

# MARKET REACTIONS TO CHINESE OUTWARD FOREIGN DIRECT INVESTMENTS

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**Abstract:** This paper comprehensively examines whether Chinese cross-border M&As create value for Chinese bidding firms and whether stock markets around the globe react consistently to those M&As. Results indicate that, in general, markets respond positively to Chinese cross-border M&A deals, but that these reactions are not consistent among geographically dispersed markets. While stock markets in Europe, the US, Asia, and China present comparable returns, the American over the counter market (OTC) reacts significantly different from all the major markets with abnormally high stock returns upon the time of the deal announcement.

**Key Terms:** China, Cross-Border Mergers and Acquisitions, Shareholders' Value, Market Reaction

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## **INTRODUCTION**

Empirical research on cross-border mergers and acquisitions (M&As) has been extensive over the past decade and has conveyed a substantial amount about their trends and characteristics. Nevertheless, an understanding of whether and why international expansion creates shareholder's value to the participating firms remains limited. This study contributes to the current research by investigating whether Chinese cross-border M&As create positive value for the shareholders of Chinese bidding firms. It subsequently analyzes whether stock markets around the globe react consistently to the Chinese cross-border M&As.

The implementation of the Chinese Open Door Policy in 1978 started the flow of FDI in and out of China, which since has been continuously growing. While in 2008 global foreign direct investment dropped by 20%, China's outward FDI close to doubled (UNCTAD, 2011). It is thus evident that emerging multinationals from China are becoming a sizable and rising feature in the global market and thus an appealing subject matter for a further research. Moreover, in February 2011 China officially became the world's second largest economy whilst consistently maintaining its high level of growth and development. For this reason an increase in Chinese outward FDI is to be expected in the near future. These factors combined with the scarcity of economic literature on the subject of china warrant further investigation.

To the author's best knowledge, this study is the first one to comprehensively examine the impact of Chinese cross-border M&As on the value of Chinese bidding firms listed both on the Chinese markets and elsewhere. For the purpose of this research market reactions to the Chinese cross-border M&A deals are assessed and compared among geographically dispersed markets in Asia, Europe, and the USA. Consequently, a noteworthy channel of analysis is introduced to allow for an in-depth analysis of Chinese investments abroad as well as global stock markets and their response to Chinese foreign expansion. Implications of this study are relevant to domestic and international investors in Chinese firms as well as corporate policy makers in China. Hence, greater insight will be given into the topics of growth in China and the development of its financial markets.

The opening section of this paper integrates insights from existing literature on the topic of cross-border M&A and shareholders' value to develop hypotheses pertaining to cross-border Chinese M&A and stock markets' reactions. This section is followed with a description of methodology and the reporting of empirical results. In the post hoc analysis section, the findings are compared with the extant acquisition literature and results are additionally elaborated. Finally, contributions of the results and directions for further research are provided.

## **2.0. THEORY AND HYPOTHESIS**

Over the past two decades cross-border M&As have developed into the most dominant form of foreign direct investments. The total transaction value has increased from 100 billion in 1990s to over 1,000 billion in 2010 (World Investment Report, 2010). Enhanced internationalization through cross-border M&As is often motivated by the value creation for shareholders of participating firms. Whether Chinese foreign M&A deals indeed create positive value for the shareholders of the acquiring firms is investigated in this paper at first.

Multiple theories support the hypothesis of value creation upon execution of a foreign M&A deal. The asset-exploitation perspective implies that cross-border M&As facilitate internalization of intangible and tangible resources which are otherwise difficult to trade through regular market or take a substantial amount of time to be developed internally (Vermeulen & Barkema, 2001; Shimizu et al. 2004). Servaes & Zenner (1994) show that cross-border ventures enable firms to benefit from the differences in tax regimes and permit exploitation of exchange rate movements. Diversification resulting from internationalization is expected to create value as it allows firms to diminish costs and risks of entering new markets while providing for less volatile returns for investors by diversifying a firm's portfolios across borders. Finally, the efficiency theory explains that synergies stem from foreign M&A deals and lead to economies of scale while allowing to pool resource (Trautwein, 1990). It is not a novel insight that UNCTAD (2000) indicated that cross-border M&A is the fastest and most efficient way to expand internationally, allowing for immediate access to the local networks of suppliers, client base, or marketing channels.

Nevertheless, there are arguments which show that foreign M&As might negatively affect shareholders' value. Increased agency problems, differences in politics, culture, business practices, or institutional constraints can pose barriers to cross-border M&As and consequently undermine the value of shareholders of the acquiring firms (Datta & Puia, 1995). For instance, the hubris hypothesis argues against increased shareholders' value for the acquiring firms suggesting that the value of target companies can be easily over-estimated leading to excessively high premium deal-related payments. In the long run, the shareholders' value for acquiring firms is damaged and decreases due to this (Sirower & Mueller, 2003). Most commonly the lack of complete market information about a target may cause bidder to overpay for the acquisition or to pay an unwarranted premium for a target just to enter a new market (McClain, Michel and Shaked, 1991).

Extensive research has been conducted both on the topic of domestic as well as cross-border M&As based on the experiences from developed nations. Country-specific studies most

commonly show that shareholders of target firms benefit from abnormal returns upon the announcement of a cross-border M&A deal (Franks et al., 1991; Schwert, 1996) while returns of the acquiring firms are more ambiguous (Campa & Hernando, 2004). Some studies report negative returns to shareholders of the acquiring firms (Servaes, 1991; Andrade et al., 2001) while others show zero or positive returns (Schwert, 1996; Mulherin & Boone, 2000; Gleason, Gregory & Wiggins, 2002; Block 2005). Yet, more up to date, non-country specific studies show consistent results and indicate positive short-term returns to the acquiring firms around the announcement dates of cross-border M&As. Chari, Ouimet and Tesar (2004) found that markets anticipate significant shareholders' value creation for both the acquiring and target firms when firms from developed countries acquire firms in the emerging markets. Bhagat, Malhotra, Zhu (2008) investigated cross-border acquisitions by emerging country firms and also found a positive and significant market response on the announcement day for the acquirers. Positive results are typically attributed to economic factors such as the creation of operational synergies, acquisition of access to strategic resources, or transfer of international corporate governance (Dos Santos, Errunza and Miller, 2008; Martynova and Renneboog's ,2008).

Studies on the Chinese FDI remain scarce. This is related to the limited availability of the Chinese data but most importantly due to the late development of corporate law and capital market in China. It was only after economic reforms in 1978 when publicly traded companies came into existence and various forms of enterprises got introduced to the Chinese marketplace. As a result of this, Chinese companies didn't begin expanding abroad till after the 1980s. Figure 1 illustrates the evolution of Chinese outward investments from year 1970 to 2009.

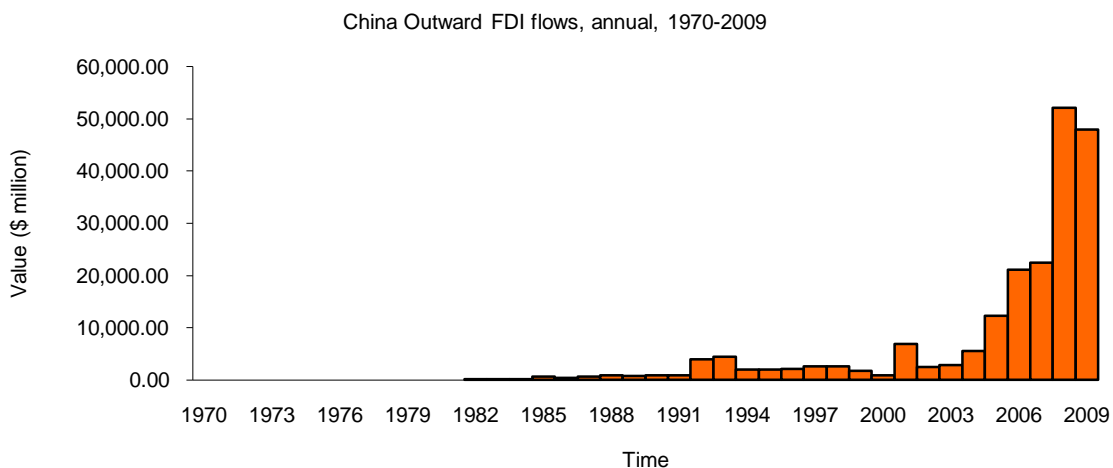


Figure 1. (Data Source: UNCTAD)

Initially, large state-owned companies such as SINOCHEM, CITIC, China Resources, and Capital Steel were involved in cross-border deals. Not till after 1990 did privately and collectively owned firms also start to expand internationally. More aggressive international expansion by Chinese firms began only after the year 2000. The sample of cross-border M&A deals used for this study dates back to the year 2000 and thus embraces a representative population of Chinese cross-border M&A deals up to date.

Few Chinese scholars have examined the case of domestic M&As in the Chinese market. Feng & Wu (2001) applied factor analysis and accounting data to introduce a function which evaluates corporate performance. No significant change in performance of participating firms was observed during the year in which the M&A occurred but the performance of the consolidated firm did improve in the year following the announcement of the M&A deal. Zhu & Wang (2002) analyzed 67 domestic M&A cases and found an improvement in the return on equity and assets for both firms participating in the deal. Event methodology was applied by Zhang (2003) and showed that domestic M&As create value for the target companies but have a negative effect upon financial performance and shareholders' value of the acquiring firms.

Only one comprehensive study on the Chinese cross-border M&As and their impact on the shareholders' value for the acquiring firms was found. Boateng et al. (2008) investigated 27 Chinese foreign M&A deals executed between the years of 2000 and 2004 to find positive returns around the announcement days for the shareholders' of the bidding firms. They explain that the primary reasons for Chinese firms to form cross-border M&As are: market development to allow for more rapid entry into the new markets, promotion of diversification as well as acquisition of more advanced technologies and resources from overseas. What significantly differentiates the study of Boateng et al. (2008) from this study is its scope. They only considered firms quoted on the Chinese stock markets, this study includes Chinese firms listed all around the globe. This enables for a more complete analysis and gives an insight for an examination of the differences in market reactions to Chinese cross-border M&A deals.

Acknowledging the results of the currently available research it is to be expected that foreign M&As by Chinese firms create positive value for the shareholders of the bidding companies. Finance theory further argues in favor of this expectation. It suggests that while fulfilling their responsibility to maximize the wealth of shareholders, rational managers should only undertake projects that provide for positive net present value (NPV). As firms are commonly valued as the sum of the undertaken net present value projects and only projects that create positive NPV are to be executed, the value of firms involved in expansionary projects is expected to increase.

Simultaneously, the announcement of such projects, including Chinese cross-border M&As, is expected to trigger positive stock price reactions.

As based on the findings in the economic and finance field the formulation of the first Hypothesis is as follows:

**Hypothesis 1:** Cross-Border mergers and acquisitions by Chinese firms generate positive abnormal stock returns around the deal's announcement time for the shareholders of acquiring Chinese firms.

Subsequently, a question arises whether stock market investors around the globe react alike to the Chinese cross-border M&As. To the author's best knowledge, this is the first study to examine differences in markets' reactions to Chinese foreign M&A deals. In this study, market reactions in Europe, the USA, Asia, China, and over the counter market in the USA are examined separately to look for possible differences in their responses.

Market transparency, corporate law governing markets, or subsequent types of investors in particular markets (private, institutional, or governmental) may constitute factors that impact market reactions and alter them between geographically dispersed markets. Also, 'irrational' factors cannot be ignored. For instance, investor's perception of Chinese expansion as dependent on where the investor resides: Europe, Asia, the USA, or China itself might influence stock prices for the Chinese bidding firms around the announcement dates.

While developed stock markets of Europe, the USA & Asia are expected to provide for similar results it is not straightforward whether the Chinese market and the over the counter market in the USA are to deliver results which go in line with the global markets' returns. The OTC market is characterized by a different market structure as compared to the major markets with an electronic trading platform rather than a typical trading floor, with less strict listing requirements. The Chinese market is a relatively new exchange established in the beginning of 1990's and different from capitalistic Western stock markets as it is primarily shaped by the political economy of the reform-era China (Cooper, 2003). Cooper argues that Chinese leaders aimed to create stock market institutions that would allow the state to maintain control over listed firms and to simultaneously prevent an uncontrolled expansion of the market-power. The newly emerged Chinese market remains underdeveloped and less liquid than the Western markets as well as more asymmetrical (Hou, 2007). The Chinese market has a different investor structure as compared to the more developed global markets with private and state shareholders dominating

the Chinese market and institutional investors dominating developed stock markets. An in-depth analysis of the OTC and Chinese markets follows in sections 6.1 and 6.2 of this paper respectively.

Despite the differences between the Chinese market, the OTC market, and the more developed markets, there are reasons to expect that no significant differences will be found among the reactions of those geographically dispersed exchanges. In the era of globalized financial markets investors are less restricted with respect to their investing decisions. Simultaneously, market information is increasingly more available, and markets are becoming more transparent with more standardized regulations. This all leads to a greater uniformity of stock markets around the globe and therefore more alike market reactions across the world in line with efficient-market theory. Efficient-market theory argues that markets act similarly upon the release of market information. Hypothesis 2 is formulated upon this theory and the postulation of globalized financial markets.

**Hypothesis 2:** As a response to Chinese foreign mergers and acquisitions stock markets around the globe react consistently, providing for insignificant differences in stock price reactions around the announcement times.

### **3.0. DATA**

To conclude on the market reactions to Chinese cross-border M&As this paper considers all the completed cross-border majority M&As, that result in acquiring a stake of 50% or more in the target firm, made by publicly traded Chinese companies and reported in the Thomson Financial database over the time period starting from January 2000 and ending in March 2011. A negligible number of cross-border deals recorded prior to this period makes the sample close to the actual population. Only majority acquisitions are held in the sample as those considerably prevail and, most concretely, are expected to provide for more significant results in the analysis of shareholders' value creation while giving the bidding firm effective control over the target firm. It is important to note that only the most dominant form of outward FDI, cross-border M&As, are analyzed here, this implies that other forms of outward FDI and types of foreign market entry are outside the scope of this study. The original sample of firms can be found in Appendix 1.

Few factual errors were observed in the database in terms of the nationality of target firms. Several of the targets were Chinese firms indicating a domestic M&A, which makes them irrelevant for the purpose of this study. These observations were thus removed from the sample. Companies for which SEDOL codes or share returns could not be retrieved are also excluded from the sample. Furthermore, two evident outliers were identified on the histogram (see



Appendix 2) and removed from the dataset. It is with an aim of upholding the practical relevance of this study that only the evident outliers are abandoned, while the majority of observations are retained in the sample despite their volatility as indicated by their standard deviations (see Tables 2-7). The two removed outliers are firms listed on the American over the counter market: China LianDi Clean Tech with stock returns of 1340% on the day following the announcement, and eWorld Interactive Inc with stock returns of 701% on the day prior the announcement of a cross-border M&A. As a result, the maximum value of share returns for the sample is found to be 141%, and sample minimum is -32%.

A total of 253 observations were obtained in the manner as described. Those observations correspond to share returns of Chinese firms around the announcement dates of 112 cross-border M&As deals. Since the majority of firms in the sample are simultaneously listed on few different exchanges, the number of observations is higher than the number of deals analyzed. Such a condition enables for a cross-market comparison of stock reactions to Chinese cross-border deals. A sample size of 253 is sufficiently large not to violate assumption of normality, which is typically a major concern in the event study methodology.

### **3.1. DATABASE**

As previously specified, Chinese foreign M&A deals and their announcement dates were acquired from the Thompson One Banker database. Thompson One Banker was found to provide the largest dataset and superlative compliance with other databases used for the purpose of this research. The search focus is primarily described by 'mergers and acquisitions' and 'acquiring majority interests'. This helped exclude transactions that are 'buyback', 'exchange offer', 'acquisition of assets', and 'recapitalization' in nature. 'Cross-border deal' and 'completed deal' flags are further assigned to the search criteria.

Detailed stock market information on Chinese firms was attained from the DataStream Navigator while daily share prices were obtained from DataStream compilation, an Excel based database. As according to the DataStream Navigator's outcome, the firms in the sample are quoted in Europe, the USA, and Asia. Subsequently, market reactions to Chinese cross-border M&As are assessed and compared between exchanges in those different locations.

#### 4.0. METHODOLOGY

To test the posted hypotheses a two-stage procedure is employed. Firstly, the impact of cross-border M&As on shareholders' value is assessed by the means of an event study methodology. Event study enables to determine whether abnormal stock price effects are to be associated with an announcement of a cross-border M&A (Hypothesis 1). Secondly, firms are divided into subsamples as according to the geographical location of a stock market where they are listed. A two-sample t-test is applied to conclude whether significant differences exist between reactions of the geographically dispersed markets to the Chinese cross-border M&As (Hypothesis 2).

#### 4.1. EVENT STUDY

Event study methodology is typically used to measure economic impact of a specific event. Its high academic value comes from the fact, that given rationality in the market, event studies have the power to immediately reflect any possible event on the price of a security. Recognizing the application of the event study and its usefulness for the short time-frame type of research, event study methodology is applicable to this research.

In this research, the event study is intended to assess the impact of the announcement of a Chinese foreign M&A on the share price for the bidding firm. Impact is measured in terms of abnormal returns, which are defined as actual stock returns minus expected stock returns (MacKinlay, 1997). For an event date  $\tau$  and a firm  $i$  abnormal returns are computed as follows:

$$AR_{i\tau} = R_{i\tau} - E(R_{i\tau} | X_{\tau})$$

Where  $AR_{i\tau}$ ,  $R_{i\tau}$ , and  $E(R_{i\tau} | X_{\tau})$  are respectively the abnormal returns, actual returns realized on the occurrence of the deal announcement for a firm  $i$  at time  $\tau$ , and normal or expected returns with  $X$  being the conditioning information for the normal return model. The normal return model is to forecast returns that would have been expected in the absence of the event (deal announcement). There are few ways of modeling normal returns ( $E(R_{i\tau} | X_{\tau})$ ) and the choices of models in other event studies have varied widely. Strong (1992) argued that the market model is the most popular benchmark. Franks and Harris (1989) used both the market model and the CAPM model, while Parkinson (1991) used only the mean-adjusted model. In this study the mean adjusted model (also known as constant mean return model) is applied. It is statistically basic but its results have proven to be alike those attained by the more sophisticated statistical models (MacKinlay, 1997; Brown and Warner, 1985). The constant mean return model allows for the development of a straightforward probabilistic model for share returns based on historical stock prices data (Zivot, 2001). Those incorporate not only the firm's performance but also market

performance. Overall, the constant mean return model provides for a sufficient statistical relevance for the purpose of this research.

The constant mean return model is defined by two relations:

$$R_{i\tau} = \mu_i + \varepsilon_{i\tau},$$

$$E(\varepsilon_{i\tau}) = 0, \text{var}(\varepsilon_{i\tau}) = \sigma^2\varepsilon_i$$

Where  $R_{i\tau}$  is an actual return of a stock for a firm  $i$  at time  $\tau$ ,  $\mu_i$  is a mean return of a stock for firm  $i$ , and  $\varepsilon_{i\tau}$  stands for an error term with an expectation zero and variance equal to  $\sigma^2\varepsilon_i$ . It is important to note that the constant mean return model assumes a stable mean return of a given stock price for a given firm. Given the selection of this specific return model, an estimation window needs to be defined to estimate model parameter  $\mu_i$  for the mean return. Here, the estimation window is 50 days long, ranging from 250 to 200 days before the announcement day for every firm in the sample. The window deliberately does not include the event itself to prevent the event from influencing the performance of the normal model parameter. The length of the estimation window, 50 days, is typical for the event studies. Some studies choose for longer estimation windows to ensure that within those estimation windows at least 50 observation will be attainable (Ahern, 2009; Aktas, 2003). For the purpose of this study, an estimation window of 50 days is sufficient since only firms for which daily stock prices are provided are included in the sample, which guarantees that no values are missing.

In the constant mean return model abnormal returns become equivalent with the error term (disturbance term) in the model. Thus, abnormal returns are calculated in the following manner:

$$AR_{i\tau} = \varepsilon_{i\tau} = R_{i\tau} - \mu_i$$

In the event study it is necessary to specify the length of the observation interval, an event window. Observations are daily, as daily share returns are used. A 21-days long event window is employed. It comprises of 10 pre-event days, the deal's announcement day, and 10 post-event days. However, it is only for the purpose of testing Hypothesis 2 that the 21 days long event window is actually applied. For the purpose of testing Hypothesis 1, only a 6 days long period is taken out of the estimated event window. Stock returns on later days might be influenced by other factors than the deal announcement itself and thus are not relevant for Hypothesis 1. Further explanation regarding the length of the event windows is provided in the end of this section.

Once abnormal returns are estimated for each firm in the sample over the specified event window, market reactions to the announcement of Chinese cross-border M&A deals are further measured by estimating average abnormal returns (ARs) and cumulative abnormal returns (CARs). It is because abnormal returns must be aggregated in order to draw inferences for the event of the M&A deal announcement (MacKinlay, 1997).

More precisely, ARs and CARs are calculated as follows:

$$AR_{\tau} = \frac{1}{N} \sum_{i=1}^N AR_{i\tau}$$

$$CAR(t_1, t_2) = \sum_{\tau=t_1}^{t_2} AR_{\tau}$$

Where N is the number of Chinese firms in the sample. While ARs are aggregated along all the securities, CARs are aggregated through time. There are two distinct event windows upon which CARs are calculated in this study (CAR -1, +1 and CAR-1, +3). Such short periods are chosen to avoid confounding effects and statistical biases (MacWilliams and Siegel, 1997). On the other hand, ARs are considered for the event window of 6 days. In the case of ARs the length of the event window does not have any statistical implications and does not incite potential statistical biases.

As further suggested by MacKinlay (1997) the null Hypothesis in the event study section is as follows;  $H_0: AR_{it} < 1\%$ , indicating that no positive abnormal return exists. If return is equal or higher than 1%, positive abnormal returns are noted as significant and the event study null Hypothesis is rejected. CARs are measured to provide for a final assessment of the acquirers' performance. If CARs are found higher than zero, positive returns are confirmed for the sample, if CARs are less than zero, negative returns are confirmed respectively. Testing Hypothesis 1 is thus based on the rule of thumb which is common practice in the event study methodology for big data samples (MacKinlay, 1997). Hypothesis 2 is build upon a smaller data sample of 21 observations (average abnormal returns across the event window) and because the assumption of normality does not hold for such small samples, the rule of thumb is not applicable. Instead a t-test, is applied.

#### 4.2. TWO SAMPLE T TEST

The two sample paired t-test for the comparison of means is conducted for different pairs of subsamples. This test allows for a statistical assessment of the differences in stock market reactions. A Paired t-test is typically used when analyzing two sets of paired data. For the

purpose of the t-test, each test sample is designed to contain 21 observations of share returns. Those range from 10 days prior the Chinese cross-border M&A announcement to 10 days past the announcement and represent stock returns for the Chinese firms grouped into subsamples depending on the geographic location of the stock market listing. Through this, the effects of an announcement are captured and a basis for measuring differences in stock returns among subsamples is established.

## 5.0. RESULTS

Table 1 provides an overview of five subsamples and their composition. Subsamples are constructed to comprise all the different stock exchange markets, as implicated by the sample, by their locations in Europe, China, Asia, the USA, or over the counter market in the USA. Over the counter market in the USA constitutes a separate subsample due to its different structure and nature as compared to the major markets. Those differences are elaborated upon in section 6.1.

Subsample	Stock Exchange
Europe	Frankfurt, Berlin, Stuttgart, XETRA, SIX Swiss, SEAQ International.
USA	NYSE AMEX, New York, NASDAQ.
USA OTC	Non NASDAQ OTC, OTC Bulletin Board.
Asia w/o China	Singapore, Tokyo Stock Exchange, Hong Kong, Kuala Lumpur MESDAQ.
China	Shanghai, Shenzhen.

Table 1.

It is important to note that stocks at Shenzhen (SZSE) and Shanghai (SSE) exchange markets are divided into 'A' and 'B' shares. While in principle 'A' shares are traded in the Chinese currency only and reserved exclusively for the Chinese domestic investors, selected licensed foreign investors are allowed to purchase and sell Yuan-denominated 'A' shares under a program called 'Qualified foreign Institutional Investor', which was launched in 2002. 'B' shares, on the other hand, are traded in foreign currencies. Originally 'B' shares were open to the foreign investors only, but as of 2001 domestic buyers are also allowed to purchase them. Since the majority of events in this study take place after 2002, when Chinese 'A' and 'B' markets become quite comparable in their openness to investors, both 'A' and 'B' shares are included in this study. Also,

the number of B shares in the sample is relatively low and therefore any effect of B shares on the outcome of the study would be negligible.

Table 2 summarizes the average abnormal returns for the entire sample for the event window of 2 days before the announcement day and 3 days afterwards as well as cumulative abnormal returns for the two different event windows (-1, +3) and (-1,+1).

<b>Event Study_Total Sample, N = 253</b>		
<b>Days</b>	<b>ARs</b>	<b>St.Dev.</b>
Day -2	0.21%	4%
Day -1	-0.20%	2%
Announcement Day	0.94%	8%
Day 1	1.13%	7%
Day 2	0.47%	7%
Day 3	0.43%	5%
<b>CAR (-1,+3)</b>	<b>2.77%</b>	
<b>CAR (-1,+1)</b>	<b>1.87%</b>	

Table 2.

According to the results presented in Table 2 markets react positively to the announcements of Chinese foreign M&As. Positive reactions are observed on the announcement day and abnormal positive returns on the day following the announcement with respective stock market returns of 0.94% and 1.13%. Those results are robust over the event window as confirmed by the value of cumulative abnormal returns significantly higher than 1%. It is to be concluded that typically, markets around the world positively value Chinese investments abroad and respective collaboration of Chinese firms with foreign counterparties. Positive impact on the shareholders value is observed and hence the presented results support Hypothesis 1 which states that Chinese foreign takeovers benefit from abnormal positive returns around the deal's announcement time.

To test Hypothesis 2 the sample is further divided into subsamples and respective stock returns are calculated for geographically dispersed markets. Tables 3 to 7 present ARs and CARs separately for each subsample to allow for an overview of the possible differences in market responses across a variety of geographic locations.

<b>Event Study _Europe, n=106</b>		
<i>Days</i>	<i>ARs</i>	<i>St.Dev.</i>
Day -2	0.59%	4%
Day -1	-0.65%	3%
Announcement Day	-0.63%	4%
Day 1	1.42%	5%
Day 2	0.36%	5%
Day 3	1.12%	4%
<b>CAR (-1,+3)</b>	<b>1.63%</b>	
<b>CAR (-1,+1)</b>	<b>0.15%</b>	

Table 3.

Results from the European stock markets are presented in Table 3. The outcome indicates that the returns on stocks of Chinese firms listed in Europe are negative on the day of the deal announcement but abnormally high on the first and third day after the announcement. Those results partially diverge from the results conveyed by the total sample. Nonetheless, positive CAR values for the event window (-1,+3) remain significantly positive and thus support Hypothesis 1.

Table 4 presents ARs and CARs for Chinese firms listed on stock exchanges in Asian markets with the exclusion of Chinese markets.

<b>Event Study _Asia, n=32</b>		
<i>Days</i>	<i>ARs</i>	<i>St.Dev.</i>
Day -2	-0.07%	3%
Day -1	-0.07%	4%
Announcement Day	0.11%	2%
Day 1	2.32%	5%
Day 2	0.41%	5%
Day 3	-0.22%	5%
<b>CAR (-1,+3)</b>	<b>2.55%</b>	
<b>CAR (-1,+1)</b>	<b>2.36%</b>	

Table 4.

Aggregated stock returns from listings in Asia, namely Hong Kong, Singapore, Malaysia, and Japan, imply positive average abnormal returns on the day following the announcement. Positive

CARs for different event windows confirm positive abnormal returns and consequently Hypothesis 1 with values higher than 2% for both CAR (-1,+3) and CAR (-1,+1).

<b>Event Study_ China, n=47</b>		
<b>Days</b>	<b>ARs</b>	<b>St.Dev.</b>
Day -2	0.61%	3%
Day -1	0.76%	3%
Announcement Day	0.64%	3%
Day 1	-0.68%	3%
Day 2	-0.82%	3%
Day 3	-1.06%	4%
<b>CAR (-1,+3)</b>	<b>-1.17%</b>	
<b>CAR (-1,+1)</b>	<b>0.71%</b>	

Table 5.

Table 5 presents average abnormal returns and cumulative abnormal returns as observed at the Shenzhen and Shanghai stock markets. The underlying results are contradictory to those obtained for the entire sample. No abnormal returns were found for the announcement day while returns for the three days following the announcement day are negative This contradicts Hypothesis 1 and differs from the outcome of the full sample.

<b>Event Study_US without OTC, n=36</b>		
<b>Days</b>	<b>ARs</b>	<b>St.Dev.</b>
Day -2	-0.81%	4%
Day -1	-0.13%	3%
Announcement Day	0.77%	4%
Day 1	0.42%	6%
Day 2	0.72%	5%
Day 3	0.41%	6%
<b>CAR (-1,+3)</b>	<b>2.19%</b>	
<b>CAR (-1,+1)</b>	<b>1.06%</b>	

Table 6.

Table 6 illustrates that despite negative returns on the days preceding the deal announcement there are positive returns on the announcement day as well as on the days thereafter on the



standard US markets. Although returns are positive, no abnormal returns were found as according to the *AR* null Hypothesis which is as follows:  $H_0: AR_{it} < 1\%$ , indicating that no positive abnormal return exists. Nevertheless, *CAR* (-1,+3) of 2.19% and *CAR* (-1,+1) of 1.06% confirm that returns associated with the foreign M&As of Chinese firms are on average positive. Table 7 presents estimates for over the counter market in the USA

<b>Event Study_OTC, n=32</b>		
<b>Days</b>	<b>ARs</b>	<b>St.Dev.</b>
Day -2	-0.14%	4%
Day -1	-0.21%	1%
Announcement Day	8.05%	8%
Day 1	2.09%	7%
Day 2	2.82%	6%
Day 3	0.83%	2%
<b>CAR (-1,+3)</b>	<b>13.58%</b>	
<b>CAR (-1,+1)</b>	<b>9.93%</b>	

Table 7.

Although the over the counter market is an American based market (in this study sample), it constitutes a separate subsample due to its different structure. This difference in structure results from the distinctions in rules and techniques governing over the counter transactions as opposed to those governing the primary stock markets.

*ARs* and *CARs* at the OTC market are found to be unlike those in the supplementary subsamples. Here, abnormally high returns are observed on the announcement day of a Chinese cross-border M&A with a value of 8.05%. Returns observed on the days following the announcement exceed 2%. Those *ARs* results lead to very high *CARs*' values which are substantially different from those estimated for the primary markets. Such an uncommonly different outcome is likely to be attributed to the different type of investors which invest in the OTC market as well as the decentralized market structure inherent in the OTC market. The over the counter market is further discussed in the next part of this paper.

While results conveyed by the total sample advocate the presence of high positive returns on the announcement day and abnormal positive returns on the day following the announcement of a Chinese cross-border M&A deal, *ARs* and *CARs* are not consistent among subsamples. It is

found that the OTC market gives abnormally high returns on the stock prices while negative returns are found on the Chinese markets. Nevertheless, it is the total sample that is applied to test Hypothesis 1 and the overall results support it. It is however important to note, that if the estimates attained for the OTC market would be removed from the total sample, no abnormal returns would be found for the share prices around the announcement date of the Chinese cross-border M&As (see Appendix 3). In that scenario Hypothesis 1 would not be supported. Also, if the assumption of normality for the sample would be abandoned, more outliers would be removed from the sample due to the relatively high standard deviations in the observations. This would make the positive abnormal returns to be found not statistically significant, leading to Hypothesis 1 once again being rejected. Finally, as suggested by MacKinlay (1997), the statistical significance of findings is measured on the basis of the rule of thumb. If ARs are higher than 1%, significant positive abnormal returns are noted, otherwise, no significant positive result exists. If a different statistical method would be applied to the analysis instead of the rule of thumb, it is likely that different significance results would be found. It is because share prices in the sample are rather volatile with relatively high standard deviations. This implies that the support for Hypothesis 1 is weak and might not survive under the scrutiny of alternative statistical tools.

To test Hypothesis 2 the outstanding market reactions to Chinese M&A deals are analyzed. A T-test is performed to assess statistical significance of those differences. Only subsamples which differ significantly are subjected to further investigation.

<b>T-TEST</b>			
<b>Subsamples</b>	<b>2- tailed result (Sig.)</b>	<b>Subsamples</b>	<b>2- tailed result (Sig.)</b>
OTC versus China	5.40%	Asia v OTC	8.75%
OTC versus Asia	8.75%	Asia v USA	41.03%
OTC versus Europe	9.80%	Asia v China	46.71%
OTC versus USA	10.48%	Asia v Europe	92.33%
USA v OTC	10.48%	Europe v OTC	9.80%
USA v China	15.64%	Europe v USA	44.12%
USA v Asia	44.12%	Europe v China	52.01%
USA v Europe	41.03%	Europe v Asia	92.33%
		China versus OTC	5.40%
		China versus USA	15.64%
		China versus Asia	46.71%
		China versus Europe	52.01%

Table 8.

T-test's 2-tailed results indicate that stock returns for the OTC market differ significantly from those of other markets at 10.48% significance level, but no significant differences were observed amongst the European, Asian, and the USA markets. Nonetheless, Chinese market returns are found different from the USA returns at a 15.64% significance level. Such outcomes provide a good enough basis to consider reasons for the underlying differences between the Chinese and the USA markets. It is important to note that the most statistically significant difference in the market reactions is that between the OTC and Chinese markets with a p-value of 5.4%. Those strong results advocate the need for further analysis of the OTC market against major stock markets. Consequently, Hypothesis 2 is to be rejected, as market reactions to the Chinese cross-border M&A deals of the geographically dispersed markets have proven inconsistent.

## **6.0. POST HOC ANALYSIS**

Results indicate that, on a global scale, markets react positively in response to the Chinese foreign M&A deals, but that those reactions are not consistent among geographically dispersed markets. While stock markets in Europe, the USA, Asia, and China present similar returns, the OTC market reacts significantly different from all the other major markets. The OTC market showing cumulative abnormal returns (-1,+3) as high as 13.58%. This contrasts with the cumulative abnormal returns (-1,+3) for the regular markets which are relatively low, with their values lying between -1.17% (China) and 2.55 % (Asia).

### **6.1. THE OTC MARKET**

The OTC market is a decentralized, electronic market with dealers being geographically dispersed and linked via the phone or computer screens. This is in contrast to the formal markets where dealers trade face-to-face on one trading floor. It is typical that firms, which are unable to meet exchange listing requirements, are quoted on the OTC market as no strict financial requirements and no minimum bid price is required for an OTC listing. All the formal markets impose sets of listing requirements, which are strictly monitored and enforced. Those requirements differ per exchange but most commonly include minimum annual income, market capitalization, as well as provision of audited financial statements. As a result, the OTC market primarily absorbs marginal and penny stocks as it attracts firms with worse credit ratings and smaller income. Trading on the OTC market is likely to be faster, cheaper, and more efficient than trading on the regular stock markets, as it is direct and not through an exchange and expensive brokers. At the same time, the OTC market is often scrutinized for its lack of transparency, illiquidity, and speculative nature.

Transparency is the extent to which data regarding volumes and prices are publicly available. In the financial literature transparent markets are defined as those that simultaneously offer information on prospective interest, volumes, and prices, as well as on the completed transactions. If those criteria are not met, markets are referred to as opaque (Harris, 2003). The Over the counter market is considered to be an opaque market (Zhu & Haoxiang, 2011). The OTC market liquidity is also commonly criticized. Liquidity is understood as the ability to quickly execute large volume transactions with a small effect on prices (Harris, 2003). It is a positive market attribute as it determines the ease, the extent, and the speed of a risk transfer. The higher the liquidity in the market the less risk it provides for investors as the risk is shifted to the parties that can bear it more easily (Miller, 1990). Whalen (2008) argues that the OTC market provides investors with higher profits but at the cost of liquidity and higher risks. On average, OTC markets generate higher profits when compared to regular markets as is observed by Whalen. Abnormally high OTC market returns are also observed in this present study. Investors further claim that the OTC market is a speculative market. Speculation on the OTC market is believed to be driven by the limited information availability, anonymity of buyers, and the lack of legal means or enforcement to ban market speculation. Srout (2011) argues that speculation on the OTC market erodes returns, increases risks, and distorts market prices. Srout suggests that there are reasons to believe that the OTC market, with its abundant speculation, has contributed to the credit crisis that occurred in the autumn of 2008.

The above arguments which state that the OTC market lacks transparency, liquidity, and allows for speculative behavior on the part of investors might be causes for the abnormally high returns on the OTC market. However, they cannot explain why the OTC market provides for significantly higher stock returns for Chinese firms as compared to major markets. A detailed investigation into the structure of the OTC market is recommended to elucidate the phenomenon. A thusly detailed investigation falls out of the scope of this study. For the sake of this study an explanation of the phenomenon is sought in the specific characteristics of the firms in the study sample and in particular, of those firms listed on the OTC market.

In this research, the OTC market subsample comprises of stocks quoted on the OTC Bulletin Board (OTCBB) in the USA as well as those quoted on the non-NASDAQ OTC market (also referred to as other-OTC) in the USA. NASDAQ itself is a virtual stock exchange too, with no central location and no trading floor. Nevertheless, due to its size, reputation, and high listing requirements it is not considered to be an OTC market but a regular exchange market. In this research, NASDAQ listings of Chinese firms are thus included in the USA major markets subsample and not regarded as OTC listings. OTCBB itself is a regulated listing service, which

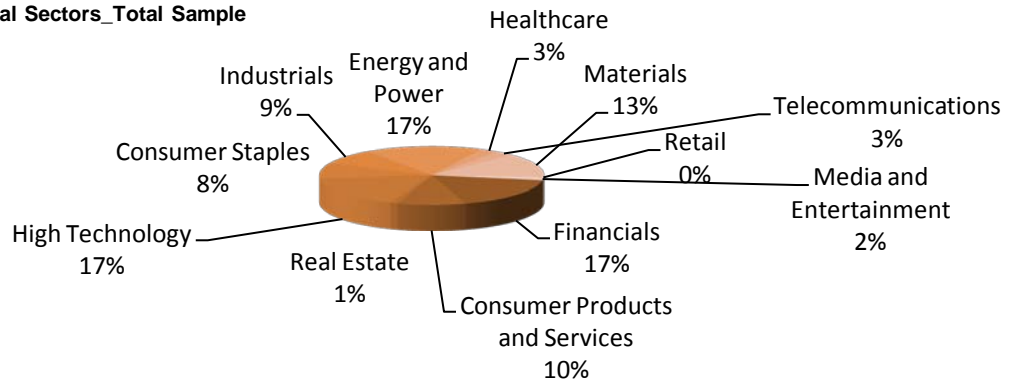
displays volume information and last sale prices on a real time basis. It allows for both domestic and foreign companies including Chinese firms, which are not listed elsewhere on regular securities markets. In order for a foreign security to be quoted on the OTCBB it must be registered with the Securities and Exchange Commission (SEC) which is not a requirement for the quotes on other-OTC markets. Chinese firms that list their shares on the other-OTC markets in the USA mostly do it via the American Depositary Program (ADR). Under ADR firms have minimal reporting requirements with the SEC and are not obliged to issue annual or quarterly reports in compliance with the US GAAP standards. It is important to note, that Chinese firms quoted on other-OTC markets' are usually simultaneously listed on other major exchanges in foreign jurisdiction. For those firms an OTC listing is a so called third market listing which allows for direct trading, rather than through an exchange and a broker. The OTC market subsample in this study consists of 10 OTC Bulletin Board listings and 55 non-NASDAQ OTC listings. Thus, non-NASDAQ OTC listings significantly prevail. As indicated earlier, firms listed on the OTCBB are singularly listed while those quoted on the other-OTC markets are frequently listed on the regular stock markets as well. Therefore, in this present case, not only the small firms that do not meet the requirements of regular exchange markets are listed on the OTC market. Also those firms that do meet the requirements of major stock markets list on the OTC as on the third market.

Various conclusions can be drawn at this point. First of all, the sample investigation implies that many Chinese firms are simultaneously listed on the OTC market and regular markets. Because the results obtained for the OTC market are significantly higher than those obtained for the regular markets for the exact same firms, there is evidence for the OTC market effect. In this study, the OTC market effect is defined as a provision of abnormally high stock returns for the Chinese firms listed on the OTC market in a response to Chinese cross-border M&As. However, reasons for the OTC market effect are not straightforward. Attributes of the OTC market, as described by the extant literature, can account for the abnormally high returns on the OTC market, but the causality relation cannot be verified within the scope of this study. Those attributes include the lack of market transparency and illiquidity, which might cause for higher risks and consequently higher payoffs. Furthermore, speculation on the OTC market might further drive the OTC market returns up as the announcement of a Chinese cross-border M&A offers a ground to speculate about the future perspectives for the parties involved and their future value. Nonetheless, none of the above reasons can well explain why the OTC market offers abnormally high returns around the event time of the Chinese cross-border M&As. Different listing requirements on the OTC market as compared to the requirements on the regular markets also cannot explain the differences in returns. This is because many firms are simultaneously listed on both the OTC market and the regular markets and thus it must be that those firms conform to the

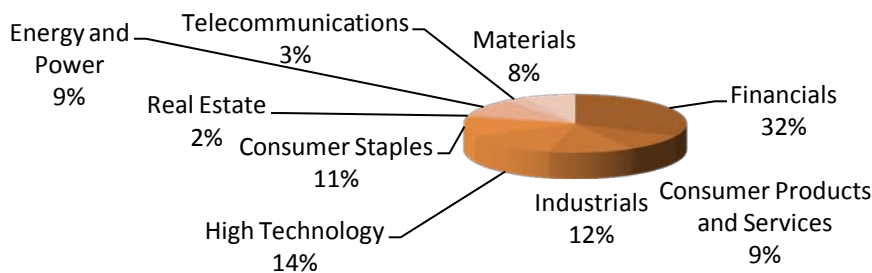
requirements of both markets. Further attributing factors may be found in the industry specification of the Chinese firms listed on the different stock markets.

As of 2010 the Chinese economy was chiefly dependent on the industrial sector which constituted 46.8% of the national GDP. The main Chinese industries are steel, coal, iron, machinery, chemicals, textiles, consumer electronics, and information technology. Services and agriculture accounted for 43.6% and 9.6% of GDP respectively (Datamonitor: China, 2010). Figure 2 illustrates the total study sample in terms of sectors. The structure of the sample to a big extent reflects the national economic structure with industrial and service sectors being dominant. Figures 3-5 present subsamples in terms of sectors for the firms listed on the OTC, Chinese, and the USA markets.

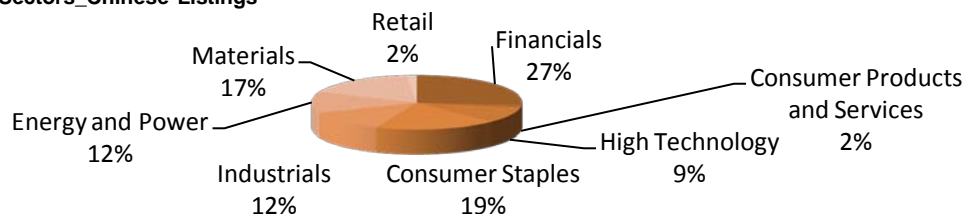
**Figure 2: Industrial Sectors\_Total Sample**

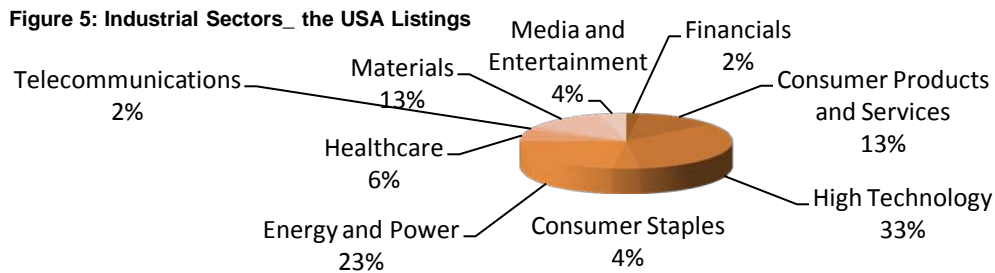


**Figure 3: Industrial Sectors \_OTC Listings**



**Figure 4: Industrial Sectors\_Chinese Listings**





Financials are dominant both on the OTC market and the Chinese marketplace while stock returns for those two markets are significantly different from each other around the announcement times of Chinese cross-border M&As. Consequently, no industry effect is implied for the different stock returns on different stock markets.

In order to investigate other factors possibly responsible for the abnormally high OTC market returns, the sample is divided into new subsamples on the lines of Chinese cross-border M&A deals values and the target firms' nations. In Table 9 firms are analyzed with respect to the M&A deal values.

Days	Unknown Value (St. Dev.)	Under \$20 mil. (St.Dev.)	\$20 mil. -\$200 mil. (St.Dev)	Over \$200 mil. (St. Dev.)
Day -2	0.07% (2%)	1.19% (5%)	-0.59% (3%)	0.94% (3%)
<b>Day -1</b>	0.51% (3%)	-0.56% (3%)	-0.41% (2%)	-1.38% (4%)
<b>Announcement Day</b>	0.79% (5%)	0.35% (3%)	2.26% (7%)	0.09% (3%)
<b>Day 1</b>	1.31% (4%)	0.81% (6%)	1.32% (5%)	0.03% (3%)
<b>Day 2</b>	-0.49% (3%)	0.02% (4%)	2.79% (4%)	-0.71% (4%)
<b>Day 3</b>	-0.51% (3%)	0.72% (3%)	2.06% (4%)	-0.29%(8%)

Table 9.

The total sample is divided into four groups: Chinese cross-border M&A deals worth less than \$20 million, deals worth between \$20 million and \$200 million, deals worth more than 200 \$million, and deals for which values could not be obtained neither through the Thompson One Banker database nor the supplementary database used - the Zaphire Database. Stock returns are the

highest for deals falling in the \$20 – \$200 mil range around the announcement times of M&A deals, but the differences across subsamples are not statistically significant at the 10% level.

In addition, stock returns for the Chinese firms are analyzed independently for firms that acquire their targets in the same country as where they list and those that acquire their targets elsewhere. Table 10 presents the results.

Days	Acquirer's listing nation and target's	
	nation -Same (St. Dev.)	nation –Different (St. Dev.)
Day -2	0.15% (2%)	0.29% (3%)
Day -1	-1.11% (4%)	-0.01% (3%)
Announcement Day	0.20% (3%)	-0.09% (3%)
Day 1	1.96% (7%)	0.90% (5%)
Day 2	-0.02% (3%)	0.47% (2%)
Day 3	1.23% (4%)	-0.37% (4%)

Table 10.

Although a difference in stock returns is found on the day following the announcement of the Chinese cross-border M&As, the difference between the two outcomes is not statistically significant at the 10% significance level.

To sum up, it is found that stock returns are relatively robust upon the time of an announcement of the cross-border M&A. The only statistically significant difference is that for the Chinese firms listed on the OTC market as compared to those listed on the regular stock markets.

## 6.2. FURTHER RESULT ANALYSIS

The European, American, Chinese, and Asian markets' reactions are insignificantly different from each other at a 10% significance level. Nonetheless, the difference between Chinese and the USA markets is found statistically significant at 15.64%. This outcome is interesting for further consideration although most statisticians would ignore such a result, which does not fall within 90% confidence interval. While Chinese cross-border M&As trigger negative returns on the Chinese stock markets with a CAR(-1,+3) value of -1.17%, positive abnormal returns were found on the USA markets with a CAR(-1,+3) value of 2.19%. As outlined in section 2.0., the Chinese market differs from the stock markets in more develop nations with respect to the market structure and



investor types. It is thus not a revelation that the Chinese market conveys different results than the USA stock market.

Although Chinese regulatory bodies have recently sought to improve corporate governance within the Chinese publicly listed firms, an extant research revealed that the majority of governance instruments implemented in China are not effective (Yang, Chi & Young, 2011). Yang, Chi & Young (2011) attribute the ineffectiveness of corporate governance in China to the large stake of government in Chinese listed firms and a lack of an independent judicial system which ultimately results in weak investor protection and poor law enforcement. Qiang (2003) found that the government in China controlled over 80 percent of shares in publicly listed companies at the end of year 2001. Although this percentage has been decreasing in recent years, Yang, Chi & Young (2011) estimated that at the end of year 2009 over 50 percent of listed companies' shares were still owned by the state. Many firms in the Chinese market are controlled by private investors but only a few listed companies have shares held by foreign investors. Unlike in the developed countries, employee and managerial shareholdings are very small in China. There are few institutional investors and it is commonly acknowledged that institutional investors can effectively reduce the market information asymmetry and increase the voice of minority investors in the corporate decisions of listed firms. Simultaneously, they alleviate the agency conflict between managers and shareholders. Findings of behavioral nature, as presented by Chi, Sun & Young (2011), suggest that Chinese investors are more attentive to the political advantages of the cross-border M&As rather than to the economical ones. They value enhanced governmental ownership or improved governmental connections over the resulting economic rewards such as increased profitability or efficiency. Simultaneously, political problems resulting from cross-border M&As might affect Chinese investors more heavily than they would affect investors elsewhere. For that matter, Chinese investors, who are wary of the institutional, political, or cultural post deal clashes, might drive negative stock returns on the days around the cross-border M&A deal's announcement. Furthermore, previous research (Kang & Johansson, 2000; Aviat, De Santis R., Coeurdacier N., 2009) has shown that economic profits and not the political advantages are primarily derived from cross-border M&As. Since economic profits are of a lesser importance to the Chinese investors they might be willing to pay less for the stocks of the Chinese acquiring firms as compared to the investors in the USA.

Being a relatively new stock market, the Chinese exchange still poses issues with regard to market transparency and efficiency. The Shenzhen and Shanghai stock markets were founded in the beginning of 1990's while the history of the majority of the stock markets in the sample dates back to the early 1800's. The Chinese markets' structure poses further inefficiency threat.

Chinese firms are allowed to release different types of stocks including A- and B- stocks, as was described earlier in the paper. Such a division undermines market liquidity. As investors are restricted in trading on the Chinese stock markets, they might not be able to act fast and efficiently upon market information.

As a final point, major exchange markets are presented by region in table 11 and compared amongst each other to allow for an analysis of other probable market differences leading to different market reactions.

Region (Sub Sample)	Relevant Exchange Markets	Capitalization of the largest market in the region (year end)	Additional Information
<b>China</b>	Shanghai, Shenzhen	Shanghai: 2007 - \$3,694bn 2008 - \$1,425 2009 - \$3,210bn	China set up exchanges in Shanghai and Shenzhen relatively late (1990–91)
<b>USA</b>	NYSE,NASDAQ	NYSE: 2007 - \$15,650 bn 2008 - \$9,208 bn	The New York Stock Exchange (NYSE) is currently the biggest in the world in terms of market capitalization. NASDAQ is a leader in technology stocks.
<b>Europe</b>	Frankfurt Stock Exchange, XETRA Stuttgart, Swiss, SEAQ International	FSE: 2007 - \$2,105.2bn 2008- \$1,110 bn 2009 -\$1,292.4bn	Frankfurt Stock Exchange is the second biggest exchange in Europe after London Exchange. In 1997 FSE launched the Xetra system, an electronic trading platform. Through Xetra, FSE facilitates involvement of foreign investors with around 140 market participants.
<b>Asia</b>	Tokyo stock exchange, Singapore Exchange Limited, Bursa Malaysia, Hong Kong Stock Exchange	Tokyo: 2007 - \$4.3 tn 2008 -\$3 tn 2009 -\$3.4 tn	Tokyo Stock Exchange is the world's second largest stock market in terms of market capitalization after the New York Stock Exchange.

Table 11.

From Table 11 it follows that market capitalization of prime American markets is significantly higher than that of the Chinese markets. The impact of market capitalization on stock prices and market reactions is not straightforward. Further investigation is recommended to verify whether market capitalization is a factor in the valuation of stocks upon the time of announcement of the cross-border M&A deals.

All the findings presented above serve as an indication of why Chinese market provides for lower stock returns than the USA market in response to the Chinese cross-border M&As. Different preferences of Chinese investors as compared to the American ones, the possibility of insider trading in China, the division of stocks into A- and B- shares and thus destabilized market liquidity, as well as a relatively low transparency on the Chinese market might all have an effect on the final results.

## **7.0. CONCLUSIONS**

This paper investigated whether Chinese cross-border M&As create positive value for the Chinese bidding firms and whether market reactions to those M&As are consistent across the globe. Results show that, in general, markets react positively in response to the Chinese foreign M&A deals, but that those reactions are not consistent among geographically dispersed markets. While stock markets in Europe, the USA, Asia, and China present similar returns, the OTC market reacts significantly different from all the other major markets providing for abnormally high stock returns around the announcement times of Chinese cross-border M&As. It is somewhat surprising that Chinese stock market reacts alike markets in the developed nations despite being relatively new and yet underdeveloped as compared to the markets in the USA or Europe.

Supplementary, market reactions in response to the announcements of Chinese cross-border M&As were measured for different groups of firms, reliant on the value of Chinese cross-border M&A deal and target firms' nation (depending on whether target firm is located in the same country where the Chinese firm is listed or elsewhere). No differences in market reactions were found across those different sample groups. It follows that the OTC market effect is the only strong effect obtained in this study with the OTC market providing for abnormally high stock returns upon the time around the announcement of the Chinese cross-border M&As .

Those results suggest that international investors are usually enthusiastic about the expansion of Chinese firms abroad. However, it is the over the counter market in particular that provides for abnormally high stock returns upon the announcement of Chinese cross-border M&A deals. The reasons for this positive reaction of the OTC market are to be associated with the OTC market

structure and the type of OTC market investors. The OTC market is typically scrutinized for its lack of transparency, illiquidity, and the speculative behavior of its investors. Nevertheless, due to the limited scope of this study it cannot be verified whether those market attributes indeed cause the strong effect on the stock prices around the times of the announcement of the Chinese cross-border M&As. More in-depth analysis of the OTC market as compared to the regular markets is recommended to provide for a better explanation of the phenomenon. Furthermore, to attain a higher validity of the results more diverse models for measuring abnormal returns should be utilized. This paper used the constant return model as a basic benchmark.

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## APPENDIX

### Appendix 1.

The original sample of Chinese cross- border M&As, acquirer's name, deal's announcement day, target firm's details

<b>Date Announced</b>	<b>Date Effective</b>	<b>Target Name</b>	<b>Target Nation</b>	<b>Acquirer Name</b>
01/25/2011	03/03/2011	Guestrower Waermepumpen GmbH	Germany	SmartHeat Inc
01/25/2011	01/25/2011	Kijoon English School	South Korea	Xinhua Finance Ltd
12/27/2010	03/08/2011	Inds & Coml Bk of China (Thai)	Thailand	ICBC
11/12/2010	02/10/2011	Ding Neng Holdings Ltd	British Virgin	Intergrated Energy)
11/08/2010	11/08/2010	GMS School	South Korea	Xinhua Finance Ltd
11/02/2010	11/19/2010	Favour Intl Dvlp Ltd	Hong Kong	Guangdong Jingyi Metal Co Ltd
10/29/2010	10/29/2010	Fortis Securities-Prime Svcs	United States	ICBC
09/16/2010	09/29/2010	Taiwan Wenbi Intl Co Ltd-Asset	Taiwan	Focus Technology Co Ltd
09/10/2010	09/10/2010	Eyedentity Games Inc	South Korea	Shanda Games Ltd
08/24/2010	08/24/2010	Auctiva Corp	United States	Alibaba.com Ltd
08/11/2010	08/11/2010	Jinhao Power Holdings Ltd	Hong Kong	Jinhao Motor Co
07/20/2010	09/13/2010	M2P2 LLC	United States	Agfeed Industries Inc
07/18/2010	11/12/2010	Synlait Milk Ltd	New Zealand	Bright Dairy & Food Co Ltd
06/30/2010	02/01/2011	BorsodChem Zrt	Hungary	Yantai Wanhua Polyurethanes Co
06/24/2010	06/24/2010	Vendio Services Inc	United States	Alibaba.com Ltd
06/02/2010	06/02/2010	Media & Tech Solutions Inc	United States	eWorld Interactive Inc
05/10/2010	05/10/2010	Dong Ke Pharmaceutical Inc	United States	Virtual Closet Inc
05/07/2010	05/07/2010	Sino-Bon Entertainment Inc	British Virgin	Sunnyside Acres Mobile Estates
04/08/2010	04/08/2010	Evercharm Holdings Ltd	British Virgin	China Packaging Group Inc
03/29/2010	03/29/2010	Rongfu Aquaculture Inc	United States	Granto Inc
03/27/2010	04/01/2010	Ogihara-Tatebayashi Factory	Japan	BYD Co Ltd
02/26/2010	02/26/2010	Remediation Services Inc	United States	China LianDi Clean Tech
01/11/2010	02/09/2010	Mochi Media Inc	United States	Shanda Games Ltd
12/30/2009	02/10/2010	Citicall Retail Management Ltd	Hong Kong	Suning Appliance Co Ltd
12/16/2009	02/01/2010	Nikko Electric Industry Co Ltd	Japan	Ningbo Yunsheng Co Ltd
12/14/2009	03/19/2010	DAL Group LLC	United States	Chardan 2008 China Acq Corp
12/09/2009	12/31/2009	Sky Charter Development Ltd	Hong Kong	Sino-Ocean Land Holdings Ltd

11/24/2009	12/07/2009	Anytone Intl (HK) Co Ltd	Hong Kong	New Energy Systems Group
11/16/2009	01/18/2010	Yantai Raffles Shipyard Ltd	Singapore	China Intl Marine Containers
11/16/2009	01/18/2010	Yantai Raffles Shipyard Ltd	Singapore	China Intl Marine Containers
11/05/2009	11/05/2009	Hong Kong Chenxin Intl Dvlp	Hong Kong	MD Holdings Corp (Guanwei )
10/30/2009	11/13/2009	SAIC Velcorex-Assets	France	Zhonghe Co Ltd
09/29/2009	04/16/2010	ACL Bank PCL	Thailand	ICBC
09/19/2009	11/02/2009	Michigan Rubber-Fixed Asts	United States	Anhui Zhongding Sealing Parts
09/19/2009	11/02/2009	Buckhorn Rubber-Fixed asts	United States	Anhui Zhongding Sealing Parts
09/02/2009	10/13/2009	Beaver Brook Antimony Mine Ltd	Canada	Hunan Nonferrous Metals Corp
08/13/2009	12/11/2009	Felix Resources Ltd	Australia	Yanzhou Coal Mining Co Ltd
08/12/2009	01/25/2010	Evatech Co Ltd	Japan	A-Power Energy Generation Sys
07/17/2009	07/17/2009	Navratan Impex Trading Pvt Ltd	India	Hengxin Technology Ltd
07/14/2009	07/14/2009	Solar Green Technology SpA	Italy	LDK Solar Co Ltd
07/03/2009	07/03/2009	TP Corp Ltd-Operating	Hong Kong	VancelInfo Technologies Inc
06/04/2009	01/28/2010	Bank of East Asia (Canada)	Canada	ICBC
05/11/2009	10/23/2009	CITIC Intl Finl Hldg Ltd	Hong Kong	China CITIC Bank Corp Ltd
04/11/2009	05/25/2009	Liberty Mines Inc	Canada	Jilin Ji En Nickel Ind Co Ltd
03/31/2009	03/31/2009	Eatware Intellectual Ppty Ltd	British Virgin	China Shoe Holdings Inc
03/31/2009	03/31/2009	Extra Ease Ltd	British Virgin	China Shoe Holdings Inc
03/30/2009	03/30/2009	TripMart	Hong Kong	Business Dvlp Solutions Inc
02/24/2009	07/22/2009	Nam Tai Electronic & Elec Prod	Hong Kong	Nam Tai Electronics Inc
01/20/2009	06/29/2009	China Great Wall Computer(HK)	Hong Kong	China Great Wall Computer
01/07/2009	01/07/2009	Nice Rhythms Ltd	Singapore	Sunshine Holdings Ltd
01/05/2009	01/05/2009	Schnadig Corp	United States	Markor Intl Furniture Co Ltd
12/08/2008	02/01/2009	Global Interserv(Caymans)Inc	Cayman Islands	Perfect World Co Ltd
11/28/2008	11/28/2008	Actoz Soft Co Ltd	South Korea	Shanda Interactive Ent Ltd
11/19/2008	06/17/2009	Todd & Duncan Ltd	United Kingdom	Ningxia Zhongyin Cashmere Co
10/29/2008	10/29/2008	Willis & Gambier Ltd	United Kingdom	Samson Holding Ltd
10/08/2008	10/08/2008	Northern Constr Hldgs Ltd	Hong Kong	Fidelity Aviation Corp
10/02/2008	10/02/2008	EI Solutions Inc	United States	Suntech Power Holdings Co Ltd
09/23/2008	10/01/2008	Asia Forever Investment Ltd	Hong Kong	Home System Group
09/19/2008	09/19/2008	WinHall Estate Sdn Bhd	Malaysia	WinSun Technologies Bhd
08/27/2008	12/18/2008	Sun World Ltd	Hong Kong	PetroChina Co Ltd
08/14/2008	11/20/2008	New South Wales-Coal Expl	Australia	China Shenhua Energy Co Ltd
08/08/2008	08/08/2008	Allied Artists Pictures Corp	United States	Along Mobile Technologies Inc

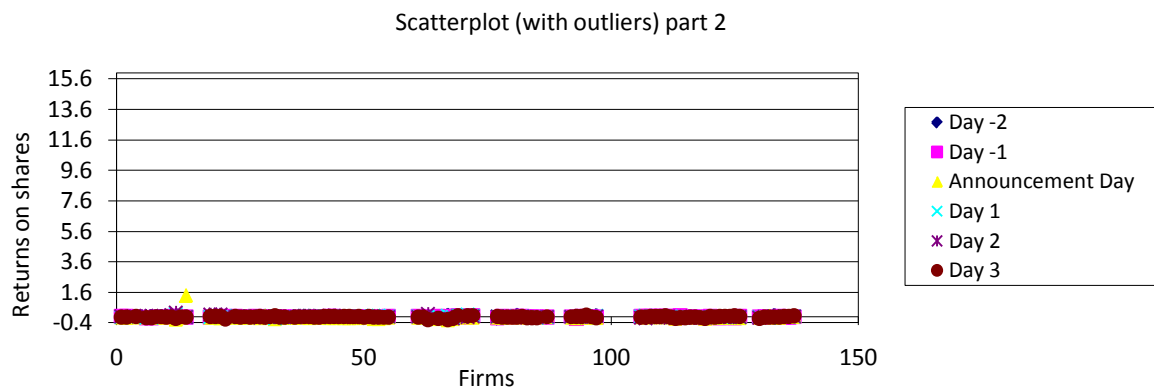
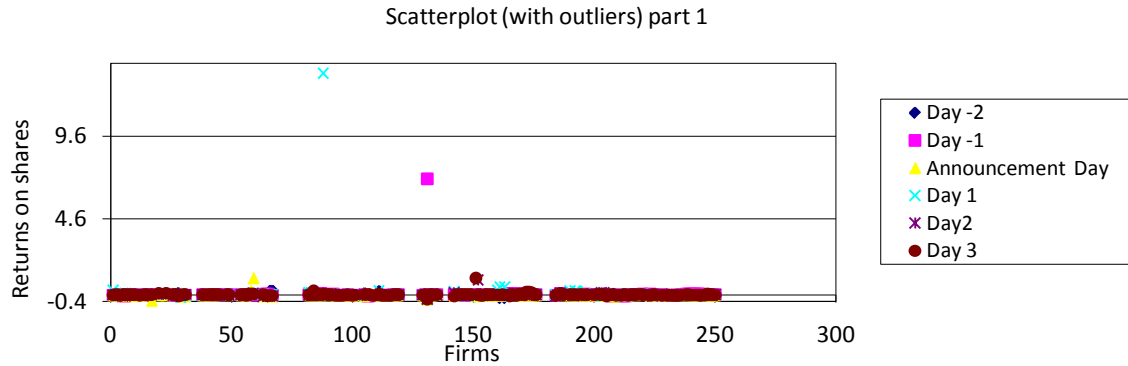
07/28/2008	07/28/2008	Inner Mongolia Feichangniu	Mongolia	Sichuan New Hope Agribusiness
07/07/2008	08/14/2008	Wealthy King Investments Ltd	Hong Kong	Huabao Intl Hldg Ltd
06/02/2008	10/27/2008	Wing Lung Bank Ltd	Hong Kong	China Merchants Bank Co Ltd
06/02/2008	09/30/2008	Wing Lung Bank Ltd	Hong Kong	China Merchants Bank Co Ltd
06/02/2008	06/02/2008	Infra Hong Kong Group Ltd	Hong Kong	China Eastsea Business
05/30/2008	07/22/2008	Investwise International Ltd	Hong Kong	Kasen Intl Hldgs Ltd
05/13/2008	09/19/2008	Abra Mining Ltd	Australia	Hunan Nonferrous Metals Corp
05/05/2008	05/05/2008	Toromocho Copper Project	Peru	CHALCO
04/15/2008	04/15/2008	Asian Bus Mgmt Grp Ltd	British Virgin	Aamaxan Transport Group Inc
04/01/2008	04/01/2008	KSL KUTTLER AUTOMATION SYS	Germany	Suntech Power Holdings Co Ltd
03/31/2008	10/31/2008	Dynex Power Inc	Canada	Zhuzhou CSR Times Electric Co
03/28/2008	03/28/2008	Willsky Development Ltd	British Virgin	Travel Hunt Holdings Inc
03/26/2008	06/30/2008	SinoSing Power Pte Ltd	Singapore	Huaneng Power Intl Inc
03/13/2008	12/31/2008	Phenix Co Ltd	Japan	China Dongxiang(Group)Co Ltd
03/11/2008	05/15/2008	Datascope Corp-Patient Monitor	United States	Mindray Med Intl Ltd
02/15/2008	02/25/2008	Gierlings Velpor SA	Portugal	Jiangsu Aoyang Tech Co Ltd
01/21/2008	02/29/2008	Monsanto Co-Butachlor &	India	Sinochem International Co Ltd
01/16/2008	01/16/2008	Mirae Intustry Co Ltd-coating	Hungary	BYD Electronic(Intl)Co Ltd
01/07/2008	01/07/2008	Precious Sheen Investments Ltd	British Virgin	Energrouph Holdings Corp
01/07/2008	01/07/2008	Beck Project,Colorado	United States	Yellowcake Mining Inc
01/02/2008	01/31/2008	AppTec Laboratory Services Inc	United States	WuXi PharmaTech(Cayman)Inc
12/27/2007	01/24/2008	ICBC(Asia)	Hong Kong	ICBC
12/25/2007	12/31/2007	Chihong Intl Mining Co Ltd	Australia	Yunnan Chihong Zinc
12/06/2007	12/06/2007	Soaring Dragon Enterprise Ltd	Hong Kong	PetroChina Co Ltd
11/18/2007	01/16/2008	Quorum Systems Inc	United States	Spreadtrum Communications Inc
11/08/2007	11/08/2007	Techwell Engineering Ltd	Hong Kong	China Architectural
11/07/2007	11/07/2007	Fortune Fame Intl Invest Ltd	Hong Kong	China Public Security Tech Inc
11/06/2007	01/08/2008	Kellwood Co-Smart Shirts Bus	Hong Kong	Youngor(Group)Co Ltd
10/29/2007	02/05/2008	Zhongsen Intl	Hong Kong	Sentaida Tire Co Ltd
09/25/2007	10/29/2007	Copperweld Bimetallics LLC	United States	Fushi International Inc
09/14/2007	11/23/2007	Daily Growth Investment	Hong Kong	China Finance Online Co Ltd
09/12/2007	09/12/2007	Keep on Holdings Ltd	British Virgin	Lincoln International Corp
08/30/2007	08/30/2007	Vitibev Farms Ltd	Canada	Tonghua Grape Wine Co Ltd
08/29/2007	01/28/2008	Seng Heng Bank	Macau	ICBC
08/29/2007	07/30/2009	Seng Heng Bank	Macau	ICBC

07/09/2007	07/09/2007	Ocean Pacific Technology Ltd	Hong Kong	China Sec & Surveillance Tech
06/26/2007	06/26/2007	Burg Industries BV	Netherlands	China Intl Marine Containers
06/11/2007	08/01/2007	Peru Copper Inc	Canada	CHALCO
03/14/2007	06/28/2007	China Resources Entrp-Filling	Hong Kong	Sinopec Corp
03/07/2007	03/09/2007	Usunco Automotive Ltd	British Virgin	Equicap Inc
02/06/2007	03/05/2007	Supreme Well Invest Ltd-Bus	Hong Kong	China Medical Technologies Inc
02/06/2007	03/05/2007	Molecular Diagnostics-FISH Bus	Hong Kong	China Medical Technologies Inc
01/29/2007	04/30/2007	Total Boost Enterprises Ltd	Hong Kong	Link Hi Holdings Ltd
01/27/2007	12/01/2007	Comtech Global Engineering &	Hong Kong	INSIGMA Technology Co Ltd
01/03/2007	01/03/2007	Solid Success Holdings Ltd	Hong Kong	AsiaPharm Group Ltd (Luye Pharma)
12/31/2006	09/28/2007	Bank Halim Indonesia PT	Indonesia	ICBC
12/15/2006	12/15/2006	Singapore Aircraft Leasing	Singapore	Bank of China Ltd
12/14/2006	12/14/2006	Glass Lewis & Co LLC	United States	Xinhua Finance Ltd
12/06/2006	01/31/2007	Holy(HK)Ltd	Hong Kong	Home System Group
11/24/2006	11/24/2006	Ahead Billion Venture Ltd	Hong Kong	YTEC
11/24/2006	11/24/2006	Port Wing Development Co Ltd	Hong Kong	YTEC
11/15/2006	01/29/2007	Absolute Europe AG	Switzerland	Absolut Invest AG
11/10/2006	11/10/2006	Often More Ltd	British Virgin	Link Hi Holdings Ltd (FASTUBE)
11/10/2006	11/10/2006	Fit Result Enterprises Ltd	British Virgin	Link Hi Holdings Ltd (FASTUBE)
08/24/2006	12/29/2006	Bank of America(Asia)Ltd	Hong Kong	China Construction Bank Corp
08/23/2006	01/10/2007	PetroKazakhstan Inc	United Kingdom	PetroChina Co Ltd
08/02/2006	08/14/2006	MSK Corp	Japan	Suntech Power Holdings Co Ltd
08/02/2006	12/31/2007	MSK Corp	Japan	Suntech Power Holdings Co Ltd
07/01/2006	08/31/2006	Appreciate Capital Ltd	British Virgin	Focus Media Holding Ltd
06/21/2006	01/24/2007	CNAC	Hong Kong	Air China Ltd
06/20/2006	08/10/2006	OAQ Udmurtneft	Russian Fed	Sinopec Corp
06/07/2006	08/01/2006	Chemactive Investments Ltd	Hong Kong	Huabao Intl Hldg Ltd
05/25/2006	05/31/2006	Sancon Recycling Pty Ltd	Australia	MKA Capital Inc
04/01/2006	04/01/2006	HRDQ Group Inc	United States	Telecom Communications Inc
03/22/2006	06/30/2006	Galaxy View International Ltd	United States	China Digital Commun Grp Corp
03/01/2006	05/30/2006	Citic Sec Brkg(HK)Ltd	Hong Kong	CITIC Securities Co Ltd
01/31/2006	05/30/2006	CITIC Capital Markets Ltd	Hong Kong	CITIC Securities Co Ltd
01/31/2006	05/30/2006	CITIC Capital Futures Ltd	Hong Kong	CITIC Securities Co Ltd
10/16/2005	01/04/2006	Infoachieve Ltd	Hong Kong	Focus Media Holding Ltd

08/15/2005	08/15/2005	Koninklijke Numico NV	Netherlands	American Dairy Inc (Feihe Int)
07/14/2005	07/14/2005	Washington Analysis LLC	United States	Xinhua Finance Ltd
06/20/2005	06/20/2005	Taylor Rafferty	United States	Xinhua Finance Ltd
05/31/2005	12/31/2005	EconWorld Media	Hong Kong	Xinhua Finance Ltd
05/17/2005	05/17/2005	Brilliant Concept Invest Ltd	Hong Kong	Linktone Ltd
05/11/2005	07/29/2005	TCL Commun Tech Holdings Ltd	Hong Kong	TCL Corp
05/10/2005	05/10/2005	Ying Mei Investment Ltd	British Virgin	Jolimark Holdings Ltd
05/10/2005	05/10/2005	Visionic Investment Ltd	British Virgin	Jolimark Holdings Ltd
05/10/2005	05/10/2005	Kong Yue Investment Ltd	British Virgin	Jolimark Holdings Ltd
12/29/2004	12/29/2004	JIC Technology Co Ltd	Hong Kong	Nam Tai Electronics Inc
10/29/2004	10/29/2004	Schiess AG	Germany	Shenyang Machine Tool Co Ltd
10/11/2004	12/29/2004	Gympie-Southland Coal Asts	Australia	Yanzhou Coal Mining Co Ltd
09/28/2004	01/28/2005	LANXESS AG-Plant,Baytown,TX	United States	Weifang Yaxing Chemical Co Ltd
08/11/2004	05/01/2005	Baosteel Singapore Pte Ltd	Singapore	Baoshan Iron & Steel Co Ltd
07/29/2004	07/29/2004	Unical Enterprises Inc	United States	Industries International Inc
07/28/2004	07/28/2004	Applica Durable Mnfg Ltd	Hong Kong	Elec-Tech International Co Ltd
07/27/2004	10/25/2004	Lenovo Group Ltd-IT Svc Bus	Hong Kong	AsiaInfo Holdings Inc
06/18/2004	06/18/2004	RAG AG-Coke Plant	Germany	Yanzhou Coal Mining Co Ltd
06/07/2004	06/14/2004	Mergent Inc	United States	Xinhua Finance Ltd
05/10/2004	08/03/2005	Duerkopp Adler AG	Germany	Shanggong Co Ltd
03/31/2004	04/21/2004	Jasper Ace Ltd	Hong Kong	Nam Tai Electronics Inc
03/11/2004	04/10/2004	Conserve de Provence SAS	France	Xinjiang Chalkis Co Ltd
01/22/2003	03/31/2003	Xian Chen Chuan Auto LLC	Hong Kong	BYD Co Ltd
12/24/2002	02/10/2003	Broad Faith Ltd	Hong Kong	Industries International Inc
10/21/2002	10/21/2002	Moltech Power Systems	United States	Shanghai Tyre & Rubber Co Ltd
09/26/2002	01/22/2003	Hydis	South Korea	BOE Technology Grp Co Ltd
04/15/2002	04/30/2002	Devon Energy-Indonesian Oil	Indonesia	PetroChina Co Ltd
04/10/2002	05/01/2002	Glenoit Corp-Specialty Fabrics	United States	Shanghai Haixin Group Co Ltd
01/18/2002	04/19/2002	Repsol YPF SA	Indonesia	CNOOC Ltd
01/13/2002	01/13/2002	Widuri Oil Field	Indonesia	CNOOC Ltd
01/07/2002	01/09/2002	Wu Holdings Ltd	Hong Kong	Qiao Xing Universal Tele Inc
05/17/2001	05/17/2001	Elephant Talk Ltd	Hong Kong	Hartcourt Cos Inc
04/09/2001	04/09/2001	Shennan Energy(Singapore)Co	Singapore	Shenzhen Nanshan Power Co Ltd
09/26/2000	10/31/2000	J.I.C. Group of companies	Hong Kong	Nam Tai Electronics Inc
02/17/2000	02/17/2000	Bombardier-3 Regional Jets	Canada	Shanghai Airlines Co Ltd

## Appendix 2.

Observations in the studied sample before the elimination of outliers



## Appendix 3.

Event Study_Total Sample without OTC	
Days	AR
Day -2	0.26% (3%)
Day -1	-0.19% (2%)
Announcement Day	-0.09% (5%)
Day 1	0.99% (4%)
Day 2	0.13% (3%)
Day 3	0.37% (3%)
CAR (-1,+3)	1.21%
CAR (-1,+1)	0.71%