,-10 to 0 and 0 to +1 day intervals, with coefficients of -0.0177,0.0610,-0.0151,-0.0273,0.0317 and -0.0242, respectively. The trailing one-year BHAR is significant as a regression factor for the -1 to +1, -1 to 0, -5 to 0 and 0 to +1 day intervals, with coefficients of 0.0128, 0.0135, 0.0302 and 0.0152, respectively. The results imply that although the momentum effect exists, the relationship is uncertain.

Unique merger characteristics do not have a significant impact on short-term return. Most of these factors are insignificant. The exception is payment method because stock payment and mixed payment each have a strong positive relationship with

CAR, and the coefficients are positive and significant for nearly the entire short-time interval. The result is consistent with Rohdes-Kropf et al. (2005) found that stock acquirers are usually more overvalued than those using cash. In addition, if a buyer uses its equity to pay for a merger, it implies that the buyer believes that its own equity is overvalued. I conducted and indicate that in the short term, investors consider stock payment to be good news for the acquirer. Therefore, when news of stock-payment merger is released, investors increasingly buy stock in the acquirer, which drives the increase in short-term return.

4.3.2 Long-term Multivariate Analysis

For the long-term factor analysis, I use 1-year, 2-year and 3-year BHAR as the dependent variables and regress them with different factors. As Table 20 illustrates, unlike the short-term results, momentum effect and merger characteristics show strong and consistent effects, but the impact of financial leverage factors tends to be insignificant.

Tobin's Q ratio is significant for 3-year long-term performance, with a coefficient of -0.0212. This result is inconsistent with classical theory. Andrade and Stafford (2000) also showed that merger and non-merger investments are positively related to the Tobin's Q of the acquirer. Andrade et al. (2001) researched more than two-thirds of all mergers since 1973 and found that the overall acquirer Q ratio exceeded the target Q ratio. A higher Tobin's Q indicates that the firm's market value is higher than its replacement cost and thus the firm's future growth will be stronger relative to a firm with a lower Tobin's Q. However, our result shows that a higher Tobin's Q results in a negative long-term return. One possible explanation is that a firm with a higher Tobin's Q will tend to expand and engage in merger activity, but the mergers will decrease its long-term performance due to financial costs or overpayment. Thus, the acquirer ultimately underperforms after the mergers. Market-to-book value has negative relationship with long-term performance. Market value is what the investor or market thinks the firm's value should be; a firm with good prospects may have a

higher market-to-book value. The regression of market-to-book value is negative and significant one year post-merger, which may indicate that acquirers with higher market-to-book values tend to expand and increase their financial costs. The effect of financial leverage is insignificant compared to the results of the short-term factor analysis.

Momentum effects do exist and have negative relationships with long-term performance. Trailing one-year market return shows a negative relationship with long-term performance, with coefficients of -0.2861 and -0.3189 in year 2 and year 3, respectively. The trailing 1-year CAR have a negative relationship with long-term performance, with a coefficient of 0.002. Matsusaka (1993) examined the ex-ante financial performance of firms before they merged, and Maksimovic and Phillips (2002) suggested that a firm with greater productivity than the industry average will tend to acquire assets from less productive firms. However, my results imply that the higher the acquirer's past performance, the lower its post-merger performance. This relationship can be explained by the behaviour finance theory. Specifically, previous over-performance makes management overconfident about firm expansion possibilities, which causes the acquirer to overpay for the target.

Unique mergers characteristics significantly affect long-term performance. For example, conglomerate mergers result in significant negative long-term underperformance, which implies that acquirers are unwise to expand their businesses into unfamiliar industries. The factor coefficient for conglomerate mergers is -0.1318 and -0.1287 for two- and three-year performance, respectively. In experience of the acquirer also shows a negative relationship with long-term performance, with regression coefficients of -0.1597 and -0.2028 for two- and three-year BHARs, respectively. This negative relationship may be due to a first-time acquirer having less experience with mergers, acculturation and the creation of synergistic value through the combination of two firms. Mergers that are ultimately completed show a positive relationship with long-term performance, with

regression coefficients of 0.0696, 0.1611 and 0.2622 for the first three years. This result is consist with the past researchers. Savor and Lu (2009) argued that more value is created for bidding firms' shareholders if the transaction is successfully completed. Payment method also affects long-term performance. Specifically, stock and mixed payments show a negative relationship with long-term performance. The stock payment regression coefficient is -0.2541 for the 3-year BHAR, the mixed payment coefficients are -0.2194, -0.2541 and -0.3073 for the three BHARs and are statistically significant. These results are contrary to the short-run results but consistent with classical theory. A stock payment shows that the buyer is uncertain about the post-merger value creation and therefore prefers to pay with stock rather than cash. A stock payment allows buyer and seller to share both the synergy value and the risk. Because a stock payment indicates less confidence about a merger, mergers paid in stock perform worse relative to cash mergers.

4.4 Robustness

To ensure the robustness of the results, I applied different time intervals to calculate and regress the abnormal returns. The short-term abnormal return time window encompasses -20 to +20 days around the announcement, and the long-term abnormal return time interval is each of the first 3 years after the merger announcement.

For the multivariate regression, I also consider the regional dummies and deal value in the robustness test. I take the regional dummies (including Asian dummies, European dummies, American dummies) and the deal value as the independent variables regression with both short and long term abnormal returns. For the deal value, the Foreign mergers in China (+5,-5) days short run regression are significant at 95%; For the regional dummies, the Foreign mergers in China Year 1 European buyers significant at 90%, and Year 2 Asian buyers significant at 90%. The increasing of these two independent variables do not increase the explanation power (adjusted R square) of the model.

As Table 17 shows, the short-term abnormal returns are all significant, with the exceptions of the (0, 20) and (-20, 20) time intervals. Different groups of CARs and BHARs are also significant in different time intervals. Example includes payment method, buyer ownership, previous experience, completion status and certain industries, as illustrated in Table 18. For the short-term regression, most independent variables are insignificant, the exceptions being trailing one-year BHAR and the mixed payment method. For the long-term regression, trailing one-year market return, conglomerate mergers, inexperienced acquirer, completed mergers and mixed payments are significant in most time intervals.

4.5 Conclusion

In this project, I thoroughly analysed M&A performance in China over the past twenty years. Both foreign and domestic buyers have been actively engaged in M&A activities because they all believe in China's future potential. I also analysed and compared the short-term and long-term abnormal returns of different groups. In addition, I performed a regression analysis to test the effect of various factors on post-merger acquirer performance. I not only applied numerous models to generate data but also described possible explanations for these numbers.

I started by reviewing foreign mergers in China. As China began its economic reform, its national economy improved at an amazing pace. Because foreign buyers and investors wanted to take advantage of this newly emerging economy, they started to negotiate mergers and buyout opportunities. I divide foreign M&A activity into four time periods, namely, seed period, pioneer period, growth period and boom period. The main target industries are business services; electronics and equipment; and chemicals and allied products. Our analyses showed that most foreign buyers aim to acquire control of Chinese targets to diversify their production lines and increase their access to domestic resources. As I expected, most foreign acquirers were in the holding and other investment offices industry, electronics industry, and the business services sector. Numerous firms in each of these sectors have sufficient

capital and the ambition to expand overseas, and the increased popularity of China's real estate market and the favourable exchange rate enabled them to implement their expansion plans. Most buyers prefer cash payments rather than equity because they are very optimistic about the achievement of post-merger synergies. Additionally, cash payments enable acquirers to obtain control of their targets. Hong Kong, the United States, and Singapore were among the top ten countries in terms of foreign buyers. Other developed nations, such as South Korea, Taiwan and Japan, also engaged in many M&A transactions in China.

Second, I analysed short- and long-term post-merger performance and found that investors consider merger announcements to be good news in the short term. The short-term CAR is significantly positive around the -15 to +15 day interval. I also compared the performances of different groups. Mergers paid in stock usually yield higher returns than those paid in cash, and experienced buyers yield higher returns than new buyers. Acquisitions in same industry generally perform better than those in different industries. Certain industries, including the commercial machine, kindred product, and electronic and equipment industries earn higher short-term returns than other industries. With respect to long-term returns, I found that acquirer stock declines on average by -14.54%, -24.05% and -29.18% in the first three years, with a 99% confidence level. Most acquirers suffer losses due to mergers. Regarding short-term performance, purchases using stock payments experience the lowest losses relative to the other payment methods and experienced buyers lose much more than inexperienced buyers. In addition, surprisingly, acquirers lose much less when they buy public firms rather than private firms. Finally, the results showed that conglomerate mergers lose more than same-industry mergers, and Chinese firms generally suffer lower losses than foreign buyers.

Third, I applied multivariate regression analysis to test the extent to which different factors affected short-and long-term performance. In the short term, Tobin's Q and financial leverage have ambiguous effects. The momentum effect does exist, as

evidenced by the impact of trailing one-year CAR and BHAR on post-merger performance. Unique merger characteristics do not have a significant impact on short-term performance. In long run, Tobin's Q and market-to-book value each have a weak negative relationship with long-term performance. The momentum effect also influences long-term performance; surprisingly, the results showed that better past performance indicates worse long-term post-merger performance. Unique merger characteristics significantly affect long-term performance. For instance, conglomerate mergers and inexperienced acquirers have negative impacts on long-term performance. In addition, the use of the stock payment method is associated with significant negative long-term performance.

FIGURE 5: The Deals of Foreign Public Company M&As in China

This Figure shows yearly data of the Chinese overseas M&As from January 1991 to October 2010. The sample contains the foreign public listed acquires mergers Chinese domestic target which deal value higher than 5 million. The total sample size is 1433 deals. These data collect from Thomson One Banker.

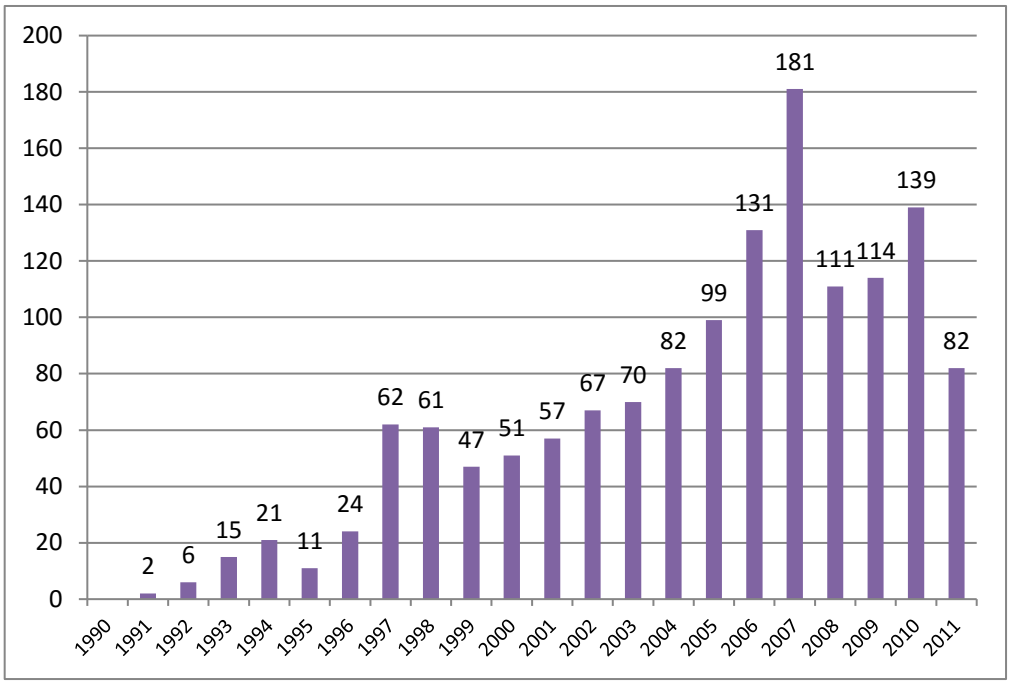


TABLE 14: Foreign M&As in China Target by Industry

This table presents the statistics data of the Chinese domestic M&As target industries. There are totally 1435 deals; in the table below I illustrate the top 10 industries by number of cases and percentage. The industries are classified by the Standard Industrial Classification (SIC) codes.

No.	SCI code	Industry Sector	No. of Cases	Percentage
1	7300	Business Services	126	8.78%
2	3600	Electronic and Other Electrical Equip	108	7.53%
3	2800	Chemicals and Allied Products	93	6.48%
4	2000	Food and Kindred Products	92	6.41%
5	6500	Real Estate	89	6.20%
6	6700	Holding and Other Investment Offices	82	5.71%
7	4900	Electric Gas& Sanitary Services	76	5.30%
8	3700	Transportation Equipment	56	3.90%
9	3300	Primary Metal Industries	50	3.48%
10	3500	Industrial and Commercial Machinery	47	3.28%
		others	616	42.93%
Total			1435	100.00%

TABLE 15: Foreign M&As in China Acquirer by Industry

This table presents the statistics data of the Chinese domestic M&As acquirer industries. There are totally 1435 deals. In the table below I illustrate the top 10 industries by number of cases and percentage. The industries are classified by the Standard Industrial Classification (SIC) codes.

No.	SCI code	Industry Sector	No. of Cases	Percentage
1	6700	Holding and Other investment offices	130	9.06%
2	3600	Electronic& other Electrical equipment	108	7.53%
3	7300	Business Services	107	7.46%
4	2800	Chemicals and Allied Products	81	5.64%
5	6500	Real Estate	76	5.30%
6	3500	Industrial and Commercial Machinery	72	5.02%
7	2000	Food and Kindred Products	67	4.67%
8	3300	Primary Metal Industries	53	3.69%
9	4900	Electric Gas& Sanitary Services	50	3.48%
10	3700	Transportation Equipment	47	3.28%
		Others	644	44.88%
Total			1435	100.00%

TABLE 16: The Foreign M&As in China by Country/Region

This table presents the statistics data of the Foreign M&As acquirer countries and areas. There are totally 1435 deals. In the table below illustrate the top 10 acquirer countries and areas by number of cases and percentage. Although Taiwan, Hong Kong and Macau belong to China, due to the different politic and economic policy, these areas mergers are consider as the foreign areas.

No.	Country/Region	No. of Cases	Percentage
1	Hong Kong	550	38.33%
2	United States	227	15.82%
3	Singapore	106	7.39%
4	Japan	89	6.20%
5	South Korea	68	4.74%
6	Canada	61	4.25%
7	United Kingdom	59	4.11%
8	Taiwan	47	3.28%
9	Australia	45	3.14%
10	Malaysia	24	1.67%
	Others	159	11.08%
Total		1435	9.62%

FIGURE 6: The AAR, CAR and average CAR of foreign acquirer

This figure shows the -20 days to + 20 days average abnormal return (AAR), cumulative average abnormal return (CAR) and average CAR of foreign M&As in China. The abnormal return is calculated by ARt= Ri-Rm, the cumulative average abnormal return is calculated by CARt=$\sum_{t=0}^{n}$ ARt.

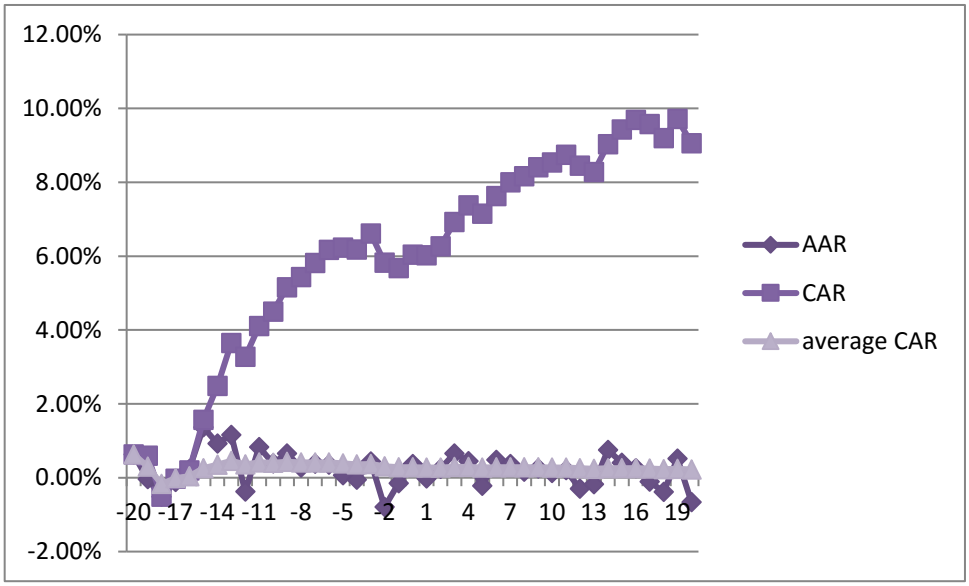


TABLE 17: The T-test of Foreign Acquirer mergers Chinese Target

This table contains the t-test of Foreign Acquirer M&As cumulative short run abnormal return. The time interval of the sample is -20 to +20 days around the announce date. The t values calculate as: $t = \frac{ARt}{\sigma(ARt/\sqrt{n})}$

Time interval	Obs	Mean	Std.Err.	Std.Dev.	T-test
(0,1)	1294	0.0171	0.0027	0.0979	6.2793***
(0,3)	1294	0.0152	0.0036	0.1280	4.2843***
(0,5)	1294	0.0171	0.0046	0.1662	3.7***
(0,7)	1294	0.0117	0.0050	0.1790	2.3413**
(0,10)	1294	0.0155	0.0052	0.1883	2.9693***
(0,20)	1294	-0.0035	0.0068	0.2430	-0.5153
(-1,0)	1294	0.0193	0.0028	0.1007	6.8951***
(-3,0)	1293	0.0247	0.0038	0.1366	6.5002***
(-5,0)	1293	0.0256	0.0041	0.1486	6.1869***
(-7,0)	1293	0.0279	0.0045	0.1615	6.2063***
(-10,0)	1292	0.0321	0.0050	0.1813	6.3714***
(-20,0)	1287	0.0307	0.0065	0.2315	4.7616***
(-1,1)	1294	0.0232	0.0030	0.1063	7.8364***
(-3,3)	1293	0.0268	0.0047	0.1695	5.6788***
(-5,5)	1293	0.0295	0.0057	0.2063	5.1474***
(-7,7)	1293	0.0264	0.0062	0.2227	4.2654***
(-10,10)	1292	0.0335	0.0066	0.2382	5.053***
(-20,20)	1287	0.0131	0.0091	0.3271	1.4412

TABLE 18: The Comparison of Foreign M&As in China CAR and BHAR

This table illustrate the foreign M&As in China cumulative abnormal return (CAR) and buy and hold abnormal return (BHAR). The time interval of CAR is -10 to + 10 days around the announcement date. The time interval of BHAR is 3 years after the announcement data respectively. The CAR using the formula CARt=$\sum_{t=0}^{n}$ ARt. The BHAR using the formula BHARit= $\prod_{t=0}^{T}[1 + Rit]$ - $\prod_{t=0}^{T}[1 + Rmt]$. I classified the returns by different group payment method, acquirer ownership, previous experience, target status, mergers type, final complete status, top 10 target industries. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Group	Subgroup		BHAR1	BHAR2	BHAR3	CAR(0,1)	CAR(0,5)	CAR(0,10)	CAR(-1,0)	CAR(-5,0)	CAR(-10,0)	CAR(-1,+1)	CAR(-5,+5)	CAR(-10,+10)
Payment Method	cash	Mean	-3.87%	-9.62%	-28.17%	1.28%	0.56%	-0.55%	0.77%	0.98%	1.25%	1.72%	1.21%	0.37%
		P-value	0.3181	0.0624*	0***	0.0014***	0.3269	0.4664	0.042**	0.1011	0.0896**	0.0002***	0.1147	0.7283
		N	256	213	187	282	282	282	282	282	282	282	282	282
	stock	Mean	-28.07%	-41.66%	-54.31%	3.12%	6.31%	7.38%	3.27%	5.91%	7.58%	3.82%	9.66%	12.39%
		P-value	0.0001***	0***	0***	0.0292**	0.0283**	0.0202**	0.0057***	0.0019***	0.0005***	0.0075***	0.0017***	0.0004***
		N	113	106	92	127	127	127	127	127	127	127	127	127
	mix	Mean	-36.25%	-50.15%	-53.26%	4.10%	4.74%	4.44%	4.08%	5.70%	8.28%	4.82%	7.08%	9.37%
		P-value	0***	0***	0***	0.0001***	0.001***	0.005***	0.0005***	0.0001***	0***	0***	0.0006***	0.0001***
		N	180	153	123	210	210	210	210	210	210	210	210	210
Acquirer Ownership	China buyer	Mean	-8.54%	-16.75%	-20.58%	1.07%	0.82%	0.54%	1.23%	2.34%	3.47%	1.67%	2.53%	3.39%
		P-value	0.0353**	0.0124**	0.02**	0.0178**	0.2297	0.5635	0.0015***	0.0001***	0.0001***	0.0009***	0.0024***	0.0031***
		N	196	175	162	211	211	211	211	211	211	211	211	211
	Non China buyer	Mean	-15.74%	-25.50%	-30.96%	1.83%	1.88%	1.75%	2.07%	2.60%	3.16%	2.44%	3.04%	3.34%
		P-value	0***	0***	0***	0***	0.0005***	0.0035***	0***	0***	0***	0***	0***	0***
		N	982	878	780	1083	1083	1083	1083	1082	1081	1083	1082	1081
Previous Experienc	experienced	Mean	-43.95%	-51.82%	-59.27%	2.47%	2.62%	2.54%	3.71%	5.17%	8.01%	3.46%	5.07%	7.82%
		P-value	0.0002***	0***	0***	0.0244**	0.0656*	0.1222	0.0003***	0.0003***	0.0006***	0.0053***	0.0064***	0.0053***

e		N	92	80	70	103	103	103	103	103	103	103	103	103
		Mean	-16.68%	-31.75%	-37.72%	2.14%	2.39%	2.66%	2.39%	3.06%	3.15%	2.85%	3.78%	3.92%
	1stmerge	P-value	0***	0***	0***	0***	0.0056***	0.0038***	0***	0***	0.0002***	0***	0.0004***	0.0005***
		N	552	482	418	623	623	623	623	622	621	623	622	621
		Mean	1.55%	-17.66%	-33.87%	1.67%	2.36%	2.16%	0.37%	0.02%	0.96%	1.67%	2.02%	2.75%
	target public	P-value	0.7566	0.0893*	0***	0.0204**	0.0188**	0.0975*	0.5764	0.9798	0.4321	0.0303**	0.0684*	0.1095
Target		N	66	61	59	68	68	68	68	68	68	68	68	68
Status		Mean	-15.50%	-24.44%	-28.86%	1.71%	1.67%	1.52%	2.02%	2.70%	3.34%	2.35%	3.01%	3.38%
	target private	P-value	0***	0***	0***	0***	0.0006***	0.0056***	0***	0***	0***	0***	0***	0***
		N	1112	992	883	1226	1226	1226	1226	1225	1224	1226	1225	1224
		Mean	-20.78%	-31.71%	-37.97%	2.09%	2.63%	2.49%	2.36%	3.50%	4.46%	2.76%	4.46%	5.08%
	conglomerate	P-value	0***	0***	0***	0***	0.0003***	0.0025***	0***	0***	0***	0***	0***	0***
Mergers		N	647	572	504	716	716	716	716	715	714	716	715	714
Type		Mean	-10.95%	-18.02%	-19.46%	2.15%	-0.48%	-1.57%	1.48%	1.69%	2.17%	2.86%	0.44%	-0.16%
	vertical/horizon	P-value	0.072*	0.038**	0.0541*	0.0025***	0.607	0.2159	0.0103**	0.0283**	0.0262**	0.0002***	0.656	0.9208
		N	62	55	52	68	68	68	68	68	68	68	68	68
		Mean	-21.03%	-36.43%	-44.34%	2.14%	1.68%	1.02%	2.23%	2.52%	4.12%	2.50%	2.35%	3.30%
	completed	P-value	0***	0***	0***	0***	0.0043***	0.1371	0***	0.0003***	0***	0***	0.0056***	0.0016***
Complete		N	501	430	381	575	575	575	575	574	574	575	574	574
Status		Mean	-13.60%	-20.03%	-24.17%	1.65%	3.29%	3.62%	1.85%	3.39%	3.20%	2.49%	5.67%	5.43%
	uncompleted	P-value	0.0008***	0.0002***	0.0004***	0.001***	0.0051***	0.0064***	0.0001***	0***	0***	0***	0***	0.0002***
		N	344	314	281	370	370	370	370	370	369	370	370	369
		Mean	-13.77%	-29.82%	-35.87%	2.46%	1.25%	1.12%	1.34%	1.74%	1.79%	2.66%	1.85%	1.77%
Top10	Business Services	P-value	0.0038***	0.0005***	0.0001***	0.0211**	0.2702	0.4535	0.1375	0.2146	0.3385	0.0147**	0.1968	0.2812
Target		N	100	86	75	115	115	115	115	115	115	115	115	115
Industry	Electronic&Other	Mean	-6.50%	-17.21%	-19.59%	1.82%	3.67%	4.18%	0.88%	1.16%	2.06%	1.68%	3.95%	5.41%

	Electrical Equip	P-value	0.3836	0.0436**	0.0835*	0.0049***	0.1451	0.0751*	0.1262	0.169	0.1058	0.0251**	0.1284	0.0414**
		N	86	79	73	97	97	97	97	96	96	97	96	96
	Chemicals&Allied Products	Mean	-11.54%	-26.32%	-34.29%	1.68%	0.84%	1.39%	0.97%	1.96%	4.67%	2.17%	2.31%	5.57%
		P-value	0.0665*	0.0009***	0.0018***	0.0179***	0.4239	0.4822	0.0958*	0.0831*	0.0185**	0.0135**	0.1537	0.0366**
		N	76	63	58	83	83	83	83	83	83	83	83	83
	Food&Kindered Products	Mean	-1.06%	-8.97%	-13.01%	3.67%	2.98%	1.32%	4.92%	6.37%	2.76%	4.44%	5.20%	-0.06%
		P-value	0.8971	0.5312	0.5526	0.0648*	0.0744*	0.4205	0.0358**	0.0497**	0.2797	0.0244**	0.0555*	0.9774
		N	72	58	53	81	81	81	81	81	81	81	81	81
	Real Estate	Mean	-28.49%	-37.33%	-40.08%	0.51%	0.79%	-0.36%	1.57%	2.61%	0.56%	1.08%	2.40%	-0.81%
		P-value	0***	0.0011***	0.0014***	0.5555	0.5482	0.8581	0.1691	0.0496**	0.7966	0.2839	0.1082	0.6957
		N	72	69	67	77	77	77	77	77	77	77	77	77
	Holding&Other Investment Offices	Mean	-28.69%	-26.84%	-39.09%	1.19%	1.38%	1.15%	0.67%	1.14%	2.44%	1.35%	2.01%	3.08%
		P-value	0.0314	0.0053***	0***	0.1104	0.2233	0.4936	0.281	0.3035	0.1919	0.0725*	0.1593	0.1798
		N	70	64	56	76	76	76	76	76	76	76	76	76
	Electric Gas& Sanitary Services	Mean	-11.23%	-17.53%	-37.06%	1.11%	0.91%	1.82%	2.42%	2.58%	3.22%	2.61%	2.58%	4.12%
		P-value	0.118	0.0902*	0.001***	0.1915	0.4649	0.2349	0.068*	0.1375	0.096*	0.0378**	0.1943	0.0774*
		N	61	59	55	68	68	68	68	68	68	68	68	68
	Transportation Equipment	Mean	0.05%	-15.45%	-13.99%	0.77%	-1.71%	-4.47%	1.14%	0.71%	2.69%	1.02%	-1.89%	-2.66%
		P-value	0.9973	0.4986	0.6181	0.421	0.3104	0.0593*	0.2531	0.689	0.2615	0.2783	0.4248	0.3288
		N	41	37	33	45	45	45	45	45	45	45	45	45
	Primary Metal Industries	Mean	-15.29%	-17.47%	-28.61%	2.03%	0.94%	0.53%	1.29%	0.80%	2.35%	2.50%	0.92%	2.07%
		P-value	0.0635*	0.1268	0.0051***	0.09*	0.5333	0.8118	0.2141	0.4982	0.1835	0.0687*	0.6068	0.4191
		N	41	37	32	45	45	45	45	45	45	45	45	45
	Industrial&Commercial Machinery	Mean	-19.79%	-19.67%	-26.04%	3.80%	8.75%	9.61%	3.27%	4.29%	4.71%	4.82%	10.79%	12.08%
		P-value	0.0162**	0.2681	0.1341	0.0219**	0.0513*	0.0242**	0.0105**	0.3342	0.2977	0.0154**	0.1862	0.1392

	N	39	33	27	45	45	45	45	45	45	45	45	45
	Mean	-14.54%	-24.05%	-29.18%	1.71%	1.71%	1.55%	1.93%	2.56%	3.21%	2.32%	2.95%	3.35%
Average	P-value	0***	0***	0***	0***	0.0002***	0.003***	0***	0***	0***	0***	0***	0***
	N	1178	1053	942	1294	1294	1294	1294	1293	1292	1294	1293	1292

TABLE 19: The Multivariate Analysis of Short Run Factors of Foreign M&As in China

This table presents the results for the multivariate analysis of the short run factors for the foreign M&As in China. The model regress the different time interval CARs from -10 to +10 days around the data of deal announcement. The model include a dummy which takes the value of one if the deal was conglomerate mergers(CONGLOMERATE); if deal was the public listed target (PUBLIC TARGET); if deal was state owned enterprises acquirers (SOE ACQUIRER); if acquirer do not have mergers experience (NON EXPERIENCE); if deal was finally report complete (COMPLETE); if the deal was financed using 100% cash (CASH).The model also include Tobin Q ratio, Market Capitalization, Market to Book value, Financial leverage, Trailing 1 year BHAR, Trailing 1 year market return, Trailing 1 year CAR as dependent variable. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Variable	CAR(-1,+1)		CAR(-5,+5)		CAR(-1,0)		CAR(-5,0)	
	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value
TOBIN Q	0.0004	0.6680	-0.0014	0.3820	0.0003	0.6990	0.0017	0.1370
MCAP	0.0000	0.5140	0.0000	0.9990	0.0000	0.4580	0.0000	0.8830
MTBV	-0.0003	0.3950	0.0004	0.5430	-0.0001	0.7000	-0.0003	0.5430
MV	0.0000	0.4900	0.0000	0.1340	0.0000	0.7050	0.0000	0.4520
LEVERAGE	-0.0092	0.1440	0.0465	0***	-0.0129	0.011**	-0.0267	0.001***
TRAILING BHAR	0.0128	0.044**	0.0180	0.1320	0.0135	0.008***	0.0302	0***
TRAILING RETURN	-0.0145	0.2240	-0.0260	0.2450	-0.0120	0.2120	0.0050	0.7490
TRALING CAR	-0.0177	0.033**	-0.0023	0.8810	-0.0151	0.024**	-0.0273	0.013**
CONGLOMERATE	0.0055	0.3910	0.0061	0.6120	0.0059	0.2520	0.0149	0.0770
PUBLIC TARGET	0.0012	0.9320	0.0137	0.6010	-0.0073	0.5170	-0.0117	0.5230
SOE ACQUIRER	-0.0124	0.1550	-0.0167	0.3060	-0.0097	0.1690	-0.0175	0.1250
NON EXPERIENCE	0.0044	0.5090	0.0049	0.6930	0.0049	0.3610	0.0064	0.4660
COMPLETE	-0.0024	0.6990	-0.0014	0.9080	-0.0012	0.8160	-0.0035	0.6770
CASH	0.0084	0.2770	0.0091	0.5270	-0.0016	0.7940	0.0026	0.7970
STOCK	0.0286	0.018**	0.0865	0***	0.0319	0.001***	0.0771	0***
MIX	0.0375	0***	0.0832	0***	0.0251	0.001***	0.0517	0***
_cons	0.0323	0.0350	0.0116	0.6860	0.0278	0.0240	0.0147	0.4630
Number of obs	1003		1003		1003		1003	
F Value	2.2700		3.9900		2.8500		4.7600	
R-squared	3.55%		6.08%		4.42%		7.18%	
Adj R-squared	1.99%		4.55%		2.87%		5.67%	

TABLE 20: The Multivariate Analysis of Long Run Factors of Foreign M&As in China

This table presents the results for the multivariate analysis of the short run factors for the foreign M&As in China. The model regress the different time interval BHARs from +1 to +3 years after the deal announcement. The model include a dummy which takes the value of one if the deal was conglomerate mergers(CONGLOMERATE); if deal was the public listed target (PUBLIC TARGET); if deal was state owned enterprises acquirers (SOE ACQUIRER); if acquirer do not have mergers experience (NON EXPERIENCE); if deal was finally report complete (COMPLETE); if the deal was financed using 100% cash (CASH).The model also include Tobin Q ratio, Market Capitalization, Market to Book value, Financial leverage, Trailing 1 year BHAR, Trailing 1 year market return, Trailing 1 year CAR as dependent variable. The P-Value is shown at 1% level, 5% level and 10% level, denoted *, **, *** respectively.

Variable	BHAR1		BHAR2		BHAR3	
	Coef.	P-Value	Coef.	P-Value	Coef.	P-Value
TOBIN Q	0.0053	0.2750	-0.0129	0.1260	-0.0212	0.032**
MCAP	0.0000	0.7740	0.0000	0.8930	0.0000	0.5280
MTBV	-0.0059	0.006***	-0.0035	0.2930	-0.0032	0.4160
MV	0.0000	0.3930	0.0000	0.8680	0.0000	0.5930
LEVERAGE	-0.0544	0.1360	0.0404	0.4840	0.0674	0.3680
TRAILING BHAR	0.0296	0.4080	0.0260	0.6420	-0.0113	0.8640
TRAILING RETURN	-0.0353	0.6000	-0.2861	0.008***	-0.3189	0.027**
TRALING CAR	-0.1491	0.002***	-0.0536	0.4660	-0.0094	0.9170
CONGLOMERATE	-0.0467	0.2070	-0.1318	0.026**	-0.1287	0.074*
PUBLIC TARGET	0.0868	0.2700	0.0491	0.6930	-0.0841	0.5660
SOE ACQUIRER	0.0221	0.6570	-0.0067	0.9330	0.0490	0.6130
NON EXPERIENCE	-0.0395	0.3010	-0.1597	0.01***	-0.2028	0.007***
COMPLETE	0.0696	0.057***	0.1611	0.006***	0.2622	0***
CASH	0.0709	0.1100	0.0789	0.2730	-0.1214	0.1680
STOCK	-0.0934	0.1730	-0.0548	0.6080	-0.2541	0.052**
MIX	-0.2194	0***	-0.2787	0.001***	-0.3073	0.005***
_cons	0.0048	0.9560	0.2091	0.1270	0.1833	0.3140
Number of obs	956		847		755	
F Value	4.2500		3.2100		3.3700	
R-squared	6.75%		5.82%		6.81%	
Adj R-squared	5.16%		4.01%		4.79%	

CHAPTER 5 COMPARATIVE STUDIES AND CONCLUSION

In this chapter, I conduct a comparative study of the different subgroups. The main purpose of this chapter is to compare differences in performance and in the factors that affect the performance of different groups and to offer possible explanations for these differences in economic terms. Finally, I review the entirety of the research and findings contained in this thesis, outline its theoretical and empirical contributions, draw conclusions regarding the research results and provide suggestions for possible future research.

5.1 Comparative study

5.1.1 Descriptive Statistics

In this study, I reviewed the past twenty years of M&A activity related to the Chinese market. As explained previously, there are three subgroups: Chinese acquirer buys a foreign target, Chinese acquirer buys a Chinese target, and foreign acquirer buys a Chinese target. There are a total of 5119 transactions. Chinese domestic mergers account for the majority of M&A activity, with 3461 deals, or 67.61% of the total. Foreign acquisitions of Chinese targets are the second largest component, accounting for 27.99% of the total with 1433 transactions. Chinese overseas mergers account for the smallest portion of M&A activity, accounting for only 4.4% of the total with 225 transactions. For the first ten years, the predominant merger type was the foreign acquisition of Chinese targets, which was due to the opening up policy in China and the Chinese government's encouragement of multinational company investment in China. In contrast, the Chinese domestic merger market lacked capital and was unfamiliar with M&A tools during this ten-year period. However, after 2000, Chinese acquirers played a more important role in both domestic and overseas M&A markets due to the growing Chinese economy, appreciation of the domestic currency, and sufficient money supply and market liquidity.

Regarding the target industry, certain industries are hot in all three merger subgroups.

For instance, the following industries are included within the top ten target industries for each subgroup: electrical equipment and components; business services; holding and other investment offices; industrial and commercial machinery; and computer equipment. This phenomenon is attributable to economic globalization, a boom economy and technology development. In the Chinese domestic market, foreign buyers and domestic buyers focus on the same industries, leading to a 90% overlap between their respective top target industries. In addition to the four industries mentioned above, top ten target industries include real estate; chemicals and allied products; electric, gas, and sanitary services; primary metal industry; and transportation equipment. Certain industries, such as metal and chemicals, are popular due to the boom of the Chinese economy, which will lead to material increases in these industries. The popularity of other industries, such as utility supply and transportation equipment, can be attributed to the urbanization process in which an increasing number of rural surrounding areas are absorbed into cities. In addition, real estate industries are experiencing an unprecedented bubble and prosperity.

The general results for the top ten acquirer industries are the same as those for the top ten target industries, and most of the top ten domestic acquirer industries overlap with the top ten foreign acquirer industries. Most buyers operate in six industries: electronic and other electric equipment; industrial machinery and equipment; primary metal industries; chemical and allied products; business services; and real estate. Two factors can explain the high level of consistency between buyer and target industries. One is that most of mergers occur in the same or related industries; horizontal and vertical mergers are more common than conglomerate mergers. The other reason is that these boom industries can earn excess profits, which enables and incentivizes buyers in these industries to rapidly expand their businesses. One exception is the booming Chinese real estate market, which contrasts with the real estate market recessions in developed countries. Most Chinese buyers are acquiring foreign real estate due to the undervaluation of the industry after the 2008 financial crisis.

The top ten foreign acquirer countries and the top ten foreign target countries of Chinese overseas mergers are 80% consistent. I can classify these counties into three groups. The first group comprises Hong Kong, Japan, South Korea and Singapore; due to their geographic advantages and similar cultures, these countries and regions have very tight economic relations with China. The second group includes the United States and United Kingdom, which are highly developed countries with large markets and numerous multinational companies. The third group is Canada and Australia, which are characterized by abundant resources. I conclude that a tight economic relationship and similar cultures result in frequent M&As activity.

5.1.2 Short-term and long-term abnormal return.

In the previous chapter, I calculated the abnormal return, CAR, average CAR and BHAR in different time intervals for three subgroups and offered possible reasons for differences among them. I also calculated CAR and BHAR using different classifications: payment method, acquirer ownership, previous experience, target status, merger type, final completion status, and target listing status. Certain groups gain significantly higher abnormal returns than other groups. In this section, I compare the three subgroups and endeavour to explain possible reasons for differences among them.

All three subgroups yield significant abnormal returns around the event day; however, the significance and market reactions differ. In Chinese overseas mergers, the abnormal return becomes positive 15 days prior to the announcement and continues to increase until 1 day after the announcement, when it becomes negative. Chinese domestic mergers show the same pattern, that is, abnormal returns are positive before the announcement but turn negative after the announcement. In contrast, the stock of foreign buyers shows negative abnormal returns both before and after merger announcements. This phenomenon is due to differences in investment psychology between different markets. In the Chinese market, a merger is considered good news for the buyer because it indicates that the buyer is expanding its business and has a

bright future in terms of future development. Therefore, if a buyer releases news of a merger, investors are willing to invest more money in the buyer's stock. Usually, news of a merger is released via other paths, such as company announcements and public news sources, before the formal stock exchange announcement is made. Therefore, I observe that prior to the announcement date, acquirer stocks earn significant abnormal returns but after the event day, most acquirer stocks will reflect the information that the buyer overpaid, and the stock price begins to decline. Foreign acquirers are listed on foreign stock exchanges and are predominantly based in developed countries. Investors in developed stock markets view merger announcements as bad news because mergers indicate an increased financial burden for the acquirer and there is uncertainty regarding future synergies. Therefore, foreign acquirers show negative returns around the event day. I also calculated short-term CAR for different time intervals. For Chinese domestic mergers, the CARs are significantly positive from +20 to -20 days. For Chinese overseas mergers, the -20 to 1 day CARs are significant at a 90% to 95% confidence interval, which indicates that the abnormal return exists before the event but is ambiguous afterwards. These results are consistent with the abnormal returns discussed in the previous paragraph. For the foreign acquirer, CARs are statistically significant, which the exception of the +20 day time interval. This exception may indicate that the market has fully absorbed news of the merger. One interesting observation is that the short-term CAR and average CAR earned by the foreign acquirer are nearly twice as high as those of Chinese acquirers.

Different payment methods cause different abnormal returns for different subgroups. In the short run, the cash payment method yields positive abnormal returns in all three subgroups, with Chinese overseas mergers yielding the highest returns among them. Stock payment yields significant abnormal returns in Chinese domestic mergers but is insignificant in Chinese overseas mergers. If the target is a Chinese firm, stock payments by both Chinese and foreign buyers yield an abnormal return that is 2 to 8 times higher than that for cash payments. In the long run, Chinese overseas mergers and foreign mergers yield significant negative returns, and stock payments yield

higher losses than cash payments, from 28.07% to -88.13% for 3-year BHAR. The exception is Chinese domestic mergers, which yield positive returns when stock is used as payment, earning 11.47%, 21.97% and 27.64%, but negative returns when the acquirer pays in cash. In summary, in the short-term, stock payments yield higher returns than cash payments, which is consistent with the classical premise that investors believe that a stock payment reduces the acquirer's future financial burden and the notion that the Chinese market views mergers more favourably than foreign stock markets. In long run, mergers increase the buyers' financial burdens and destroy buyer value, causing significant losses. One exception is Chinese domestic mergers in which the stock payment method is used, which earns a positive long-term return. This phenomenon is because SOE mergers usually use the stock payment method. In China, if both buyer and target are SOEs, the merger may not only reflect business behaviour but also have implications for national strategy or economic restructuring. Therefore, the value of the stock payment may underestimate the post-merger cultural fit and synergies.

Acquirer ownership also influences merger performance. I classified the Chinese buyers as SOEs and privately owned; foreign buyers are classified by whether the ultimate parent company is Chinese. Although the criteria are different, the aim and logic are the same, that is, to check whether SOEs and ultimate Chinese parents generate superior performance relative to private companies and purely foreign buyers. In the short run, all three subgroups yield significant positive returns, and the SOE/Chinese parent buyers earn nearly the same abnormal returns as the private/foreign buyers. This result indicates that in short run, investors do not consider ownership of the buyer to be an important factor in the future success of a merger. In the long run, foreign buyers with ultimate Chinese parents yield 2 to 1.5 times less negative returns than purely foreign buyers. Chinese SOE buyers earn positive long-term abnormal returns in the Chinese domestic market and relatively less negative returns in the foreign market. These results indicate that in the short run, ownership is an important factor considered by investors. In the long run, foreign

buyers with ultimate Chinese parents and SOE buyers have greater bargaining power or advantages that enable these buyers to obtain higher abnormal return.

Previous merger experience has different effects on short-term and long-term performance. For Chinese domestic mergers and foreign mergers in China, both experienced and inexperienced buyers enjoy significant short-term abnormal returns, although experienced buyers earn slightly higher abnormal returns than inexperienced buyers. This result indicates that investors have more confidence in experienced buyers and in buyers making acquisitions in the Chinese domestic market. In contrast, for Chinese buyers of foreign firms and experienced buyers earn insignificant abnormal returns and inexperienced buyers earn abnormal returns only between -10 to 0 days at a 90% confidence interval. These results may reflect that historically, Chinese overseas mergers are unsuccessful and destroy buyer value, and thus investors have less confidence in these mergers. In the long run, foreign buyers suffer the largest loss, and the experienced buyer loses nearly twice as much as inexperienced buyer. Chinese overseas buyers also have negative returns. On the contrary, Chinese domestic experienced buyers earn positive abnormal return. The results suggest that in the long run, previous experience and familiarity with the target market have a positive effect on the buyer's future performance.

The target listing status has a slight influence on short-term performance and an ambiguous effect in the long run. In the short run, in the Chinese domestic mergers market, both Chinese buyers and foreign buyers earn higher positive abnormal returns for publicly listed targets than private targets. Companies listed on the Chinese stock market are approved by the China Securities Regulatory Commission; thus, listed firms are considered to be high-quality targets. For Chinese overseas mergers, private targets yield positive abnormal returns whereas the abnormal return on listed targets is insignificant. As previously discussed, these results indicate that investors have less confidence in overseas mergers and that the buyer may overpay for a public target. In the long run, the abnormal return is generally negative, but target listing status has an

ambiguous effect on long-term returns.

Conglomerate mergers have slightly higher abnormal returns in the short run but lower abnormal returns in the long run than vertical/horizontal mergers. In the Chinese domestic merger market, conglomerate mergers have significantly higher positive returns than vertical/horizontal mergers. This phenomenon shows that the enterprise diversification strategy is more popular among investors than the extended value chain strategy. However, in the long run, the conglomerate BHAR is significantly lower than that for vertical/horizontal mergers. This result suggests that it is easier for the buyer to create synergistic value with a target in a familiar business area than with a target in an unfamiliar area.

I also included the ultimate merger completion status as a control variable. In the short run, completed mergers have higher abnormal returns than uncompleted mergers, but the results in the long run are the opposite. Because our trigger event is defined as the date on which the buyer announces the merger to the stock market, the ultimate completion status of the merger is unknown at the time of the trigger event. The interesting observation is that stock investors can predict the final status of the merger. Because buyers use their own information and experience to analyse the potential success of their mergers, the buyers' actions reflect the market information. In the long run, if the merger is not completed, the buyer does not overpay the target and thus the long-term abnormal return for uncompleted mergers is higher than that for completed mergers.

Regarding target industries, different industries yield significantly different abnormal returns for different subgroups. Certain industries have positive short-term abnormal returns in multiple subgroups; for example, the chemicals and allied products industry and electric, gas, and sanitary services industry yield positive returns in the Chinese domestic market due to the rapid growth of these industries in the Chinese market. Certain industries have superior abnormal returns to those of other industries. For

instance, the industrial and commercial machinery industry and food and kindred products industry generate higher short-term returns than other target industries. In the long run, certain industries generate significant losses. For example, the business services 3-year BHAR in the various subgroups is -75.66%, -39.2%, and -35.87%.Hot target industries include electrical equipment and components; electronic and other electrical equipment; and real estate. These industries also yield significantly higher losses than other industries. These results may be due to intense competition in these industries or overpayment by the buyer.

5.1.3 Short-term Multivariate Analysis

For short-term multivariate analysis, I use different time interval CARs as independent variables. The independent variables are categorized into three groups. The first group comprises financial characteristics of the acquirer, including Tobin's Q, market capitalization, market-to-book value and financial leverage. The second group includes acquirer, target and merger characteristics, such as merger type, acquirer and target types, acquirer ownership, acquirer previous experience, payment method and final merger status. The third group relates to the momentum effect and includes trailing three-year BHAR, CAR and market return.

For all three subgroups, Chinese overseas mergers CARs were unrelated to all independent variables. Although I used the winsorizing method to eliminate the 1%, 5%, and 10% extreme values, the results remain insignificant. Economically speaking, the insignificance of these factors with respect to short-term return does not mean that these factors have no impact on the firm's future performance. The more reasonable explanation is that Chinese investors are less sensitive to these factors than US investors.

The short-term return on Chinese domestic mergers, including those conducted by both Chinese and foreign buyers, are affected by similar factors. In terms of financial variables, Tobin's Q, market-to-book value and financial leverage are significant for

the Chinese buyer, whereas only financial leverage is significant for the foreign buyer. Regarding merger characteristics, target listing status, SOE acquirer and stock payment have significant impact on mergers with Chinese buyers. However, only stock payment has an impact on mergers with foreign buyers. The momentum effect does not exist for mergers with Chinese buyers, but the trailing one-year CAR has a significant effect on mergers with foreign buyers.

In conclusion, financial factors, merger characteristics and previous performances each have very limited influence on short-term M&A performance. The impact of these variables on CARs is largest for Chinese domestic M&As, moderate for foreign buyer mergers in China, and non-existent for Chinese overseas mergers. These results indicate that although M&A activity is a significant driver of the acquirer's short-term performance, stock market investors do not pay significant attention to these factors in the short run, and most merger announcements are considered good news.

5.1.4 Long-term Multivariate Analysis

For the long-term factor analysis, I use one-year, two-year and three-year BHAR as the dependent variables and regressed them with different factors. Financial characteristics, momentum effect and merger characteristics show strong and consistent effects, but the specific factors are different than those in short run.

Tobin's Q shows a significant impact on the three-year BHAR for Chinese overseas mergers and foreign buyer mergers and on the one-year BHAR for Chinese domestic mergers. Market-to-book value has a significant influence on the one-year BHAR for Chinese overseas merger and foreign buyer mergers and on the two-year BHAR for Chinese domestic mergers. The effect of financial leverage on BHARs for Chinese overseas mergers is significant in all three years; leverage also has a significant effect on the one-year BHAR for Chinese domestic mergers. Market value is significant to only the one-year BHAR for Chinese domestic mergers. Market capitalization is insignificant. Therefore, financial factors do have explanatory power for long-term

performance. Leverage has a negative relationship with Chinese overseas mergers; Tobin's Q and market-to-book value have varied levels of explanatory power for the different subgroups. Market value and market capitalization are essentially unrelated to long-term performance.

Regarding the momentum effect, the trailing one-year BHAR has a positive relationship with Chinese overseas mergers, has a negative relationship with Chinese domestic mergers, and is unrelated to foreign buyer mergers. Trailing market return has a positive relationship with Chinese domestic mergers and a negative relationship with foreign buyer mergers. Trailing one-year CAR has a negative relationship with Chinese overseas mergers and with foreign buyer mergers but a positive relationship with Chinese domestic mergers.

In terms of merger characteristics, different factors have different impacts on different subgroups. Target public listing status has a significant positive effect on Chinese overseas mergers, but is unrelated to the other subgroups. Inexperienced buyers have a positive effect on foreign buyer mergers. Completed mergers have a negative effect on Chinese domestic mergers and a positive effect on foreign buyer mergers. Stock payment has a positive effect on Chinese domestic mergers and negative effect on the other subgroups. Merger type, the acquirer's SOE status, and an ultimate Chinese parent company are unrelated to long-term performance.

5.2 Conclusion

In this thesis, I reviewed past literature about M&As. The main motivations of M&As are to combine two firms to create synergy value, obtain proprietary assets, improve operating efficiency, achieve business diversification, and take advantage of deregulation. The results regarding post-merger performance vary in the literature due to the use of different data sets and methodologies. However, the general results show that targets are the significant winners in mergers and that they can create value

during the process, but the results regarding buyers are ambiguous. Possible reasons for the M&A paradox include behavioural reasons (such as the agency problem, hubris hypothesis and managerial herding) and poor cultural fit post-merger. Other researchers document the incomplete data and methodologies. Researchers are also interested in the factors that affect post-merger performance. These factors can be classified into two groups. The first group comprises neoclassical factors, including bid mood, form of payment, final completion status, economic disturbance, accounting ratios, capital liquidity, government policy and government ownership. The second group includes behavioural factors, such as market conditions, managerial behaviour and the momentum effect.

I also reviewed the past literature on M&As in China. China's economy started to grow in the late 1970s due to the implementation of the opening up policy; since then, it has played a more important role in the global economy. Because China is the second largest economic entity in the world, both foreign and Chinese market participants want to expand their businesses there. Therefore, Chinese domestic and overseas M&As have increased tremendously. Despite the flourishing Chinese M&A market, existing studies on Chinese M&As are scarce. Results regarding merger performance vary and are incomparable due to the used of different methodologies and data sets. In addition, China's unique market conditions, including the significant role played by SOEs, which control vast resources and have significant bargaining power, should be taking into consideration. In the methodology literature, I generally reviewed the event study method applied in the M&A area by different researchers and discussed the different methods used to calculate abnormal returns, potential data problems, and how to refine and improve the results.

I collected data for 1991 to 2011 from Thomson One Banker and Thomson DataStream and divided these data into three subgroups: foreign buyer acquires a Chinese target, which had a sample size of 225; Chinese buyer acquires a Chinese target, which had a sample size of 3461; and Chinese buyer acquires a foreign target,

which had a sample size of 1435. I performed a general descriptive statistics review of China's past M&A history. Then, I calculated the short- and long-term returns and regressed post-merger performance with independent factors including acquirer financial characteristics, unique merger factors and the momentum effect.

Over the past twenty years, all three subgroups passed through nearly identical phases due to the steady growth of the Chinese economy. From 1991 to 1995, the seed phase, there was little M&A activity overall, although the number of cases grew gradually. After 2000, M&As activity increased enormously through the pioneer, growth and boom stages. Due to the long-lasting boom economy, the Chinese market has not completed an entire cycle until now. Certain industries, such as the financial, real estate, and resource and energy sectors, have experienced substantial M&A activity due to the booming economy and deregulation. The primary countries for both foreign acquirers and foreign targets are neighbouring countries, highly developed countries, and resource-abundant countries.

I calculated abnormal return, CAR, and average CAR and BHAR in different time intervals for the three subgroups and offered possible explanations for the results. I also classified different groups based on payment method, acquirer ownership, previous merger experience, target status, merger type, final completion status, and target listing status. Certain groups experience significantly higher abnormal returns than other groups, and different subgroups exhibit significantly different returns.

For the multivariate analysis, I used different time interval CARs and BHARs as dependent variables. The independent variables were in three groups. The first group, acquirer financial characteristics, comprised Tobin's Q, market capitalization, market-to-book value and financial leverage. The second group encompassed acquirer, target and merger characteristics, including merger type, acquirer and target types, acquirer ownership, acquirer previous merger experience, payment method and final completion status. The third group relates to the momentum effect and includes

trailing three-year BHAR, CAR and market return. These factors have different impacts on different groups. In the short-term, financial factors, merger characteristics and previous performance have very limited effects on returns. The impacts of variables on CARs are largest for Chinese domestic M&As, moderate for foreign buyer mergers, and non-existent for Chinese overseas mergers. In the long run, these factors have more explanatory power.

This thesis makes contributions in five main areas. First, Chinese M&A activities are unique due to China's political and economic systems. However, previous researchers have paid little attention to the Chinese market, due to the incompleteness of the data and the short market history. Although several studies exist, the data sets and methodologies vary, which makes the results incomparable with those of other developed countries. In this thesis, I use Thomson One Banker M&A database and the Thomson DataStream database, which contain information on all listed-company M&As in China from 1991 to 2011, and conduct a general review of Chinese M&A activity during the past twenty years. I combined two database together to extend time interval and number of observation for Chinese M&A research. The increasing time interval, scope and numbers of the research sample can reflect the M&As market situations and tendencies more precisely.

Second, this paper divides the database into three subgroups (Chinese overseas mergers, Chinese domestic mergers, and foreign acquisitions of Chinese firms), and compares the results of these subgroups with each other. Most previous literature focuses on only one M&A subgroup rather than comparing them with each other to identify the different factors that affect post-merger performance. I compare the factors relevant to each subgroup and discuss whether these factors are national or universal in character.

Third, I consider certain unique factors in the study of Chinese mergers. For instance, state ownership is considered an important factor in these mergers, and the research

confirms that state ownership has significant explanatory power regarding post-merger performance. Moreover, I also consider the ultimate parents of foreign buyers. Typically, foreign buyers are defined as those that are registered overseas. However, in this paper, I consider whether the ultimate parent of a foreign buyer is a Chinese firm and use 'the ultimate parent is a Chinese firm' as a dummy variable, which demonstrates significant explanatory power.

Fourth, the paper combines certain explanatory factors to explain post-merger performance. It considers three groups of factors: accounting factors, merger characteristic factors and momentum factors. For accounting factors, in addition to the traditional Tobin's Q and financial leverage ratios, I include several relatively new factors, including market-to-book value and acquirer size, as control variables. Certain other characteristics, such as whether the target is publicly listed, previous experience, etc., are also taken into consideration. I also include momentum factors as independent variables to explain performance.

Fifth, I apply several new factors recently discussed by other researchers and find many differences compare these factors with the previous researchers finding in developed countries: For the Tobin Q ratio, the domestic short and long run performances have negative relationships with Tobin Q; For the stock payment method, the Chinese overseas mergers, the use of the stock payment method is significantly negatively related to long-term return; For the momentum effect, both Chinese overseas and domestic long term performance have ambiguous relationship with the monument effect; For the completed status, Chinese domestic long term performance is negatively related to the final completed status; For the state ownership, in Chinese domestic merger, the short run performance is negative related to the state ownership. These results are different with the past studies in developed countries.

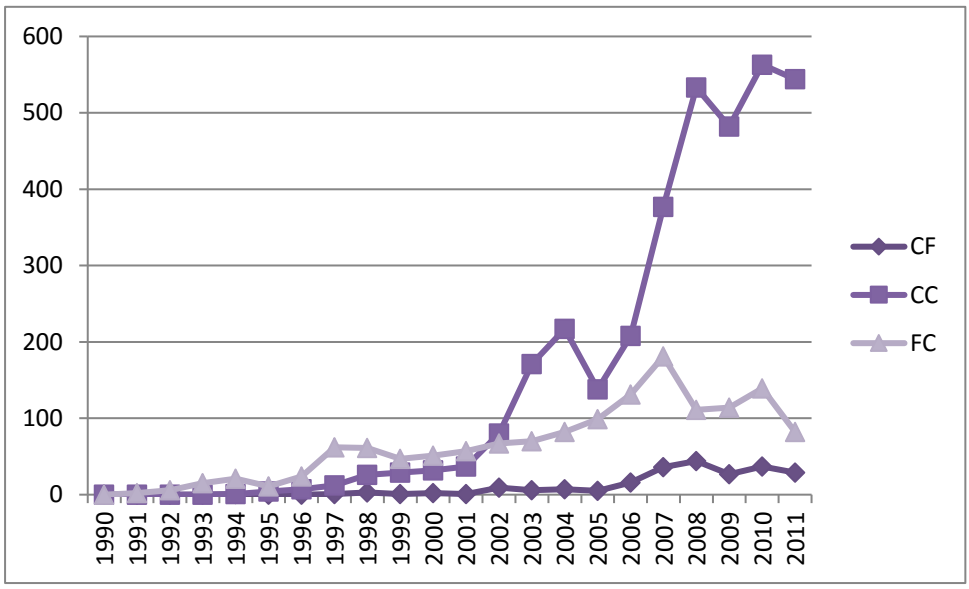
The results implies Chinese buyer and Chinese market have its' unique business

environment and investment psychology compare with the developed countries. The factors significant in developed countries may not have explanation power, even have negative effect, in Chinese market.

Regarding further research, because I use the same methodology and databases as previous studies of developed countries, if I collect the same data using the same criteria and same methodology, I could compare the results regarding post-merger performance and the factors that affect post-merger performance in China with whose of different countries.

FIGURE 7:The Deals of M&As related to China by Group

This Figure shows yearly data of the Chinese M&As from January 1991 to October 2010. The sample contains all the public listed acquires mergers deals related to China which deal value higher than 5 million. There are three sub groups: Chinese acquirer mergers foreign target (CF), Chinese acquirer mergers Chinese target (CC), and foreign acquirer merger Chinese target (FC). There are totally 5119 cases, the Chinese acquirer mergers foreign target deals were 225 cases; the Chinese domestic deals were 3461 cases; the foreign acquirer merger Chinese target were 1433 cases. These data collect from Thomson One Banker.



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