PERFORMANCE OF CROSS-BORDER MERGERS AND ACQUISITIONS (M&A'S) BY CHINESE FIRMS

by

Yea-Mow Chen
and
Chun-Tien Lin
San Francisco State University
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Contact Person: Yea-Mow Chen, Ph.D., Professor of Finance, San Francisco State University, 1600 Holloway Avenue, San Francisco, CA 94132, U.S.A. Tel: 1-415-867-4560, Email: ymchen@sfsu.edu

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Cross-border mergers and acquisitions (M&A's) by Chinese enterprises have become increasingly popular in recent years. The number of M&A deals, as well as the dollar amount involved, has been drastically growing, especially during the period from 2007 to Q12008. The cross-border activities slowed down a little during the global financial crisis, but fast growth resumed in 2009, totaled about $20 billion during the third quarter of 2009. As dictated by the strategic purposes, a majority of these foreign M&A deals were mostly energy and natural resource-related. A smaller numbers of these cross-border acquisitions were business oriented as Chinese companies had gradually recognized the needs of strategic expansion and internationalization. Some of these business acquisitions were for global market expansion (such as Lenovo's acquisition of the IBM PC division) or for gaining managerial expertise (such as China Investment Corporation's investment in Blackstone and Morgan Stanley).

For those acquisitions successfully completed, Chinese acquires were then running into the many hurdles of integration and making the acquisitions performing. This proved to be a difficult task. Even Lenovo, the company that acquired IBM's PC unit in 2005, had been force to reexamine the way it runs its business recently in the face of losses and drop in global market share. Many other acquisitions are facing the same difficulties, including China Investment Corporation (the China sovereign fund). CDC is still losing on the investment on Blackstone Group and Morgan Stanly as of today. In short, there has been a growing concern about the performance of Chinese outward cross-border M&A activities.

While there are may studies have been done on the cross-border M&As by Chinese firms, most of them focused on the nature of the acquisitions (such as energy-focused or specific geographical distribution) and the strategic decisions in making such acquisitions, very few has studied the performance of Chinese foreign acquisitions. The purpose of this study is to bridge the gap by analyzing the impact of cross-border M&A's on Chinese acquirers, from a stock holders' perspective.

In this study, Chinese outward M&A deals between year 2001 and 2008 are examined to identify any patterns of target choice, the overall impact on the financial performance of acquirers, and the determinants of such performance. Selected financial ratios before and after deal are calculated and compared to identify any changes on the financial performance. We then used the acquirer's stock price reaction around those acquisition announcements to gauge the effects of M&A's on value of acquirers. Two regression models are formulated to identify the possible drivers and determinants of the M&A performance.

The paper is organized as followed: Section I discusses the purposes of this study and describes the background of Chinese cross-border M&A's. Section II provides a literature review on those previous studies on M&A's in China, as well as performance evaluation of M&A's. Section III outlines the research methodologies and describes the estimation result. Section IV concludes.

Section I. Introduction

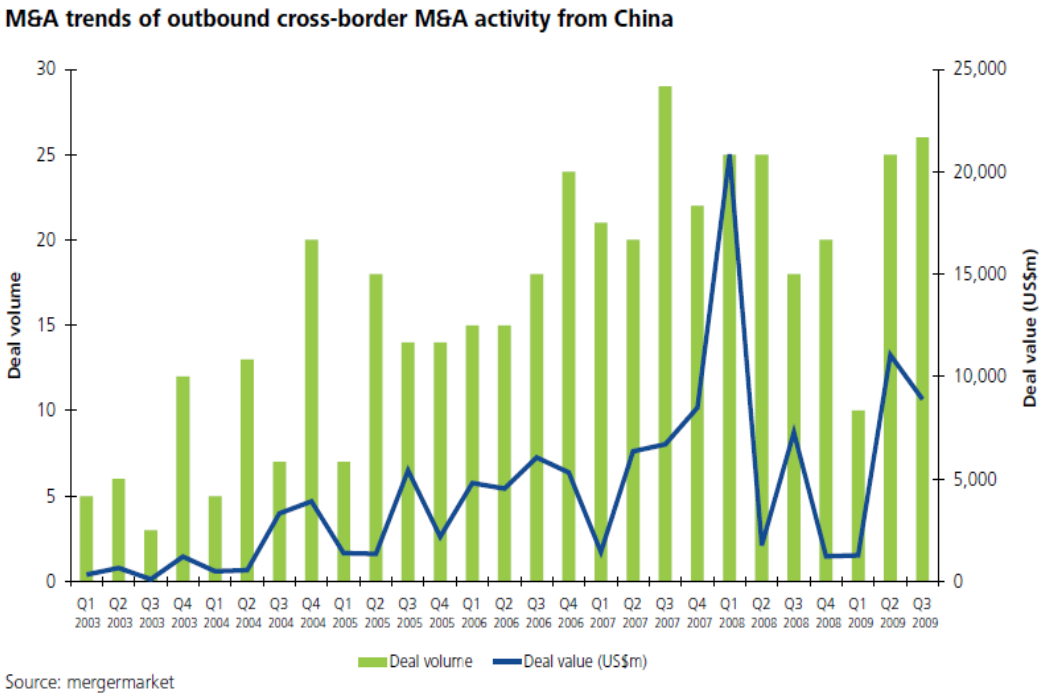
Over the past three decades, China has undergone a series of economic reforms since 1978 in accordance with the Open-Door policies. These reforms aimed at vigorously changing the structure of domestic industries, enhancing the integration of Chinese and global economy, and thus increasing the competitiveness of Chinese firms worldwide. As a result, Chinese firms have been playing an increasingly relevant and important role in outward foreign direct investment worldwide. The emergence of China as a source country of outward foreign direct investment is especially noteworthy amongst developing countries. According to the latest Statistical Bulletin of China's Outward Foreign Direct Investment reported by China's Ministry of Commerce (MOFCOM), Chinese domestic firms invested USD 43.3 billion overseas in 2009, representing a 6.5% of increase from 2008.[1] The growth in outward FDI increased dramatically in 2010, with a total investment of $7.52 billion in the first quarter of 1010 along, up 103.3% from 2009.

Numerous investment vehicles are utilized in Chinese outward foreign direct investment. In the earlier phases of the development of Chinese OFDI, some of the more prevalent vehicles include joint-ventures and establishment of overseas subsidiaries. However, in the recent years, one of the most notable developments has been cross-border mergers and acquisitions (M&A's) as a dominant means of investment overseas. UNCTAD (2000) stated that cross-border mergers and acquisitions provide the fastest means of international expansion. Based on World Investment Report released in 2005, China has overtaken South Korea, Japan, and

[1] Statistical Bulletin of China's Outward Foreign Direct Investment, MOFCOM 2009

Taiwan in terms of outbound M&A investment.[2]

Figure 1: The outbound M&A Investment by Chinese Firms (in USD million).



The expansion in Chinese cross-border M&A's is driven mainly by 3 factors. First, through cross-border M&A's, China secures the access to foreign energy resources and raw materials to support the high growth of the Chinese economic growth. Such M&A's in the targeted sectors is in accordance with or usually intimately connected to the government's strategies to pursue a national energy security agenda. Secondly, Chinese firms involve in outward M&A's in an attempt to acquire advanced technologies, brand names, distribution networks and managerial know-how. A classic example was Lenovo's acquisition of IBM notebook PC unit in 2005.

[2] World Investment Report, 2005.

Lastly, the keen competition in the Chinese domestic market also motivates the Chinese firms to seek opportunities outside the border. The problem of excessive competition, thinning margins and overcapacity are present in many industries in China. Investing overseas is regarded as a way to gain access to international local markets and potentially realize competitive advantages through production cost efficiencies (Deutsche Bank Research, 2006).

Although cross-border M&A's may be an effective way to achieve growth in the long run, a lot of the Chinese companies have struggled to achieve positive performance. Studies have shown that as many as 60-70% of M&A deals fail to deliver shareholder value and generally the outcome of these Chinese outbound M&A deals is mediocre at best. Some issues, including the political instability, weak legal infrastructure, and human rights in the target countries, raised doubts on the long-term profitability of theses resource-related investment. On the contrary, consumer-brand and technology companies have struggled to benefit from their overseas investments. Some examples are TCL's struggle to turn around the TV operations purchased from French TV producer Thomson, and the collapse of D'Long, a diversified Chinese company spanning food and financial services, soon after the foreign acquisition due to its inability to repay the mounting debt

In summary, how Chinese firms benefit from foreign acquisitions remains to be see. The purpose of this study is to provide some evidence on the effects of foreign acquisitions on Chinese firms based on financial performances.

Section II. Literature Review

There has been an extensive research on the merger and acquisition activities. Most studies focus on the evaluation of the pre- and post-acquisition performance in both short and long run. Numerous studies are also conducted to examine the possible determinants of M&A performance by using different hypothesis. Few studies, however, are dedicated to research on the impact of cross-border M&A activities on Chinese firms, based upon financial statistics.

Measuring the performance of M&A deals has been a difficult problem for many researchers. Scholars have used different techniques in the form of ratio analysis and comparative analysis to identify the effects of M&A on acquiring companies. Rao and Sanker (1997) found that there was a significant improvement in liquidity, leverage, and profitability for acquiring firms. A majority of the acquiring firms were found to have some meaningful synergies. In addition, the return on capital and return on total assets were increased significantly. The risks, measured by variability in the earnings, of pre-merger firms were found to be higher than that of post- merger firms (Agundu and Karibo, 1999). M&A activities were also identified to improve the overall operational efficiency of acquirers at a significant level. On the contrary, some studies revealed a mixed or negative impact of M&A deals on acquirers' performance. Pawaskar (2001) found that M&A did not result in improved performance or excess profit for the acquiring firms. Instead, the only significant gains were through an increased leverage of the acquired firms. In another study with ratio analyses, earning to equity ratio, liquidity ratio, and size ratio, were founded to have positive effect on the for the targets, whereas pre-tax profit turned out to be significantly negative (Renganathan, 1995).

Early empirical studies can be categorized into analyzing the performance effects in the short term and in the long term. For short-run effects, it was found that the shareholders of target typically received large positive returns while the acquiring firms only gained tiny positive abnormal returns around the date of acquisition announcement. Researches documenting such findings include Jensen and Ruback (1983) and Asquith (1983) for M&A cases in the US, and Draper and Paudyal (1999) and Sudarasanam et al. (1996) for those in the UK. In the long-run, however, it is suggested that most acquiring firms under-performed the market, reporting negative abnormal returns. Aggrawal et al. (1992), Loughran and Vijh (1997), and Mitchell and Stanford (2000) for the US, Higson and Elliot (1993) and Gregory (1997) for the UK, and Ikenberry et al. (2000) for Canada all came to the conclusion that the abnormal returns were still negative three years after the acquisitions, although they not significantly different from zero.

There were only a handful studies on the performance of Chinese outward cross-border M&A's. Tuan et al. (2007) examined the profitability of 22 tender offer bids in China and found that the cumulative abnormal return of targets for voluntary tender offers is significantly positive from day -30 to announcement day and significantly negative from day 0 to the resolution day. Wang et al. (2007) analyze the strategic motivation and performance of Chinese cross-border merger and acquisitions of 27 deals with the acquiring firms being listed on the Shanghai and Shenzhen Stock Exchange for the period of 2000-2004. These studies found that cross-border M&A's in China are primarily motivated by the desire to increase market share, enter new markets for diversification, and obtain foreign technology of resources. They also found that cross-border M&A's created value for acquiring firms around acquisition. Chi et al. (2008) examined the performance and characteristics of acquiring firms in the

Chinese stock market. They found significant positive returns before and upon the M&A announcement, but with insignificant long-run abnormal returns. Their research also showed that political advantage, the power balance of shareholders, and payment of cash or stocks have significant wealth effects.

Section III. Research Methodologies & Estimated Results

3.1. Some Descriptive Analysis

The data sample of Chinese cross-border M&A deals was collected first from websites that provide M&A news, information, and updates, such as those of Zero2ipo Group (www.zero2ipo.com.cn), and the Chinese Mergers & Acquisitions Association (www.ma-china.com). Only M&A cases that satisfy the following criteria are included (1) Chinese cross-border M&A acquisitions over the period from 2002 to February 2008;[3] (2) deals were completed; (3) either the acquiring firm or the target is a public listed company with stock prices and financial statements available. Data and key financial ratios were collected from the following websites: Yahoo Finance (finance.yahoo.com), Sina Finance (finance.sina.com,cn), and Finance Field (www.jrj.com.cn). Annual financial statements were obtained from the official websites of the companies.

Our database comprises 42 cases with 31 Chinese acquiring firms involved. The companies included in the sample, with the name of acquiring and target firms, year of acquisition, dollar size, acquired firm country, and acquired firm industry, are listed in Appendix 1. Table 1 below summarized the features of all 42 cases according to the industry classification, year deals took place, geographic region of the target companies, type of transactions, acquirer's prior cross-border M&A experience, and the cash value involved in the deals. The tables below provide some statistics describing the nature of Chinese outward cross-border M&A activities.

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[3] Deals occurred after February 2008 were eliminated from sample to ensure stock prices are available one year after mergers or acquisitions.

Table 1. Characteristics of sample in the study (N=42)

1.1: Industry Classification of Acquired Companies

Industry	**No. of Cases**	**Percentage**
Banking & Finance	10	23.81%
Energy	10	23.81%
Consumer Electronics	5	11.90%
Automobiles	4	9.52%
Manufacturing	4	9.52%
Chemical	3	7.14%
Telecommunications	2	4.76%
Transportation	2	4.76%
Clothing	1	2.38%
Medical	1	2.38%
Total	42	100%

1.2: Year M&A deals take place

Year of M&A	**No. of Cases**	**Percentage**
2002	3	7.14%
2003	2	4.76%
2004	3	7.14%
2005	6	14.29%
2006	9	21.43%
2007	14	33.33%
2008	5	11.90%
Total	42	100%

1.3: Country/ Region of Target Companies

	Country/Region	**No. of Cases**	**Percentage**
US & Canada	US	11	26.19%
	Canada	4	9.52%
Asia	Korea	2	4.76%
	Indonesia	2	4.76%
	Singapore	2	4.76%
	Hong Kong & Macao	2	4.76%

	Philippines	1	2.38%
	Tajikistan	1	2.38%
	Pakistan	1	2.38%
Europe	Germany	3	7.14%
	France	3	7.14%
	UK	3	7.14%
	Netherlands	2	4.76%
	Italy	1	2.38%
Other	Australia	2	4.76%
	South Africa	2	4.76%
	Total	42	100%

1.4: Type of Transaction

Type of Transaction	**No. of Cases**	**Percentage**
Acquisition of Asset	19	45.24%
Merger	2	4.76%
Acquisition of Stakes: 0%-25%	10	23.81%
Acquisition of Stakes: 26%-74%	3	7.14%
Acquisition of Stakes: 75%-100%	8	19.05%
Total	42	100%

1.5: Whether the Acquirer have previous cross-border M&A experience

Prior Cross-Border M&A experience	**No. of Cases**	**Percentage**
Yes	16	38.10%
No	26	61.90%
Total	42	100%

1.6: Cash value of each transaction involved (in US$ million)

Value of Transaction	**No. of Cases**	**Percentage**

(US$ million)		
<100	9	21.43%
101 - 200	7	16.67%
201 - 500	7	16.67%
501 - 1000	5	11.90%
1001 - 3000	5	11.90%
>3000	4	9.52%
undisclosed	5	11.90%
Total	42	100%

Ratio Analysis

To measure the impact of M&A on the financial performance of acquiring firms, the financial data were collected for the year before and after the acquisition (pre- and post- deal) and a comparison of the ratios was made to determine if a change in performance is present.

Five financial ratios were grouped into five and Comparisons were made on the performance a year before the acquisition and one year after. These five groups of financial ratios are:

1) Liquidity Ratios: working capital and current ratio;
2) Operating Efficiency Ratios: operating income and operating profit margin;
3) Overall Operating Efficiency: earnings before interest and income (EBIT);
4) Return to Shareholders: return on equity (ROE) and earnings per share (EPS);
5) Solvency Ratio: debt to equity ratio.

The comparison of ratios was summarized below in Table 2. For each ratio, the table shows the percentage of companies in the sample that had their ratio increased after the

acquisition and the average percentage change.

Table 2: Ratio analysis of the M&A cases

Measurement	Ratio	% of companies with increased ratio	Average % change of ratio	No. of cases in the sample
Liquidity	Working Capital	44.12%	227.72%	36
	Current Ratio	41.18%	2.72%	36
Operating Efficiency	Operating Income	60.00%	85.53%	37
	Operating Profit Margin	37.14%	52.71%	37
Overall Efficiency	EBIT	62.16%	74.98%	39
Return to Shareholders	ROE	50.00%	9.92%	40
	EPS	54.05%	38.04%	39
Solvency	Debt-to-Equity ratio	52.63%	40.46%	40

The table shows that only about half of the Chinese acquirers had an improved performance in the year after an M&A based on the 5 measurements.

3.2. The Short-Run Impact of an Outward Cross Border Acquisition

The short-run impact on the Chinese acquiring companies engaged in cross-border M&A's were assessed in a standard event-study methodology framework. The event-study approach assumes that the financial markets are efficient and the share prices adjusted itself instantaneously once related information is made available to the public. As part of the market models, the commonly used event study methodology as proposed by Fama (1976) compares actual stock prices as impacted by the announcement of an acquisition with the stock prices without being impacted by the acquisition. The projected stock prices without being impacted are to be projected

from historical prices assuming a normal course that stock prices will follow. The difference between the actual stock price and the projected stock price represents the abnormal returns caused by the announcement of an M&A activity. It is common to denote the day of announcement of an M&A as 0 and the number of days before and after the deal is denoted –T and +T, respectively. In this study, several short event-time windows were used for measuring the impact of an acquisition announcement on the stock performance.

With the market model, the following regression model is used to estimate the alpha and beta of each firm in the sample:

$$R_{it} = \alpha_i + \beta_i x R_{mt} + \varepsilon_{it}$$

where R_{it} is the actual return rate of company i at time t, defined as

$$R_{it} = \frac{P_{it}}{P_{it-1}} - 1$$

, R_{mt} is the rate of return on market portfolio at time t, or

$$R_{mt} = \frac{R_{mt}}{R_{m,t-1}} - 1$$

and ε_{it} is the random error term.

For this study, the Hang Seng Index was used as the market portfolio for stocks listed in Hong Kong stock exchange, and SSE Composite Index for stocks listed in the Shanghai and Shenzhen Stock Exchange. Alpha (α_i) and beta (β_i) in the regression model are coefficients to be estimated, representing the historical relationship between

the return on individual security and that of the market. These were estimated with return data for the period from day-160 to -21 prior to the event. The abnormal return, the difference between the actual return and the expected return, is then calculated as:

$$AR_{it} = R_{it} - (\alpha_i + \beta R_{mt})$$

The daily average abnormal return (AAR_t) and the cumulative average abnormal return (CAR_t) for firm i over any event window are then calculated as follows:

$$AAR_t = \left(\sum_{i=1}^{N} AR_{it}\right) / N \quad ; \quad CAR_t = \sum_{t=0}^{n} AAR_t$$

The short-term market performances of acquiring companies for several different event-time windows are presented in Table 3. Figure 2 presents the average abnormal return (AAR) and cumulative abnormal return (CAR) across all acquiring firms. Table 3 shows a significant and positive average CAR at 1.76% for the three day event window (-1, +1). One day after the announcement, the AAR averaged 1.66 at a 1% significant level (t =3.02).[4] The result from both AAR and CAR suggested that the announcement of cross-border M&A in Chinese firms created a positive, although small, wealth effect for the acquiring firms in the short-run. The finding that the market reacts positively to M&A announcements is consistent with some of the earlier studies such as Morck and Yeung (1992), and Wang et al. (2007). For longer event windows, the abnormal return across 40 days, or (-20, +20), around the announcement was not significantly different from zero, ranging from 1.65% to -1.02% for the days within the window. Before the announcement, the daily returns were negative for 6 out of 20

[4] To conserve space, the result AAR is not included in the paper.

days; while after the announcement, the returns were positive 11 out of 20 days. Overall, these Chinese acquiring companies had a positive CAR of 4.16% on average.

Some explanations on the positive abnormal returns were provided by earlier researchers. These include the arguments that cross-border M&A's provide integration benefits of internalization, synergy, risk diversification, and, as a result, create wealth for the shareholders of these Chinese acquiring companies. The theory behind positive returns from cross-border M&A's is premised on the fact that companies engage in cross-border transactions in foreign markets for the purpose of exploiting the market imperfection with the specific resources that a company possesses (Buckley and Casson, 1976; Wang and Boateng, 2007). The positive returns here indicate the optimistic response of investors to M&A activities. Investors may have viewed such investment as an opportunity for a company's growth or an opportunity to better utilize its resources. Furthermore, Most of the cross-border investment decisions are influenced by the policy of the state government, instead of merely based on the company's discretion. The process could have ensured the investor's confidence towards the company's outward M&A's and thus increase the return on shares.

Table 3: Average Cumulative Abnormal Return (CAR) of the Chinese Acquirers around M&A Announcement[5]

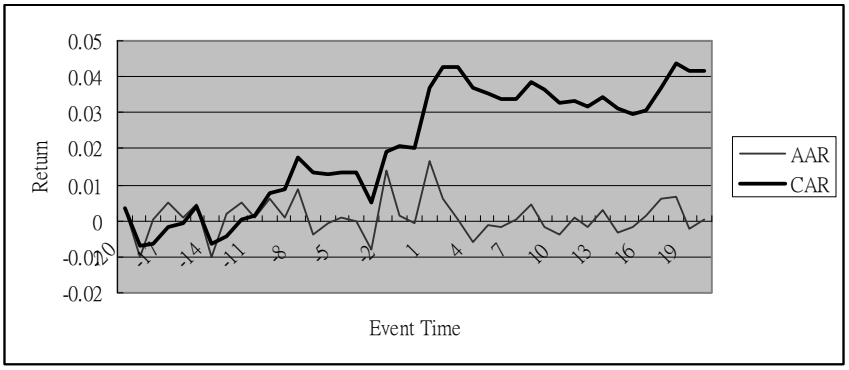
Event Time	Average CAR	t-test
(-10, -1)	1.917%	1.16
(-2, +2)	3.762%	2.62 **

[5] Event windows (-20, -1), (1, 20), (1, 5), (-5, -1), (-5, 5) are also calculated.

(-1, +1)	1.766%	2.08 **
(0, +1)	1.599%	2.36 ***
(0, -2)	1.501%	1.52
(+1, +10)	1.257%	0.58
(-10, +10)	3.114%	1.17

*, **, *** indicates statistical significance in 2-tailed tests at level of 10%, 5%, and 2%, respectively.

Figure2: AAR and CAR for event window (-20, +20)



3.3. Determinants of M&A Performance

The previous section documented the impact of cross-border M&A announcments on the stock price returns of Chinese acquirers. In this section, the characteristics of these Chinese acquirers and foreign targets were investigated in order to examine the possible determinants of their financial performance.

Explanatory Variables

There have been extensive studies on the determinants of the share returns due to M&A activities, mostly based on the experiences of US or European stock markets. Although there were variations on the determinants found by different studies, the variables that are generally affecting the returns of acquiring companies include level of ownership by management, cash position, leverage of a company, Tobin's Q,

industry relatedness between acquiring and target firms, payment methods and relative size of the target to bidder. Nevertheless, some of the above-mentioned determinants may not be applicable to this study due to the special characteristics of cross-border Chinese M&A deals. For example, since most of the Chinese cross-border M&A's were motivated by market expansion and obtaining resources and technology[6], the Chinese acquisitions were mostly concentrated in a few industries and a few locations for their foreign targets. Most of the Chinese M&A deals were paid for with cash or stock-for-stock, a unique characteristic which is different from those cross-border acquisitions by other countries.

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The level of state ownership of a Chinese firm has been also found to be related to its financial performance. A recent study by Chen et al. (2008) suggested that the operating efficiency varied across the different types of controlling shareholders. Sun and Tong (2003) scrutinized the performance of 634 State-owned enterprises listed on Chinese stock exchanges upon privatization. They discovered a negative performance relationship with the state ownership, but a positive relationship with the legal-person ownership.

Based on the literature stated above, we specified a market model to take into account the different ownership structure for determining the influence on the performance of M&A deals. To measure the ownership by the government or government entities, the percentage of state-owned shares over total shares before M&A was calculated for each Chinese acquirer. The percentage of legal-person shares, the shares held by a corporation, was also examined. Consistent with Sun and Tong (2008), we assumed

[6] The motivation of cross-border M&A's by Chinese firms was discussed more in details in the Background section of the paper.

that the state ownership had a negative effect on M&A performance, while the corporation ownership was shown to have a positive effect.

The free cash flow theory by Jensen (1986) states that many acquirers performed well financially before an M&A. If the investors are confident about the management's decision of a M&A deal as a way to improve the performance of the company, there should be an inverse relationship between the change in share value and the financial performance before M&A. The profitability of Chinese acquiring company in the year before M&A was used as a proxy for the financial performance.

Chi et al. (2008) examined the level of corporate governance influence the change in share value. They took the shareholding of the second to tenth shareholders divided by the shareholding of the top shareholder and found a significant positive impact on share returns. In this study, a similar test is carried out to identify the "dilution of shareholding." A weak dilution would indicate that a majority of the company is controlled by the top shareholder, which can lower the conceived rationalization of M&A decisions and the value of acquirers.

KPMG (2007) released a study on the driving factors of M&A success, based upon 510 corporate deals. Their main findings include, 1) acquirers and targets with low P/E ratios resulted in the most successful deals; 2) acquisitions by smaller acquirers (measured by market capitalization) were more successful than those by larger acquirers; 3) acquirers that had been acquiring for the last two years prior to an acquisition tended to perform better. In the study, I examine the three variables to see if a relationship exists between those and the M&A performance. For 1) and 2), P/E

ratio and market capitalization of acquirers were used as proxy, respectively.[7] As for the presence of previous deals, we used a dummy proxy for the prior M&A experiences, where 1 indicates yes and 0 no.

A total of 7 hypotheses were tested in this study:

H1: A negative relationship between the state ownership and the returns upon acquisition for acquirers.

H2: A positive relationship between the legal person ownership and the returns upon M&A for acquirers.

H3: A negative relationship between the profitability before M&A and the returns upon M&A.

H4: A positive relationship between the shareholding dilution and the returns upon M&A.

H5: A negative relationship between the P/E ratio and the returns upon M&A.

H6: A negative relationship between the market capitalization (size) of acquirer and the returns upon M&A.

H7: A negative relationship between acquirer's previous cross-border M&A experience and the returns upon M&A.

A regression model, as described below, was formulated for a cross-sectional analysis, which would take into account not only the variables but also the relationship amongst all variables.

[7] P/E ratio and market capitalization data are obtained from the annual report of the year prior to M&A.

CAR_t = β_1 state-ownership + β_2 legal-person-ownership + β_3 profitability + β_4 shareholding-dilution + β_5 P/E ratio + β_6 market-cap + β_7 experience + e

where the dependent variable, CAR_t, is the cumulative abnormal return over (-3, +3) period and e is a random error term. The independent variables are 1) the percentage of state-owned shares; 2) the percentage of legal-person shares; 3) the profit of acquirer in the year prior to M&A deal; 4) shareholding dilution- total shares held by the 2nd to 10th largest shareholder divided by shares held by the 1st largest shareholder; 5) P/E ratio of acquirer; 6) market capitalization of acquirer; 7) dummy variable to show whether acquirer has previous cross-border M&A experience. 1-yes; 0-no.

Empirical Results for the Acquirers

The empirical result of the cross-analysis is presented in Table 4.

Table 4: Determinants of Acquirer's CAR over (-3, +3)

This table presents the regression results on the acquiring firms' market performance in the short run, defined as:

CAR_t = β_1 state-ownership + β_2 legal-person-ownership + β_3 profitability + β_4 shareholding-dilution + β_5 P/E ratio + β_6 market-cap + β_7 experience + e

Since it takes approximately 3 days for any announcement to take effects in the Chinese and HK stock markets, I use the market model cumulative abnormal returns (CAR_t) over three days before and after M&A as the dependent variable. The independent variable are the percentage of state-owned shares, the percentage of legal-person shares, the profit of acquirer in the year prior to M&A deal, shareholding dilution- total shares held by 2nd to 10th shareholder divided by shares held by the 1st

shareholder, P/E ratio of acquirer, market capitalization of acquirer and prior M&A experience (dummy).

Variable	**Coefficient**	**t-test**	
State-owned shares	-0.0973	-0.74	
Legal-person shares	0.1502	1.62	^
Profit before M&A	0.0000	-0.69	
Shareholding dilution	0.0729	1.84	*
P/E Ratio	-0.0013	-2.87	***
Market capitalization	-0.0002	-2.81	***
Previous M&A experience	-0.1476	-2.27	**
No. of observation	**33**		
Adj. R-square	**0.3673**		

*, **, *** indicates statistical significance in 2-tailed tests at level of 10%, 5%, and 1%, respectively.

^ Estimate significance just above the 10% level.

The table above shows that the estimated coefficient for the state-owned shares, although not significant, has a negative impact on the value of the acquirer while legal-person shares have a positive impact at above 10% significance level. Previous literature has found that state ownership in Chinese corporate are often inefficient and could not maximize the firm value. Although state ownership can provide better connections, it is not enough to eliminate the overall performance problem even with M&A activities. These state-owned enterprises lacked of overseas M&A experience and management skills. In addition, since most of the acquisitions occurred in the earlier years were made by larger corporations with higher state ownership and controls, the lack of expertise may have also contributed to the poor performance of

these M&A deals. On the other hand, companies with more legal shares tend perform better and benefited more from cross-border acquisitions.

The profitability before the M&A activity had nearly no effect at all on the returns of the acquiring firms. The estimated coefficients were small and not significant. The variable for the shareholding dilution, however, possessed some explanatory power. The positive relationship indicates that when the market power is more balanced, investors will be more confident about the M&A decision. In other words, investors in Chinese and Hong Kong stock market generally were more optimistic towards a cross-border M&A if the decision-making was not controlled by a small number of stakeholders.

Consistent with the findings by KPMG, acquirers with lower P/E ratio and of smaller market capitalization (size) tended to be more successful in these cross-border M&A deals, at the strong significant level of 1%. Acquiring companies with low P/Es might not be as tempting to engage in deals with higher risks since their stocks were undervalued in the market. Acquiring companies with high P/Es, which were more likely to have already overvalued stocks at the time of the deal, would have a more difficult time to further increase the value of their stocks after a transaction. Instead, they may see the stock price reversed back to industry norm over time in the long run. Another study conducted by KPMG (2006) may be able to explain why smaller Chinese acquirers perform better in cross-border M&A deals. The size of acquirers is usually correlated with other factors, such as the number of deals and P/E ratio. For example, in the KPMG study, large companies tended to do more deals and the lack of focus and due diligence might have hindered their chance of success. Also, smaller deals were found to be significantly correlated with fewer deals and lower P/E ratios

for the target companies. Lower P/E ratios and fewer deals, as discussed above, are factors correlated with more successful acquirers.

Lastly, at the 5% significance level, acquirers with previous M&A experience tended to have better performance than acquires engaging in M&A activities for the first time. Many analysts had pointed out that the poor performance in the early phase was partially caused by a lack of expertise in Chinese outward M&A's. With past cross-border M&A experience, these Chinese acquirers were able to negotiate for better deals and created synergies after the deal. Such potential is conceived by the investors and reflected on the price adjustment around M&A announcement.

Variables Pertaining Acquired Target

The post-acquisition performances of acquiring firms are often affected by the target firms' characteristics. Previous literature has concluded different factors of target firms that influence the M&A outcomes in different economies. Some of the examples are provided later in the section.

For most of the cross-border M&A deals in China, the targets were unlisted firms and as a result data collection was virtually impossible. Included in our sample, there were only 15 out of 33 targets either were listed or had some financial information available to the public. In this section, how the target firms' characteristics affecting the performance outcomes of foreign acquisitions was studied.

Hawawini and Swary (1990) investigate the diversification potentials of an M&A transaction, measured by the correlation of the stock returns of target and that of bidder

over the estimated event window. Since diversification lowers the risks, the lower the correlation coefficient, a higher risk reduction potential and smoother earnings are generally expected. Hence, the expectation of the lower risks and smoother earnings should create value and provide more stock returns.

The size of the target firm can have impact on the M&A performance. Hawawini and Swary (1990) documented that M&A's are more favorable to acquirers if the target is small relative to the acquirer. Zollo and Leshchinkskii (2000) also found that the size of acquirer has a significantly negative impact on the acquirer's M&A success. In this study, we followed these studies by assuming that although larger targets might potentially have greater effects or value on the acquiring firms, a smaller target might be easier to manage and to be integrated into the acquirer's operation.

The growth rate of a target prior to the M&A event has been identified as a driving factor of its success. Delong (2001) and Cornett et al. (2000) studied the growth focus of M&A transactions and found that those targets that were purely growth focused brought more value than those with other focuses, such as diversification. Therefore in this study, we included the growth rate of the target in the year prior to the M&A activity as one of the explanatory variables. Its effect was expected to be positive.

A profitability variable as measured by the return on equity (ROE) of target divided by that of the acquirer, is entered in the study. ROE is recognized as an important indicator used by market analyst to measure profit efficiency. A low relative profitability indicates that the acquirer is much more profitable than the target. Following the efficiency hypothesis by Pilloff and Santomero (1998) and Hawawini and Swary (1990), we expected that M&A transactions would be more successful if

acquirers are more profitable than targets. According to Banerjee and Cooperman (2000), acquirers may be able to realize efficiency potentials by transferring their superior management skills to the target assets. Following a similar line of arguments, transactions with a large cost efficiency differential are expected to have a higher value creation potential and are thus more successful. The cost efficiency is measured with the relative total operating cost divided by total assets.

The last variable in the cross-analysis model serves to capture the market performance of the target with its earnings per share (EPS). Jensen and Ruback (1983) and Hawawini and Swary (1990) consider the stock performance of a target as a proxy for the management quality of a target and that the acquisition of targets with a bad stock performance prior to a transaction creates significantly more value for the acquirers than the acquisition of targets with a better stock performance. Therefore, I expect that targets who underperformed in the stock market (with poor management) allows for transferring superior management skills and hence to create value. In other words, transactions should be more successful if targets had a lower EPS before M&A. Since the EPS data for targets in the sample are denominated in different currencies, all EPS are converted into Remingbi before integrating into regression model.

The 6 variables pertaining to the target companies discussed above are summarized in Figure 3. The regression model is expressed as:

CAR_i = β_1 correlation-of-stock-returns + β_2 logarithms-relative-asset-size
+ β_3 target–asset-growth + β_4 relative-ROE
+ β_5 relative-operating-cost-over-asset + β_6 target-EPS + e

where the dependent variable, CAR_i, is the cumulative abnormal return over (-3, +3) period and e is a random error term.

Figure 3: Summary of Target Variables

Variable		Description
Var1	=	Correlation coefficient between the stock market returns of the target and the stock market returns of the acquirers over the estimation period
Var2	=	Logarithm of total assets of the target divided by the logarithm of the total assets of the acquirer
Var3	=	Growth of total assets of the targets in the year prior to the announcement year
Var4	=	ROE of the target divided by the ROE of the acquirer
Var5	=	Total operating costs/total assets of the targets divided by the total operating costs/total assets of the acquirers
Var6	=	Earnings per share (EPS) of the targets

Empirical Result- Target

The empirical result of the cross-analysis on the M&A performance of acquirers is presented in Table 5 below. Significant results were found for explanatory variables 1, 3, and 5. Therefore, it can be concluded that cross-border M&A activities creates more value for the Chinese acquiring companies if (1) the correlation between the market returns of target and the market returns of acquirers are small, implying more potential for diversification and less risks; (2) the growth rate of target's total assets in the previous year prior to the year announcing M&A is higher; and (3) there's a greater relative cost efficiency for the target and acquirer. The result also indicates that selection of a right target play an important role on the success of cross-border M&A's by Chinese acquirers.

As explained earlier, the lower the correlation coefficient, the higher the diversification or risk reduction potential. When an M&A deal is announced, a better diversified transaction smoothens earning volatility and provides more certainty on stock return. Similarly, the diversification can have been perceived by investors in these Chinese acquiring firms as a predictable target of investment. In terms of the target asset growth, investors in the Chinese companies may have looked at the growth in the previous year and forecast the future growth potential of the target. A cross-border M&A deal will be more favorable if growth is considered to continue once the target is integrated into the acquiring firm. Lastly, a higher relative cost efficiency between acquirers and targets are perceived positively by investors. It implies the ability of the acquirer to utilize the resources and create value in the future and therefore can have influenced the investor's response upon M&A transaction.

Although the results were insignificant for explanatory variables 2, 4, and 6, the result shows that upon an M&A announcement, there was a positive relationship between the relative size of target and returns, a positive relationship between the relative ROE and returns, and a negative relationship between EPS of target and returns.

Table 5: Determinants of Acquirer's CAR over (-3, +3) using Target Variables

This table presents the regression results on the acquiring firms' market performance in the short run, defined as:

CAR_t = β_1 correlation-of-stock-returns + β_2 logarithms-relative-asset-size + β_3 target –asset-growth + β_4 relative-ROE + β_5 relative-operating-cost-over-asset + β_6 target-EPS + e

Since it takes approximately 3 days for any announcement to take effects in the Chinese and HK stock markets, I use the market model cumulative abnormal returns (CAR_t) over three days before and after

M&A as the dependent variable. The independent variable are correlation between the stock market returns of the target and the stock market returns of the acquirers, logarithm of total assets of the target divided by the logarithm of the total assets of the acquirer, growth of total assets of the targets in the year prior to the announcement year, ROE of the target divided by the ROE of the acquirer, total operating costs/total assets of the targets divided by the total operating costs/total assets of the acquirers, and earnings per share of the targets.

Variable	**Coefficient**	**t-test**	
Correlation with stock market	-0.0135	-1.33	
Relative total asset (log)	0.8982	1.19	
Growth of asset- target	0.0499	2.11	**
relative ROE	0.1358	0.90	
relative operating efficiency	0.0135	2.03	**
EPS of target	-0.0252	-1.27	
No. of observation	**15**		
Adj. R-square	**0.4353**		

*, **, *** indicates statistical significance in 2-tailed tests at level of 10%, 5%, and 1%, respectively.

Section IV. Conclusion

The contribution of the paper is to examine the performance of cross-border mergers and acquisitions by Chinese firms and to identify the determinants and drivers of such performances. A total of 42 M&A transactions between 2002 and 2008, where a Chinese company acquired either assets or stocks, are utilized to test for the pre- and post- M&A performance, value change for acquirers, and conduct cross-sectional regression analysis. Due to the very small sample size for targets, two regression models are used for two sets of potential drivers- with and without characteristics of targets.

With comparative ratios, only about half of the acquirers have improved financial performance with respect to liquidity, operating and overall efficiency, returns to shareholders, and solvency. Thus, cross-border M&A activities do not necessarily create synergy or add value for the Chinese acquirers. Next, the abnormal returns were measured across different event time windows using the market model method. It is found that investors generally respond positively to the cross-border M&A deals and the share price of acquirer move upward upon announcement. The average abnormal return of Chinese M&A's in the long-term (20 days prior to and 20 days after the announcement) is at an insignificant 4.16%.

Lastly, through the cross-sectional analysis, several determinants and drivers are identified to have influence on the performance of Chinese acquirers. It is found that: 1) the power balance between the second to tenth shareholders and the top shareholders has a significant positive impact on the acquirer's returns because better corporate governance may be anticipated; 2) acquirers with lower P/E before M&A are more likely to be successful in cross-border M&A; 3) smaller acquirers, based on market

capitalization, performs better in cross-border M&A deals; 4) previous cross-border M&A experience impacts the returns positively. In the second regression model, where target variables are taken into accounts, it is found that cross-border M&A activities creates more value for the Chinese acquiring companies if 1) the correlation between the market returns of target and the market returns of acquirers are small, implying more potential for diversification and less risks; 2) the growth rate of target's total assets in the previous year prior to the year announcing M&A is higher; and 3) there's a greater relative cost efficiency for the target and acquirer.

The study concluded an overall small, yet positive wealth effects for Chinese companies who underwent cross-border M&A's. It may be helpful to Chinese companies who intend to engage in M&A transactions because the study found that the performance in stock market can at least be partially estimated. It may also be helpful to investors to forecast the value of their investment in Chinese stock market.

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Appendix 1: Listing of all companies in the sample used in the study

Year	Acquirer company	Target company	Country of Target	Cash involved in Transaction	Target firm's Industry
2002	Wanxiang	UAI	US	$2.8m	Automobiles
2002	TCL	Schneider	Germany	Euro 8.2 m	Consumer Electronics
2003	BOE	Hydis	Korea	$380m	Consumer Electronics
2003	Wanxiang	Rockford Powertrain Inc.	US	undisclosed	Automobiles
2004	Saicgroup	Ssangyong	Korea	$ 500 m	Automobiles
2005	Lenovo	IBM PC group	US	$650 m	Consumer Electronics
2005	Zijin	Pinnacle Mines Ltd.	Canada	C$1.95 m	Energy
2005	TCL	Govedio	US	$10m	Consumer Electronics
2005	China nat'l Petreleum Corp Int'l	PetroKazakhstan Inc (PK)	Canada	$ 4.18 b	Energy
2006	China nat'l Bluestar corp.	Adisseo	France	$518.7 m	Chemical
2006	ChemChina	Quenos	Australia	$150 m	Chemical
2006	Zijin	RidgeMining	South Africa	GBP 8.2 m	Energy
2006	CITIC reources holding	Indoesian oil field	Indonesia	$97m	Energy
2007	China nat'l Bluestar corp.	Rhodia	France	undisclosed	Chemical

2007	CITIC	Kazakhstan oil assets of Canada's Nations Energy Co.	Canada	$1.9 b	Banking & Finance
2007	China Mobile	Paktel	Pakistan	$ 284m	Telecom
2007	Zijin	Monterrico	UK	$150m	Energy
2007	CIC	Blackstone	US	$3b	Banking & Finance
2007	China Development Bank	British Bank Barcaleys	UK	$300m	Banking & Finance
2007	Zijin	ZGC	Tajikistan	RMB $5.05 m	Energy
2006	Industrial and Commercial Bank of China	Bank Halim	Indonesia	undisclosed	Banking & Finance
2007	Industrial and Commercial Bank of China	Standard Bank	South Africa	$5.6 b	Banking & Finance
2007	Ping An	Fortis	Netherlands	Euro1.8 b	Banking & Finance
2007	Youngor	Kellwood	US	$120m	Clothing
2007	CIC	Morgan Stanley	US	$5b	Banking & Finance
2008	Chalco	Rio Tinto Group	UK	$14.05 b	Energy
2006	Bank of China	Singapore airplane rental company	Singapore	$965m	Transportation
2007	Haitian	Zhafir	Germany	Euro 6.5m	Manufacturing
2006	China Construction Bank	Bank of America (Asia) Ltd.	US	HK$ 971m	Banking & Finance

2007	China International Marine Containers	Burg Industries	Netherlands	Euro 108m	Manufacturing
2004	Huaneng	OzGen	Australia	$227 m	Energy
2008	MR	Datascope(dscp)	US	$202 m	Medical
2002	Hutchison Whampoa	TIHC	Philippines	$400 m	Transportation
2005	QJ Motor	Benelli	Italy	Euro 6.93m	Automobiles
2005	China Mobile	telepone unit of CRC Ltd.	Hong Kong	HK$3.384 b	Telecom
2006	Haier	Sanyo	Japan	undisclosed	Consumer Electronics
2006	Suntech	MSK	Japan	$107m	Energy
2008	Industrial and Commercial Bank of China	Seng Heng Bank	Macao	$583m	Banking & Finance
2007	North Heavy Industries Group	NFM	France	undisclosed	Manufacturing
2008	China MinSeng Banking Corp.	United Commercial Bank	US	$145m	Banking & Finance
2004	ShenYang Machine Tool Group Co.	Schiess AG	Germany	$9.67 m	Manufacturing
2008	Huaneng	Tuas Power	Singapore	RMB $2.1b	Energy