

# The Dragon vs. The Eagle: A Case of Mergers

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## ABSTRACT

With the rise of China's global presence, mergers conducted by domestic bidders have begun to raise political and economic concern. This paper directly examines this topical debate by comparatively assessing the performance of inexperienced Chinese bidders undertaking mergers against the experienced merger market of the US. The work shows that US bidders follow a market timing strategy while Chinese bidders have sought to capitalise upon deals conducted in low valuation markets, most likely to signal that target firms are also in a low-valuation state. This value strategy is reaping great rewards for Chinese firms and overall, Chinese bidders significantly and positively outperform those in the US. With this evidence, it is apparent that experience does not always make the difference.

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## **1. Introduction**

Power begets attention. As a fully entrenched superpower China has become the source of much economic analysis. It has emerged as the second largest economy in the world, with both political and economic ramifications for the rest of the world. Operating in stark contrast to the US, state-involvement in the Chinese market continues to play an important role. The political and economic decisions made by the Chinese government continue to have high influences over the performance of their domestic firms. Re-entry into the WTO alongside favourable merger regulation reforms has allowed for merger activity to rise over recent times. But how good are these merger deals in comparison to the established merger market of the US? Literary evidence in this field is of undoubted importance to help shed light over the relatively unexplored Chinese merger market.

China has benefitted greatly from its economic growth in recent times, positioning itself as the factory of the world. Many countries, including the US, depend heavily on the Chinese market, importing many goods produced within the Chinese state. While money has been harnessed within the Chinese market, firms are starting to leak these funds out worldwide. The FT reports that money from China has flooded into the antiques market, into the arts, and even now into philately with a rare block of Chinese stamps selling for \$1.1m in Hong Kong. Most importantly, Chinese firms have begun their merger campaigns bringing further outside resources into the domestic market, strengthening this superpower even further.

However, this has not all been plain sailing for Chinese bidders. Announcements of cross-border merger deals conducted by a Chinese bidder have attracted political attentions in foreign markets due to the prominent role the government plays in the domestic market of these bidders. For example, Swedish government officials recommended against the sale of Volvo to Geely, the Chinese car manufacturer, for fear of the potential future outflow of intellectual property to China. In addition, Hillary Clinton has been the latest prominent political figure warning of China's global presence, cautioning that the US is set to fall behind in the competition between the two countries for global supremacy due to the contrasting financial positions. While China has a surplus of money ready to use, the US is still recovering from the Subprime crisis. With all of this in mind, it is clear that the tide may be turning with the balance beginning to tip ever so slightly towards the Far East.

With China only recently entering the worldwide M&A scene, the existing landscape has been predominantly dominated by the US and as such it is not surprising to find much academic attention centred on this market. Empirical evidence thus far is unanimous in its agreement that the shareholders of US targets gain whilst bidders lose-out (Jensen and Ruback, 1983; Mueller, 1985). At the heart of recent investigations, the US merger market has shown evidence of many behavioural heuristics, such as managerial overconfidence (Roll, 1986) and these have been shown to affect merger gains. Conversely, the historically insular Chinese market is only recently becoming the source of academic attention. It offers much in terms of empirical research due to the unique environment of the market. For instance, in terms of merger activity in China, most firms have ownership structures unique to the market (see Zhou et al., 2010). The government plays a large role in the operations of firms through predominant government ownership in state-owned enterprises. Recent empirical research conducted has found that government intervention in the merger market in China is positively associated with the performance of firms which points to the imbued networking value of political connections. With this in mind, it becomes understandable why, as a loose proxy for political intent, the state influenced economic decisions of Chinese firms are attracting political attention across the world.

With the west largely following the model of the US, with limited government intervention, and China operating in stark contrast, we believe it is imperative to assess which merger market performs best for their shareholders in terms of value creation. We separate the merger sample for each market by deal outcome – that is, by those which succeed and complete their deals against those which do not and fail to consummate. The premise is that if successful deals outperform those which fail in each market then value has been created for acquiring firms. This is based on the idea of market timing (Shleifer and Vishny, 2003). For example, if outperformance is witnessed in stock-financed deals, then value has been created through the reduction of losses as overvalued equity reverts downward to its intrinsic level. In this way, the investigations also indirectly examine the ability of bidders to correctly time the market in each context.

Our first proposition considers the ability of firms in each market to create value from merger activity. We examine the performance of deals and comparatively assess two samples in terms of deal outcome. The analysis considers the performance of successfully completed deals relative to those deals which fail. Should successfully completed deals outperform those

that fail then value will have been created by the merger completing for the shareholders involved.

Secondly, we assess the ability of firms to correctly time the market. Shleifer and Vishny (2003) argue that firms use equity to pay for a less overvalued target only if the manager correctly times the market so that his firm is sufficiently overvalued. In this way, long-term losses are reduced as the firm is able to raise the intrinsic value of the firm with the acquisition of the target's assets. With this view in mind, we investigate the ability of firms in either market to correctly time the market. If there is a significant outperformance of firms which use equity over those which announced their intention to then the successful bidder will have correctly timed the market. This outperformance should occur due to the signalling content of the method of payment used (see Travlos, 1987). If the failed bidder announces the intention to use equity to pay for their intended target then the market has become aware of the manager's belief that his/her firm is overvalued. Value could be created by this only if the deal completes so that the intrinsic value of the bidder increases. When the deal fails, the intrinsic value is not raised but the revelation of bidders overvaluation to the market has already occurred. Thus, we investigate the performance of the bidding firms to be able to correctly time the market and the ability to create value from their overvaluation.

Finally, we comparatively assess the performance of US bidders versus Chinese bidders. The unique environment of the Chinese market is believed to benefit the bidder's shareholders. Zhou et al. (2010) find that the involvement of the government in the merger process in China is to the benefit of the shareholders. We reason that if this is the case, then the Chinese merger sample should outperform the bidders in the US due to the widely held view that mergers in the west return zero-to-negative abnormal returns. However, the US merger market is experienced and we could see firms benefitting from superior market-timing ability. This work takes heed of the current climate and examines the relative performance of bidders in the US versus those in China.

Using a comprehensive sample of merger deals for both countries, as sourced by Thomson One Banker SDC, we examine the short-run performance of bidders using a five-day window centred around the initial date of announcement of the deal. Our long-term performance uses the buy-and-hold (BHAR) methodology for a twelve month holding period employing the use

of bootstrapped t-statistics so as to control for the possible skewness effect (see Barber and Lyon, 1997).

We find that corporate value is created for shareholders in both countries via merger activity. On the date of announcement, Chinese bidders significantly gain 1.85% (p value = 0.000) while US bidders enjoy a 1.25% positive market return (0.000). While the Chinese sample significantly outperforms the US on average by 0.60% (0.087), the most interesting result is that the US significantly underperforms in terms of comparative stock-financed deals. China enjoys 5.57% (0.016) significant outperformance of the US when using stock to acquire a target firm.

When we transpire our analysis into the long-run we find this pattern continues to hold. While the US sample conforms to the findings of the existing literature with significant losses to stock-financed deals – in line with the overvaluation motive for merger activity – the Chinese sample is in complete contrast with significant gains of 40.65% (0.001), significantly outperforming the US by 70.84% (0.000). Despite this underperformance, US bidders do still gain from using equity through significantly reducing losses by 21.46% (0.000) as successful bids outperform those which fail. This supports the existing literature and related evidence concerning market timing in the US.

However, the significantly positive return to Chinese bidders seems to suggest that market timing is not the driving force. We progress our analysis to account for the valuation of the market at the time of deal announcement and find that Chinese bidders appear to significantly capitalise on low-valuation markets. Deals conducted in low-valuation markets outnumber those in high-valuation periods and we see a significant outperformance of 4.67% (0.001) of deals conducted in the former relative to the latter over the short-run, while this remains true in the long-run with these gains rising to 52.54% (0.028). The US on the other hand significantly gains 1.34% (0.031) from stock deals conducted in high valuation markets relative to those conducted in low valuation markets, supportive of market-timing.

This evidence shows that whilst the US does indeed capitalise upon with market timing in high-valuation markets with the use of overvalued equity, Chinese bidders capitalise through conducting deals in low-valuation markets. When the market is valued low, China appears to capitalise almost on a value strategy, buying low and benefitting from the upturn as the

market inevitably begins to rise upward. This strategy certainly appears to be outperforming the US and is definitely profitable for Chinese bidders. It thus seems that experience does not always make the difference as the Chinese bidder has coveted the ability to exploit market valuations to their benefit as cheap overseas acquisitions are resulting in positive inflows to the domestic market in terms of not only finances but increasingly in terms of technological inflows and geographical resources. Time will tell how the US copes but this paper undoubtedly offers much support for the Chinese merger model.

The paper will continue as follows. Section 2 will review the literature and present the development of our hypotheses. Section 3 explains the methodology behind the construction of the samples analysed and the approaches adopted for examining merger performance in both the short and long-run. Sections 4 and 5 provide the results before Section 6 formally concludes the work.

## **2. Literature Review**

### **2.1. The Chinese Merger Uprising**

Since entry into the WTO, China has become more dependent on foreign markets for sale of its goods. Furthermore, to continue selling, the Chinese market must strive to keep ahead of the competition. Increasingly, China is looking outward to get that competitive advantage. However, as they do so, they are encountering many difficulties from foreign countries, particularly developed countries (Zhile, 2007). Instead of adhering to their proclamations, developed markets are becoming increasingly wary of the Chinese bidder and are exhibiting economic nationalism on a new scale. Political governments are intervening in Chinese merger deals so as to protect their domestic bidders whilst simultaneously advocating that China open up and allow their firms to enter the insular Chinese market. This double hypocrisy is of course causing political tensions to increase and is undoubtedly set to cause many problems in the forthcoming years for Chinese firms attempting to invest abroad.

In particular, the US government is concerned with the level of Chinese mergers abroad and have blocked specific deals from companies such as COSCO, the Chinese state shipping company and China National Offshore Oil Company. The US government fears that acquisitions could shift the power balance too much towards China whilst they also claim that

technological acquisitions are a threat to the security of US intelligence, clearly showing how the world views China as a competitor rather than an ally (The Economist, 2010).

Despite these oppositions, 2010 has seen some of the largest Chinese acquisitions to date. The quintessential example would be that of the relatively unknown Geely formally acquiring the well-established western Volvo brand for \$2bn. Furthermore, Cosco has bought up ports across the world, including Greece and Italy. There are many other acquisitions being sought including American Gas and Brazilian Electricity grids (The Economist, 2010). In fact, China's cross-border merger activity accounted for one-tenth of all cross-border deals in 2010 by deal value. This evidence shows that China is indeed emerging as a world superpower with plenty of savings to continue this shopping spree. The question is how good these deals are and what strategy are Chinese bidders following. This is what we will examine but first, let us continue with a review of the existing literature in this field.

## 2.2.Existing Literature

As noted much academic literature pertains to the US. It has long been the dominant force for mergers and still accounts for most merger activity today. But what are the gains involved? Why do firms keep merging? Mueller (1985) suggests that while target firm shareholders are undoubtedly better off, much literary evidence has been unable to decide whether bidders truly benefit from merger activity. DePamphilis (2008) summarizes negative to zero abnormal returns to be earned by bidders around the announcement date of a deal (see Jensen and Ruback, 1983; Hviid and Prendergast, 1993; Bradley *et al.*, 1983; Loughran and Vijh, 1997; Sudarsanam and Mahate, 2006; De *et al.*, 1996). However, many factors have been proposed by the field of behavioural finance to help explain why mergers continue to be initiated despite this evidence.

A series of merger waves since the late eighties has shown merger performance as varying across both country and deal characteristics. In the US, many deals have involved the use of equity as the method of payment (see Andrade *et al.*, 2001; Savor and Lu, 2009). Literary evidence from the school of behavioural finance has supported the notion of firm misvaluation as a root source of the motive for merger activity. The market-timing hypothesis, as outlined by Shleifer and Vishny (2003), principally suggests that the use of overvalued equity to acquire a less overvalued target cushions the losses to be experienced by

shareholders in the long-run through raising the intrinsic value of the bidding firm through the acquisition of the targets assets.

Rhodes-Kropf et al. (2005) employ the use of the market-to-book ratio in an empirical investigation of potential firm misvaluation and find support for the predictions of Shleifer and Vishny (2003). Through a thorough investigation into the market-to-book ratio, Rhodes-Kropf et al. (2005) find stock acquirers to be more overvalued than those using cash. Evidence towards the link between M&A method of payment and market-wide valuation states is also found with particular emphasis placed on the short-run deviations away from the intrinsic valuation as outlined by long-run trends particularly when stock is used. Interestingly, it is also found that deals which fail display larger differences in terms of valuation than those which complete. Overall, successful deals show higher levels of misvaluation (Rhodes-Kropf et al., 2005: 601) to the benefit of shareholders.

In recent times, Savor and Lu (2009) directly test the implications of market-timing in the US through intuitively assessing value creation. They construct a sample of firms which fail to complete their deals and use this as a proxy to assess how the successful acquirers would have performed should their merger deal have not completed. Should the successful acquirers outperform those which fail then value is posited to be created, even if both incur losses. The work finds that successful bidders outperform those which fail in a statistically significant and economically meaningful way which is positively related with the length of the holding period analysed. In particular, support is found for stock-financed acquirers creating shareholder value through market-timing with a significant outperformance of successful bidders over those which fail, when both use, or intend to use, equity for their respective deals.

Whilst there is support for the behavioural market-timing hypothesis (Savor and Lu, 2009; Rhodes-Kropf et al., 2005; Dong et al., 2006), opposing theories have continually emerged with contrasting results. The importance of capital liquidity (a prominent explanatory factor for M&A waves within neoclassical finance) is highlighted as the key explanatory variable by Harford (2005) who notes that the misvaluation effect may in fact be as the result of a capital liquidity effect. In addition, Gugler et al. (2006), testing four hypotheses of merger waves, actually concludes that overvalued firms invoke higher losses than those which are



not overvalued directly because of their misvaluation directly refuting claims that overvalued acquirers create shareholder value in the long-run.

Furthermore, not only is overvaluation offered as a possible motive, but the political connections of firms are also believed to be highly correlated with firm performance and indirectly merger activity. Studying the US, Cooper et al. (2010) investigate the effects on performance of those firms which have contributed to the political campaigns of various parties. They find that political connections benefit firms and their cross-sectional stock returns positively and significantly.

The evidence for China is somewhat undecided. Chen et al. (2007) find that those firms which are privatised enjoy a positive market reaction and improved performance in the following period. In support, Sun and Tong (2003) find a firm's performance to be negatively related to state ownership. On the other hand, Zhou et al. (2010) find that bidding firms which are state-owned enterprises earn much higher returns than those which are privately held in the Chinese market. Furthermore, gains are increased when the target is also a state-owned enterprise.

The literature is unresolved over whether value creation does in fact truly occur for bidding firm shareholders. While the US is well experienced in terms of merger activity, the Chinese merger market is steadily growing larger each year. With this in mind, we examine in this work whether mergers in either market create value. Finally, we comparatively assess the performance of merger deals dependent upon deal outcome in each market to investigate which environment leads to better gains for bidding firm shareholders.

### 2.3.Hypotheses Development

The existing literature (Savor and Lu, 2009) has argued that value is created for bidding firm shareholders if successfully completed deals outperform those which fail. The outperformance is measured in terms of the favourable wealth effects enjoyed by the bidding firm shareholders. So, in other words, mergers are a value-creating corporate action if the returns to deals which succeed are higher than the returns to deals which fail. Even though both may invoke losses, the premise holds that we only require successful deals to outperform those which fail. If this is true, then merger activity benefits bidding-firm

shareholders through providing higher returns. This leads us to the testable proposition: *If mergers are in the best interests of existing shareholders, then successfully completed deals should outperform those which subsequently fail.*

Furthermore, the literature provides motivations for merger activity driven by firm misvaluations (Shelifer and Vishny, 2003; Draper and Paudyal, 2008; Savor and Lu, 2009). Travlos (1987) noted the informational content of merger financing. Cash financing of a merger is believed to signal undervaluation while firms which use equity will only do so if they believe their firm to be overvalued. US evidence finds that overvalued acquirers which use equity to finance their mergers can create value through cushioning the collapse of the firm's stock price by acquiring the assets of a target firm. In this way, managers conduct mergers to raise the intrinsic valuation of their firm in order to lower the amount by which the stock price will fall once the market becomes aware of the firm's misvaluation. However, if the deal continues to fail then the managerial team will have failed to raise the intrinsic valuation of the firm but will still have signalled its overvaluation to the market through the intended use of equity. If overvaluation does indeed create value through the successful completion of the deal, then this leads us to the testable proposition: *Successful acquirers using equity should outperform failed acquirers which intended to use equity to finance their merger deal.*

Finally, we relatively assess the performance of US bidders to those in China. Chinese bidders predominantly are influenced by the unique nature of their domestic market. The government plays an influential role in the Chinese market and in terms of mergers, Zhou et al. (2010) find this to be to the benefit of bidding firm shareholders with positive market reactions. However, in the US, the literature notes the negative to zero abnormal returns earned by bidders (see Jensen and Ruback, 1983; DePamphilis, 2008). With this evidence, we are led to our final testable proposition: *Chinese bidders should outperform those in the US due to the favourable merger environment.*

### **3. Data and Methodology**

#### **3.1. Data Sources**

The data utilised in this work is sourced from Thomson One Banker, Thomson DataStream, WRDS and CSMAR. Information related to the characteristics of the deals (acquirer name, target nation, deal number, announcement date, date of effective completion/withdrawal, payment methods, deal status, deal value and target status) are taken from Thomson One Banker. The sample period is 01/01/1987-30/09/2010. The initial total sample sizes for China and the US were 2897 and 50,525 respectively. When we first conducted our analysis we utilised data from Thomson DataStream for both markets which reduced the sample sizes to 1053 deals for the Chinese market and 26,301 for the US. However, the results produced appeared inconsistent with the previous evidence and upon investigation we discovered that the Chinese data had errors due to matching the Western and Eastern calendars. To mitigate these errors, we used WRDS data for the US which produced a final US sample of 26,300 while we utilised CSMAR data for the Chinese market and this left us with a final China sample of 655 deals. This ensured that the results we report are robust.

Our main investigation is the performance of successful deals in relation to those which fail. Thus deal outcome plays a pivotal role in this study. We define a deal as being Successful if the acquirer gains control of the target – that is, it is listed on Thomson One Banker as Completed. We define a deal as having Failed as one in which the deal is withdrawn, as flagged by Thomson One Banker. We note that there may be problems through the fact that deals may fail for reasons endogenous to the acquirer. However, due to the small sample size of the Chinese sample as well as coupled with the fact not many deals fail in this market we did not believe this to be problematic or to cause question over our results as the analysis primarily focuses on the performance of each portfolio of deals relative to the same portfolio in the opposing market within this comparative analysis. In addition, while we do not report the results around the date of outcome, we did assess the market reaction to deals which succeed and those which fail at both the date of announcement and date of outcome and found that the market does not distinguish between the two at the date of announcement. With these concerns addressed, when we classify our deals under these terms, for the USA we have 24,693 completed deals and 1,608 deals which fail while for the Chinese sample, we have 610 successfully completed deals and 45 deals which failed.

[Insert Table 1 around here]

Table 1 reports the time distribution of these deals. We can see that there is a cluster of deals in the late nineties for the USA sample. This is no doubt as a result of the .Com bubble which resulted in a large merger and acquisition wave. For the Chinese sample, we can see that the number of merger deals is growing larger as the time period becomes more recent. This is a reflection of the current growth of the Chinese merger market. Since 2001, when China joined the WTO, mergers have been continually increasing. The government's decision to open up the market slightly by joining the WTO has been reflected in the growth of the domestic firms and the decisions to acquire. How good these mergers have been is something we will now proceed to investigate further.

### 3.2. Summary Statistics

[Insert Table 2 around here]

Table 2 depicts the summary statistics for Successful and Failed US and Chinese acquirers. We see that in the USA, Successful acquirers are larger than those US firms which fail to complete their merger deal. Their larger market value could be a factor aiding their success. Generally, the larger the firm then the more dominance it could have in a particular market. In this way, those firms in the US seem to benefit from their size in merger negotiations. Interestingly we witness the reverse for the samples relating to China. The failed acquirers are incredibly larger in China than those firms which successfully complete – or indeed to those in both samples centred in the USA. Interestingly, we looked at the deals in the Chinese market in which the bidder is ultimately owned by the government and found 80 deals to match this requirement. Of these 80 deals, not one fails. This offers early evidence of the favourable domestic environment of Chinese bidders through the involvement of the government.

While successful bidders in both markets predominantly attempt to takeover privately held target firms, failed bidders in the USA seem to largely favour public targets. Public targets are notably larger firms than those privately-held and thus it is undoubtedly more difficult to takeover a public target rather than their privately-held counterparts. Public target

acquisitions require firms to gain the approval of shareholders and this could indeed influence the takeover success. Thus, in some way, the choice of target in the US could be the source of the failure of the deal.

The nature of the two markets is shown to be in stark contrast when we examine the number of hostile bids. The Chinese sample flags most deals as being friendly or neutral with a small proportion lacking the information for deal attitude. On the other hand, we can see that for the US sample, 163 deals are of a hostile nature. While this is not necessarily a factor which can explain the failure of all deals in the US market - the number of hostile bids in the US forms only 10% of the Failed US sample - there is an overwhelming majority of hostile bids resulting in the bidder unsuccessfully ending their merger deal - 63% of hostile bids in the US result in Failure. In this way, hostile bids do not generate positive results for the bidding firm shareholders on the whole. Although there is not a prevalence for bids in the US to be of a hostile nature as they represent a small proportion of the full sample, their non-existence in the Chinese merger sample is an interesting point to note.

Finally, we can note that stock-financed deals prove to be the least popular form of merger financing over the sample period. However, the literature notes the potential timing ability of managers. This work will examine the view over whether US or Chinese managers can successfully create value for their shareholders through timing the market before presenting which does it best.

### 3.3. Methodological Approaches

The performance of the acquiring firms is measured in terms of both the short-run and long-run abnormal return's (AR) generated by the M&A deal. The short-run analysis centres on a five-day window employing the Market Adjusted Abnormal Return approach (Seiler 2004; Brown and Warner, 1985) whilst the long-run is assessed using the Buy-and-Hold Abnormal Return (BHAR) approach favoured by Buchheim *et al.* (2001). The analyses aim to identify what the short-run market reactions are in terms of AR's generated before determining whether the short-run ARs transpire into long-run gains for the shareholder group.

### 3.3.1. Short Term Analysis

The short-run analysis is conducted as an event-study with a window of five days (-2,+2) around the M&A announcement date. We calculate the normal returns of the firm using daily price index data as follows:

$$R_i = \ln\left(\frac{P_t}{P_{t-1}}\right) \quad (1)$$

Where  $R_i$  relates to the daily normal return of stock  $i$  while  $P_t$  and  $P_{t-1}$  refer to the stock price on day  $t$  and  $t - 1$  respectively.

In determining short-run AR's, we note the abundant methods available (Sharpe, 1964; Lintner, 1965; Lyon et al., 1999; Brown and Warner, 1985). Due to the restrictions of models such as the CAPM (Roll, 1977), we follow the guidelines of Seiler (2004) that AR's are defined as anything earned above the market return each day so that the expected return of a stock is assumed to be that earned by the market (Seiler, 2004: 220). This market adjusted AR approach is in line with Brown and Warner (1980) so that AR's are the excess stock return adjusted for the market over the sample period (Buchheim *et al.*, 2001: 22). With this in mind, the normal returns of the stock ( $R_i$ ) must have the normal market return ( $R_m$ ) deducted in order to generate the AR on each of the five day's as follows:

$$AR_i = R_i - R_m \quad (2)$$

Where  $R_m = \ln\left(\frac{P_t}{P_{t-1}}\right)$ .  $R_m$  is the normal market return calculated using the daily price of the FTSE Allshare over the sample period. The AR's are summated to give the cumulative AR (CAR) as follows:

$$CAR_i = \sum_{i=0}^n AR_i \quad (3)$$

Given the role the market is posited to play in potential firm misvaluation, we believe this model to be particularly appropriate in determining the AR's to be analysed through allowing for us to see whether stock returns move in line with the ups and downs of the market.

Short-Run univariate analysis will involve the above process for each portfolio of M&A deals. Their characteristics will be analysed in terms of the descriptive statistics based on the portfolio CAR's before we compute the portfolio t-value, and following Seiler (2004), the T-statistics are computed using the formula:

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

Where  $AR_T$  refers to the sample mean, and  $\sigma(AR_T)$  is the cross-sectional sample standard deviation for the sample of  $n$  firms.

### 3.3.2. Long Term Analysis

In assessing acquirer long-run performance, Fama (1998) claims that different methodological approaches produce different results for long-run AR's so that testing in effect becomes a one over the choice of econometric model rather than a direct test of the study at hand. He further stresses that the assessment of various events with different models is noted often to eradicate the existence of an anomaly. As a consequence, choosing the correct model is therefore imperative.

To combat problems associated with long-run analysis and the noted bad-model problem (Fama, 1998), we intended to employ the use of two well-known long-term approaches, the BHAR approach and the Calendar-Time Portfolio approach (CTPA). However, upon implementation of the CTPA, we encountered a number of problems with the Failed sample due to its smaller size in China while there were no such problems for the Successful sample. With this in mind, there was a question over our ability to reliably compare such sample results given the different periods assessed. In this way, the discussion of long-run acquirer performance will be analysed in terms of the BHAR approach.

As pointed out by Buchheim *et al* (2001: 28), the BHAR approach employed measures the difference between the compounded actual return and the compound predicted return, and it is calculated as follows:

$$BHAR_{it} = \prod_{t=0}^T [1 + R_{it}] - \prod_{t=0}^T [1 + R_{mt}] \quad (5)$$

where  $R_{it}$  and  $R_{mt}$  are the arithmetic returns including dividends on security  $i$  and the FTSE Allshare value-weighted index respectively at time  $t$ . The results are reported for a twelve month holding period.

The BHAR approach itself is well-used within recent literature and is the advocated method for long-term return analysis proposed by Lyon et al. (1999). They indicate that it provides an accurate measure of the AR's experienced by an investor. However, Fama (1998) argues that long-run BHAR's suffer from compounding expected-return's and their associated problems from short-run analysis. Furthermore, BHAR's can produce a statistically significant result even when none is present due to the effect of short-run movements (Buchheim *et al.*, 2001: 28). The possible positive-skewness problem can yield potentially misleading results and thus may cast doubt over the efficiency of the output generated from statistical analysis.

Therefore, we employ the use of a Bootstrapped T-Statistic. This statistical method has gained prominence within the literature as research began to criticise the potential skewed-distribution problem of the BHAR approach (Barber and Lyon, 1997). BHAR's do accurately reflect the effect of a particular corporate event upon the investor and their holdings (Buchheim *et al.*, 2001: 28) and it is for this reason that they are utilized for assessing the robustness of the long-run performance of both Chinese and US acquirers.

In order to ensure the reliability of the results produced, robustness checks for the short and long-run are also conducted. The short-run window has been shortened from five-days to three-days to further assess the impact the M&A announcement has upon the gains created. The 5-day CAR's results are reported and we also find that 3-day CAR's are very similar<sup>1</sup>. Finally, the long-run window has been extended from 12 months to 36 months. We find that the results largely support our main findings although some coefficients lose their significance.

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<sup>1</sup>For brevity, 3-day CAR's results are available upon request.



### 3.3.3. Multivariate Analysis

In addition to the short-run and long-run univariate analyses, a multivariate analysis is conducted to examine the factors explaining the reactions of the market reflected in the acquiring firm's share prices. As criticised by Draper and Paudyal (2008), univariate analysis fails to allow for the interaction of alternative variables upon acquirer's gains, and consequently we extend our analysis to model such interactions. The 5-day CAR's at the date of announcement are investigated in the following multivariate framework:

$$5 \text{ Day CAR} = \alpha + \sum_{i=1}^N \beta_i X_i + \varepsilon_i \quad (6)$$

In equation six, the constant reflects '*everything after controlling for the effects of all the explanatory variables*' (Draper and Paudyal, 2008: 395). In this setting, we include a vector of explanatory variables including our deal outcome and acquirer nation factor. The full dummy variables are as follows: Successful takes the value of one if the deal in question was successfully completed; US bidder takes the value of one if the acquirer of the deal was a US firm; Cash (Stock) takes the value of one if the deal was financed using 100% cash (stock); Diversifying takes the value of one if the acquirer and target were in different industries according to their four-digit Primary SIC code; Public Target if the target was a publicly listed firm; Foreign if the target was in a market other than the domestic market of the bidder; and finally, Competition takes the value of one if the deal had more than one bidder involved in the merger contest. Finally, we also include the MV of the bidder twenty days before the deal announcement as well as the MTBV of the bidder to control for known value and size effects.

## 4. Empirical Results

### 4.1. Short Run Analysis

[Insert Table 3 around here]

Earlier we suggested that those bidders which complete their deals should outperform those that do not if mergers are in the best interests of their shareholders. This formed our first proposition. Table 3 displays the short-run performance of Chinese and US bidders centred

upon a five-day event window. In terms of the US, we find no statistically significant difference between those bidders which succeed and those which do not around the date of merger announcement. When we analyse the average market reaction to the announcement of US deals, we see positive and significant gains for bidders of circa 1.25% (0.000). This positive reception is regardless of the future outcome of the deal so that the market does not discriminate at deal announcement between those deals which succeed against those which fail, as evidenced by the insignificant difference of 0.03% (0.904).

Despite gains being generated by US bidders in the overall sample, these are significantly outperformed by bidders in the Chinese sample. Overall, Chinese bidders gain 1.85% (0.000), 0.60% (0.087) significantly higher than the US. The most interesting result is that stock-financed deals in China generate 6.39% (0.006) positive returns. This is significantly higher than the US. The announcement of a stock-financed deal in the US produces a positive market reaction but this is significantly worse than China, some 5.57% (0.016) lower.

The method of payment has been found to be explanatory for analysing merger returns. The literature discussed earlier noted the informational content of merger financing. Travlos (1987) wrote that firms which are undervalued will use cash to acquire a target firm. On the other hand, those managers who believe their firm to be overvalued will acquire a less overvalued target using equity so as to cushion the losses to be experienced by their shareholders by raising the intrinsic value of the acquirer's share price. This is principally suggested within the market timing hypothesis as outlined by Shleifer and Vishny (2003) and supported by Savor and Lu (2009).

We hypothesized following the literature in this related field that successful stock deals should significantly outperform those which fail. Table 3 finds that those firms which intend to use equity to finance their merger deals in the US benefit from announcement returns of 0.83% (0.000) overall. However, there is no statistical outperformance for successful deals relative to failed ones in the short-run. This confirms that the market does not distinguish at the time of announcement between deals which succeed and those which fail, thus mitigating concerns that the market might actually cause the failed deals to unsuccessfully end. In addition, it also lends support to the notion that the announcement of a merger partially hides the overvaluation of the firm with more attention being placed on the deal itself rather than the method of payment employed.

Interestingly, the stock financed deals in China do not seem to be signalling valuation information to the market and again we see an insignificant difference of 7.70% (0.233). The fact that the government plays such a large role in these acquisitions could be reflected in these stock acquisitions in particular. But, when we examine the ultimate ownership of the Chinese firms, none of the 80 firms ultimately owned by the government seem to be generating these returns. In fact, for those firms in question, insignificant returns are generated and only a small few are involved in an all-paper transaction. What is more likely to be true is that China, as an emerging market, has the advantage of riding an upward trend in its equity markets. It seems likely as China continues to grow and develop that this the trend will move in this upward fashion for some time to come. Thus, equity financed deals and the returns experienced can be somewhat attributed to the state of the developing Chinese market. Overall, the short run results reject our second proposition. However, it is in the long-run where the market is believed to have accounted for the overvaluation and thus we will shortly turn our attentions to the long-run performance of these firms.

In our final proposition, we supposed that because of the large government intervention in the Chinese market, this would be to the benefit of the bidding firm shareholders. Cooper et al. (2010) find that political connections in the US market benefit firms while Zhou et al. (2010) find state ownership in the Chinese merger market significantly benefits merging firms, be it the acquirer or target. We find support here with a significant outperformance of Chinese bidders to those in the US and suppose that the favourable, supportive Chinese domestic environment is to the benefit of bidders. On average, US bidders significantly underperform those in China by 0.60% (0.087) on the date of merger announcement and thus we find evidence in favour of our final proposition. We find support particularly in terms of Chinese stock-financed deals which succeed with a 7.52% (0.002) outperformance over the US. It may be the case that the high government involvement in the Chinese market may in fact soak the inefficiencies of any potential losses. This is conjecture at this stage but does leave the door open for deeper examination.

## 4.2. Multivariate Analysis

[Insert Tables 4 and 5 around here]

While the evidence above has shown that both US and Chinese bidders create short-term shareholder value in the overall samples, the determinants of these results are unknown. As such, we examine the cross-sectional performance of the bidders in terms of various factors we believe to be influential in the creation or destruction of value. These variables are explained in Section 3.3.3. Tables 4 and 5 present the results for the Chinese and US samples respectively.

Following the regression framework as outlined in Equation 6, we regress the short-term five day CAR's for bidders in both China and the US around the announcement date in models (1) to (3). We instantaneously see that deal outcome does not play such an influential role at the announcement date in either country. This is not surprising given the univariate findings in Table 3 which show that the market does not differentiate between successful and failed deals at their announcement date, positively reacting to both.

As noted in the literature, there is a positive and statistically significant effect for the US sample in Model 2 in Table 5 for the cash dummy (believed to signal undervaluation), while the reverse is noted for those deals financed with stock (believed to signal overvaluation). This holds around the date of announcement and thus is supportive of the existing literature. However in the Chinese sample, we have a statistically significant positive effect for stock-financed deals endorsing once again the positive influence equity places over merger returns in China.

The conclusions from past research are shown to be particularly inexploratory when applied to the merger market in China. For example, Table 5 conforms to all research conclusions regarding mergers. Firstly, we see positive and significant gains for cash-financed deals while the reverse is found for stock-financing. Secondly, diversifying deals display a negative relationship to value creation. And finally, the public listing of a target is also shown to be negatively related to the returns generated. These results confirm the findings of past research. However, Table 4 shows that these findings do not apply to China. We find insignificant relations between returns and most variables including cash-financing, public

targets and diversification. The only significant result here is that stock-financing most certainly positively influences five-day CARs. Clearly, more research is required to explain what drives the Chinese merger market.

While the multivariate results have shown the differences between the two samples, the long-term performance of the firm's is imperative so that we can truly assess the validity of the value creation or destruction for the acquirer's shareholders.

#### 4.3. Long Run Analysis

[Insert Table 6 around here]

The true test of whether a firm has created value through conducting a M&A deal is primarily revealed in the long-run once the market has adjusted for all short-term reactions and has been able to effectively view the success of the combination in question. We analyse the long-run over a twelve month holding period in Table 6 and find that bidders continue to create shareholder value. In particular, US bidders see successful acquirers significantly outperform those which fail by 10.70% (0.000) in line with our first proposition. Despite significant losses being incurred, from the date of announcement, US bidders reduce these losses by 10.70% (0.000) for their shareholders through conducting merger activity. However, this does not hold for the Chinese sample. The results indicate that on average Chinese bidders do not earn returns statistically different from zero. This gives us an early indication that the Chinese market is not driven by market-timing.

Our second hypothesis centred on the value creation emanating from the use of overvalued equity to purchase less overvalued targets. The pattern regarding the method of payment continues to hold for the Chinese sample. While on average Chinese bidders neither destroy nor create value, there are significant positive gains to bidders which use equity to finance their deal. On the whole, Chinese stock-financed deals generate long-term gains of 40.65% (0.001) while these increase to 58.03% (0.003) when we focus on deals which succeed. However, there is no significant difference between successful stock deals and those which fail in the Chinese sample and thus our first proposition is rejected for China.

In terms of the US however, Table 6 shows that the existing literature is supported. US bidders which use equity significantly reduce the losses for their shareholders by 21.46% (0.000) from the date of announcement by completing their merger deals. These results prove that market timing is evident in the US market. However, it is not applicable to China and thus other factors may be driving these deals.

Earlier, the short-term findings showed that bidders in the US create less value for their shareholders than those in the Chinese market supporting our third hypothesis. Table 6 depicts the same findings. We see that US bidders significantly underperform those in China by 20.93% (0.000) from the date of announcement. Furthermore, this continues to hold across the method of payment. In particular, we can see that for stock-financed bidders, Chinese firms significantly outperform those in the US by 70.84% (0.000), even after controlling for the different sample sizes. Interestingly, the Chinese market is also significantly less punishing on deals which fail than the US with Failed bidders seeing an insignificant market reaction overall, some 32.99% (0.007) higher than the comparative market reaction in the US. This supports our third hypothesis strongly and shows that the Chinese market is less punishing than that of the west.

Overall, the evidence suggests that both US and Chinese bidders create both short and long-term value for their shareholders, but certainly do so in different ways. While those which succeed enjoy better gains in the short-term, over the long-term shareholders benefit from the reduction of losses in the US. We reason that for the US this could be as a result of successful market-timing due to the significant outperformance of deals conducted using stock-financing. However, the use of stock in China does not seem to portray the potential overvaluation of the firm. In the long term we see positive and significant gains to these bidders which contradict the belief that a merger can be used to acquire cheap assets using only overvalued equity. If anything, if these bidders are in fact overvalued at the time of the deal announcement, the results suggest they become even more so in the long-term. We recognise some other factor must be driving these results and our analysis now progresses to assess the performance of deals conducted in high valuation markets versus those conducted in low valuation markets to view whether Chinese bidders benefit from buying low and riding the market as it inevitably turns back up.

## **5. High versus Low Valuation Markets**

There has been a growing amount of literature relating existing financial theory to the valuation of the market. Shleifer and Vishny (2003) focus on how the valuation of the market can affect the individual firm's decision to acquire. As we have discussed, their work suggests that at the firm-level, managers can generate corporate value through capitalising on overvalued equity to purchase a less overvalued target and its corresponding assets. Bouwman, Fuller and Nain (2009) argue that acquisitions conducted in high-valued markets (i.e. boom periods) are fundamentally different to those conducted in low-valuation markets (i.e. bearish periods).

With inspiration from these findings, we now control for the valuation of the market. It may be the case that Chinese firms conduct their acquisitions adhering to a different strategy than those in the US. Evidence in this work has already been supportive of literary conclusions regarding the existence and worth of market-timing in the US. But we have not discovered what is driving the Chinese merger market. Through accounting for the valuation of the market, we may be able to ascertain whether Chinese deals are operating on a value strategy, that is, buy when the market is low and profit as the market inevitably reverts upward.

### **5.1. Classification Method**

To classify the deals as being within a high or low valuation period, we follow the methodology of Bouwman et al. (2009). Because the market PE has gradually drifted upward overtime, we first must detrend the PE for the Chinese and US markets to ensure we don't simply end up with recent (earlier) transactions classified as having occurred in high-valuation (low-valuation) months. To do this, we remove the best-fit straight line from P/E of the month in question and the three preceding years. Each transaction month is then characterized as being above (below) average if the detrended P/E for each month in the China or US P/E data is above (below) the past three-year average. Finally, the top (bottom) 25% above average (below average) months are classified as high-valuation (low valuation). All other months, and the deals within, are classified as neutral valuation periods. Once this is done, 95 (7,608) Chinese (US) deals are classified as being conducted in high-valuation months, 362 (12, 681) in neutral valuation and 175 (5,998) in low valuation.

## 5.2.Results

[Insert Table 7 about here]

Table 7 reports the short-run CARs for deals conducted in high-valuation, neutral-valuation and low-valuation markets as classified above. In the US, bidders generate 1.50% (0.000) abnormal returns for shareholders announcing a bid in a high valuation market while those announced in a low valuation market generate 1.14% (0.000) returns. Furthermore, Table 7 shows that this outperformance is significant at the 5% level. When we control for the method of payment, the results further suggest that market timing is indeed prevalent in the US with a significant outperformance of stock-financed deals conducted in high valuation markets, in which the individual firm is also likely to be enjoying the positive market sentiment and thus is most probably overvalued, relative to those conducted in low valuation markets. Stock financed deals in the US which are undertaken when the market is highly valued generate 1.34% (0.031) significantly higher returns than those conducted in low valuation markets. This evidence reinforces the support found for market timing in the US.

While we can see that more deals in the US are conducted in high valuation markets than low ones generating significant wealth effects, the reverse is true for China. In the full sample, deals conducted in high valuation markets by Chinese bidders generate insignificant returns of -0.13% (0.906). Interestingly, those deals conducted when the market is valued low generate significant abnormal returns of 4.55% (0.000). This is significantly higher than those conducted when the market is highly valued, some 4.67% (0.001) higher. When we control for the method of payment, we once again see that market timing is not supported for the Chinese market. In particular, while bidders in China do indeed benefit from significant abnormal returns of 8.54% (0.075) when announcing an all-paper deal in a highly valued period, this is insignificantly different from those announced in a low valuation market, most probably due to the small sample size for stock deals conducted in high valued markets. In fact, most stock deals are conducted in low valuation markets. These generate insignificant returns but certainly support our earlier findings of inexistent market timing in China.

[Insert Table 8 about here]

However, what if managers are timing the market but focussing more on timing to capitalise on market upturns? That is, buy low and reap the rewards as the market corrects upwards.



When we look to the long-run evidence, this certainly seems to be supported. While cash and stock deals conducted in high valuation markets in China generate significant losses in the twelve months following the acquisition, at levels of 24.33% (0.031) and 48.09% (0.053) respectively, it is low-valuation markets which generate the positive returns. That is, deals which are executed when the market is valued low produce long-term significant wealth gains for Chinese bidders. Overall, Chinese bidders gain 55.34% (0.014) in the one year following their respective merger deal. This is 52.54% (0.028) higher than those conducted when the market is valued highly. The support for capitalising when market sentiment is low is further supported with the significant negative losses of 9.91% (0.069) incurred by bidders executing deals in neutral periods. It is only in low valuation markets where Chinese bidders gain. It certainly seems that the Chinese bidder is able to rationally seize the opportunity to get a good deal when the market is low to the benefit of the firm.

Table 8 also once again confirms the findings of scholars such as Shleifer and Vishny (2003) and Savor and Lu (2009). While stock-financed deals in the US do experience significant long-term losses on average of 31.47% (0.000) when we look to neutral valuation markets, bidders do indeed reduce these losses through successfully using overvalued equity to purchase a less overvalued target. US bidders which use overvalued equity in high valuation markets reduce the fall of their stock price to its intrinsic level over the following twelve months by 6.52% (0.035). This is once again supportive of the prevalence and value of market timing in the US market.

Overall, the evidence shows that US bidders successfully time the market to capitalise when market sentiment is high. The rational manager exploits the irrational market and uses overvalued equity to purchase a target and its assets thus cushioning the collapse of the long-term stock price to its intrinsic valuation. On the other hand, the Chinese bidder shows a shrewd ability to buy when the market is low and benefit as the market turns upward. The evidence shows that Chinese bidders significantly gain over the long-term when executing their merger deal in a low-valuation market. This produces significant results and it is arguably this which explains the outperformance of Chinese merger to those of the US. Chinese bidders incur no losses throughout their merger, and only benefit as the market turns upward. This seems an intuitive strategy for success and may certainly propel the dragon further forward towards global supremacy.

## **6. Concluding Remarks**

This study has assessed how strong the Chinese dragon really is in terms of the ever-increasing mergers and acquisitions by comparatively assessing Chinese deals with those conducted by the established merger market of the US.

In this work, we assess the performance of bidders which successfully complete their merger deals in relation to those that do not. While we find that the bidders in both markets create both short and long-term shareholder value, the results suggest that the two markets do not do so in the same manner. China significantly outperforms its American rivals at all times. The US bidder is shown to most ardently adhere to the literary findings of market timing. US bidders generate significant value for shareholders with the reduction of losses via merger activity as overvalued equity moves towards its lower true value. Acquiring assets raises the intrinsic valuation of the US bidder and cushions the collapse as the market rectifies the mispricing experienced.

On the other hand, the China sample shows no evidence of market timing in the same sense as that found for the US. The superior performance of the Chinese merger sample is driven by deals conducted in low valuation markets. This led us to discover that Chinese bidders show a unique shrewdness to capitalise when market sentiment is low, at times when firm values are most likely to be correspondingly depressed. This value strategy shows great promise and has the ability to further propel China forward as it continues to buy up global brands (see *The Economist*).

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**TABLE 1: TIME DISTRIBUTION OF DEALS**

This table shows the time-series distribution of merger bids we study in the paper. The Successful Sample contains all bids that resulted in an acquisition where the bidder gained control of the target. The Failed Sample contains all unsuccessful bids as flagged by Thomson One Banker. The China column relates to those deals where the bidder was a Chinese firm while the USA column relates to those deals where the bidder was a US firm.

YEAR	SUCCESSFUL								FAILED							
	ALL		CASH		STOCK		MIXED		ALL		CASH		STOCK		MIXED	
	CHINA	USA	CHINA	USA	CHINA	USA	CHINA	USA	CHINA	USA	CHINA	USA	CHINA	USA	CHINA	USA
1987	0	236	0	89	0	26	0	121	0	51	0	17	0	1	0	33
1988	0	277	0	107	0	21	0	149	0	73	0	27	0	11	0	35
1989	0	560	0	220	0	64	0	276	0	76	0	22	0	13	0	41
1990	0	533	0	202	0	69	0	262	0	48	0	11	0	12	0	25
1991	0	246	0	62	0	36	0	148	0	51	0	5	0	15	0	31
1992	0	21	0	12	0	0	0	9	0	50	0	7	0	12	0	31
1993	0	816	0	213	0	134	0	469	0	64	0	14	0	18	0	32
1994	1	1207	1	355	0	182	0	670	0	75	0	15	0	19	0	41
1995	3	1271	0	360	1	239	2	672	0	84	0	18	0	28	0	38
1996	7	1668	0	406	0	328	7	934	0	91	0	26	0	23	0	42
1997	7	2210	0	496	0	357	7	1,357	0	113	0	30	0	38	0	45
1998	8	2321	5	579	0	344	3	1,398	0	107	0	27	0	31	0	49
1999	6	1962	2	468	0	404	4	1,090	0	101	0	31	0	35	0	35
2000	13	1834	3	426	0	474	10	934	1	174	0	101	0	45	1	28
2001	10	1116	2	289	0	193	8	634	0	77	0	29	0	20	0	28
2002	36	1038	7	348	1	101	28	589	1	55	0	18	0	15	1	22
2003	57	974	11	304	0	92	46	578	5	49	1	16	0	13	4	20
2004	65	1197	20	430	0	82	45	685	5	50	0	18	0	14	5	18
2005	46	1,288	17	477	0	90	29	721	2	36	1	13	0	10	1	13
2006	44	1,290	10	512	1	72	33	706	4	49	2	15	0	9	2	25
2007	79	1,214	14	491	9	65	56	658	6	42	2	13	1	8	3	21
2008	106	863	28	347	5	51	73	465	12	54	3	27	5	8	4	19
2009	100	548	26	200	8	59	66	289	8	27	4	9	3	5	1	13
2010	22	3	8	1	0	0	14	2	1	11	0	6	0	0	1	5
<b>TOTAL</b>	<b>610</b>	<b>24,693</b>	<b>154</b>	<b>7,394</b>	<b>25</b>	<b>3,483</b>	<b>431</b>	<b>13,816</b>	<b>45</b>	<b>1,608</b>	<b>13</b>	<b>515</b>	<b>9</b>	<b>403</b>	<b>23</b>	<b>690</b>

**TABLE 2: SUMMARY STATISTICS**

Summary statistics are presented for both samples. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The China column relates to those deals where the bidder was a Chinese firm while the USA column relates to those deals where the bidder was a US firm. The market value (MV) is the market value of the acquirer twenty days before the announcement of the deal measured in millions. For the deal categories, we consider the cases of acquisitions of publicly listed targets (PUBLIC TARGET), privately held targets (PRIVATE TARGET), deals financed using 100% cash (CASH), 100% stock (STOCK), a mixture of cash and stock (MIXED), the number of hostile deals in each sample and finally, the average number of deals conducted by each acquirer.

STATISTIC	CHINA		USA	
	SUCCESSFUL	FAILED	SUCCESSFUL	FAILED
<i>N</i>	610	45	24,693	1,607
<i>MV (20 days prior to Announcement)</i>	11,447	63,347	6,057	4,260
<i>Public Target</i>	50	5	5,164	960
<i>Private Target</i>	164	10	11,506	343
<i>Cash</i>	154	13	7,394	515
<i>Stock</i>	25	9	3,483	403
<i>Mixed</i>	431	23	13,816	690
<i>Number of Hostile Deals</i>	0	0	61	102
<i>Average Number of Acquirer Deals</i>	2	2	6	4

**TABLE 3: SHORT RUN PERFORMANCE OF BIDDERS**

The following table presents the short-run 5 day CAR's (-2,+2) for the samples around the announcement date of the deal (DA) for the successful and failed samples. We measure the cumulative abnormal return using the formula  $CAR_i = \sum_{i=0}^n AR_i$ . The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The China column relates to those deals where the bidder was a Chinese firm while the USA column relates to those deals where the bidder was a US firm. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes using STATA when computing the differentials. The P-Value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted a, b and c respectively.

	CHINA				USA				DIFFERENTIAL (CHINA-USA)			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
<b>PANEL A: OVERALL SAMPLES</b>												
<b>MEAN</b>	1.85%	1.99%	6.39%	1.46%	1.25%	1.39%	0.83%	1.28%	0.60%	0.60%	5.57%	0.17%
<b>P-VALUE</b>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.006) <sup>a</sup>	(0.001) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.087) <sup>c</sup>	(0.308)	(0.016) <sup>b</sup>	(0.682)
<b>N</b>	655	167	34	454	26,300	7,909	3,886	14,505				
<b>PANEL B: SUCCESSFUL ACQUIRERS</b>												
<b>MEAN</b>	1.94%	1.95%	8.43%	1.56%	1.25%	1.39%	0.91%	1.26%	0.69%	0.57%	7.52%	0.29%
<b>P-VALUE</b>	(0.000) <sup>a</sup>	(0.002) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.057) <sup>c</sup>	(0.604)	(0.002) <sup>a</sup>	(0.503)
<b>N</b>	610	154	25	431	24,693	7,394	3,483	13,816				
<b>PANEL C: FAILED ACQUIRERS</b>												
<b>MEAN</b>	0.63%	2.48%	0.73%	-0.45%	1.22%	1.51%	0.10%	1.66%	-0.59%	0.97%	0.63%	-2.12%
<b>P-VALUE</b>	(0.673)	(0.208)	(0.900)	(0.789)	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.898)	(0.000) <sup>a</sup>	(0.704)	(0.619)	(0.915)	(0.238)
<b>N</b>	45	13	9	23	1,607	515	403	689				
<b>PANEL D: DIFFERENTIAL PERFORMANCE (PANEL B – PANEL C)</b>												
<b>DIFF</b>	1.31%	-0.53%	7.70%	2.01%	0.03%	-0.12%	0.81%	-0.40%				
<b>P-VALUE</b>	(0.397)	(0.790)	(0.233)	(0.253)	(0.904)	(0.779)	(0.318)	(0.386)				



**TABLE 4: CHINA MULTIVARIATE ANALYSIS**

This table presents the results for the multivariate analysis of the Chinese sample – both the successful and failed deals combined. The successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. In models (1) to (3) we regress 5 day CARs around the date of deal announcement. We include a dummy which takes the value of one - if the deal is successfully completed (SUCCESSFUL); if the deal was financed using 100% cash (CASH); if the deal was financed using 100% stock (STOCK); if the target was publicly listed (PUBLIC TARGET); if the target was in a different industry to the bidder as measured using the first two digits of the four digit Primary SIC code of the two firms (DIVERSIFYING); and finally if the target was listed in a different nation to the bidder, i.e. cross-border (FOREIGN). We also include the MTBV and MV of the bidder twenty days prior to the announcement of the deal. We control for the possible existence of homoscedasticity using STATA and report robust T-Statistics. The P-Value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted a, b and c respectively.

	(1)	(2)	(3)
<b>SUCCESSFUL</b>	0.0077 (0.725)	0.0076 (0.730)	0.0168 (0.443)
<b>CASH</b>		0.0065 (0.608)	
<b>STOCK</b>			0.0758 (0.014) <sup>b</sup>
<b>PUBLIC TARGET</b>	0.013 (0.573)	0.011 (0.615)	0.000 (0.985)
<b>DIVERSIFYING</b>	0.0174 (0.132)	0.0176 (0.129)	0.0160 (0.163)
<b>FOREIGN</b>	0.0101 (0.681)	0.0097 (0.694)	0.0188 (0.446)
<b>MTBV</b>	-0.0001 (0.939)	0.0000 (0.965)	0.0000 (0.996)
<b>MV</b>	0.0000 (0.756)	0.0000 (0.809)	0.0000 (0.611)
<b>CONSTANT</b>	-0.0034 (0.888)	-0.0052 (0.831)	-0.0102 (0.671)
<b>F-STAT</b>	0.62 (0.738)	0.58 (0.798)	1.33 (0.231)
<b>R-SQUARED</b>	0.0183	0.0195	0.0437

**TABLE 5: US MULTIVARIATE ANALYSIS**

This table presents the results for the multivariate analysis of the USA sample – both the successful and failed deals combined. The successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. In models (1) to (3) we regress 5 day CARs around the date of deal announcement. We include a dummy which takes the value of one - if the deal is successfully completed (SUCCESSFUL); if the deal was financed using 100% cash (CASH); if the deal was financed using 100% stock (STOCK); if the target was publicly listed (PUBLIC TARGET); if the target was in a different industry to the bidder as measured using the first two digits of the four digit Primary SIC code of the two firms (DIVERSIFYING); and finally if the target was listed in a different nation to the bidder, i.e. cross-border (FOREIGN). We also include the MTBV and MV of the bidder twenty days prior to the announcement of the deal. Additionally, we include a further dummy variable which takes the value of one if there was more than one bidder for the target, i.e. the bid was contested. We control for the possible existence of homoscedasticity using STATA and report robust T-Statistics. The P-Value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted a, b and c respectively.

	(1)	(2)	(3)
<b>SUCCESSFUL</b>	-0.0009 (0.775)	-0.0010 (0.746)	-0.0015 (0.634)
<b>CASH</b>		0.0053 (0.000) <sup>a</sup>	
<b>STOCK</b>			-0.0086 (0.000) <sup>a</sup>
<b>PUBLIC TARGET</b>	-0.014 (0.000) <sup>a</sup>	-0.015 (0.000) <sup>a</sup>	-0.013 (0.000) <sup>a</sup>
<b>DIVERSIFYING</b>	-0.0046 (0.001) <sup>a</sup>	-0.0044 (0.001) <sup>a</sup>	-0.0046 (0.001) <sup>a</sup>
<b>FOREIGN</b>	-0.0022 (0.204)	-0.0022 (0.204)	-0.0027 (0.122)
<b>MTBV</b>	0.0000 (0.600)	0.0000 (0.558)	0.0000 (0.546)
<b>MV</b>	0.0000 (0.017) <sup>b</sup>	0.0000 (0.015) <sup>b</sup>	0.0000 (0.018) <sup>b</sup>
<b>COMPETITION</b>	-0.0079 (0.136)	-0.0075 (0.155)	-0.0084 (0.112)
<b>CONSTANT</b>	0.0130 (0.000) <sup>a</sup>	0.0115 (0.000) <sup>a</sup>	0.0146 (0.000) <sup>a</sup>
<b>F-STAT</b>	17.12 (0.000) <sup>a</sup>	16.81 (0.000) <sup>a</sup>	17.30 (0.000) <sup>a</sup>
<b>R-SQUARED</b>	0.0076	0.0084	0.0086

**TABLE 6: LONG TERM PERFORMANCE**

The following table presents the long-run 12 month BHAR's for the samples from the announcement date of the deal (DA) for the successful and failed samples. We measure the buy-and-hold abnormal return using the formula  $BHAR_{it} = \prod_{t=0}^T [1 + R_{it}] - \prod_{t=0}^T [1 + R_{mt}]$ . The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The China column relates to those deals where the bidder was a Chinese firm while the USA column relates to those deals where the bidder was a US firm. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes using STATA when computing the differentials. We report Bootstrapped T-Statistics for the results using STATA. The P-Value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted a, b and c respectively.

	CHINA				USA				DIFFERENTIAL (CHINA-USA)			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
<b>PANEL A: OVERALL PERFORMANCE</b>												
<b>MEAN</b>	5.33%	-7.65%	40.65%	3.70%	-15.60%	-8.57%	-30.19%	-15.50%	20.93%	0.92%	70.84%	19.20%
<b>P-VALUE</b>	(0.191)	(0.333)	(0.001) <sup>a</sup>	(0.495)	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.884)	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>
<b>N</b>	483	103	53	327	25,970	7,801	3,848	14,321				
<b>PANEL B: SUCCESSFUL ACQUIRERS</b>												
<b>MEAN</b>	5.11%	-8.72%	58.05%	4.08%	-14.94%	-8.74%	-27.98%	-14.96%	20.05%	0.03%	86.03%	19.04%
<b>P-VALUE</b>	(0.289)	(0.297)	(0.003) <sup>a</sup>	(0.426)	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>	(0.997)	(0.005) <sup>a</sup>	(0.000) <sup>a</sup>
<b>N</b>	434	96	31	307	24,391	7,295	3,452	13,644				
<b>PANEL C: FAILED ACQUIRERS</b>												
<b>MEAN</b>	7.35%	7.03%	16.13%	-2.20%	-25.64%	-6.05%	-49.44%	-26.37%	32.99%	13.08%	65.57%	24.17%
<b>P-VALUE</b>	(0.533)	(0.710)	(0.073) <sup>c</sup>	(0.955)	(0.000) <sup>a</sup>	(0.079) <sup>c</sup>	(0.002) <sup>a</sup>	(0.102)	(0.007) <sup>a</sup>	(0.526)	(0.000) <sup>a</sup>	(0.368)
<b>N</b>	49	7	22	20	1,579	506	396	677				
<b>PANEL D: DIFFERENTIAL PERFORMANCE (PANEL B – PANEL C)</b>												
<b>DIFF</b>	-2.24%	-15.75%	41.92%	6.28%	10.70%	-2.69%	21.46%	11.41%				
<b>P-VALUE</b>	(0.858)	(0.464)	(0.165)	(0.814)	(0.000) <sup>a</sup>	(0.310)	(0.000) <sup>a</sup>	(0.000) <sup>a</sup>				

**TABLE 7: HIGH/LOW VALUATION MARKETS: SHORT-RUN**

The following table presents the short-run 5 day CAR's (-2,+2) for the samples around the announcement date of the deal (DA) for the successful and failed samples. We measure the cumulative abnormal return using the formula  $CAR_i = \sum_{t=-2}^2 AR_{it}$ . The China column relates to those deals where the bidder was a Chinese firm while the USA column relates to those deals where the bidder was a US firm. Each deal is classified as being within either a high, neutral or low valuation market according to the month in which the deal was announced. Using monthly data for the Chinese and US markets, each month, and deals within, are classified as having occurred in either a high-valuation or low-valuation market if the detrended PE of that month belongs to the top (bottom) half of all detrended PEs above (below) the past three-year average. All other months, and deals within, are classified as having occurred in neutral-valuation markets. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes using STATA when computing the differentials. The P-Value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted a, b and c respectively.

	CHINA				USA				DIFFERENTIAL (CHINA-USA)			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
<b>PANEL A: HIGH VALUATION MARKETS</b>												
<b>MEAN</b>	-0.13%	3.08%	8.54%	-1.83%	1.50%	1.44%	1.11%	1.63%	-1.63%	1.64%	7.43%	-3.46%
<b>P-VALUE</b>	(0.906)	(0.198)	(0.075)	(0.131)	(0.000)	(0.000)	(0.002)	(0.000)	(0.134)	(0.486)	(0.112)	(0.005)
<b>N</b>	95	16	8	71	7,608	2,143	1,129	4,336				
<b>PANEL B: NEUTRAL VALUATION MARKETS</b>												
<b>MEAN</b>	0.75%	0.35%	7.65%	0.60%	1.14%	1.27%	1.16%	1.06%	-0.39%	-0.92%	6.49%	-0.46%
<b>P-VALUE</b>	(0.054)	(0.582)	(0.070)	(0.194)	(0.000)	(0.000)	(0.000)	(0.000)	(0.326)	(0.151)	(0.117)	(0.338)
<b>N</b>	362	95	11	256	12,681	3,902	1,863	6,916				
<b>PANEL C: LOW VALUATION MARKETS</b>												
<b>MEAN</b>	4.55%	4.49%	4.33%	4.60%	1.15%	1.60%	-0.23%	1.28%	3.40%	2.89%	4.56%	3.32%
<b>P-VALUE</b>	(0.000)	(0.001)	(0.251)	(0.000)	(0.000)	(0.000)	(0.651)	(0.000)	(0.000)	(0.033)	(0.232)	(0.001)
<b>N</b>	175	48	15	112	5,998	1,857	894	3,247				
<b>PANEL D: DIFFERENTIAL PERFORMANCE (PANEL A – PANEL C)</b>												
<b>DIFF</b>	-4.67%	-1.40%	4.20%	-6.43%	0.35%	-0.16%	1.34%	0.35%				
<b>P-VALUE</b>	(0.001)	(0.599)	(0.452)	(0.000)	(0.043)	(0.524)	(0.031)	(0.109)				

**TABLE 8: HIGH/LOW VALUATION MARKETS: LONG-RUN**

The following table presents the long-run 12 month BHAR's for the samples from the announcement date of the deal (DA) for the successful and failed samples. We measure the buy-and-hold abnormal return using the formula  $BHAR_{it} = \prod_{t=0}^T [1 + R_{it}] - \prod_{t=0}^T [1 + R_{mt}]$ . The China column relates to those deals where the bidder was a Chinese firm while the USA column relates to those deals where the bidder was a US firm. Each deal is classified as being within either a high, neutral or low valuation market according to the month in which the deal was announced. Using monthly data for the Chinese and US markets, each month, and deals within, are classified as having occurred in either a high-valuation or low-valuation market if the detrended PE of that month belongs to the top (bottom) half of all detrended PEs above (below) the past three-year average. All other months, and deals within, are classified as having occurred in neutral-valuation markets. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes using STATA when computing the differentials. We report Bootstrapped T-Statistics for the results using STATA. The P-Value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted a, b and c respectively.

	CHINA				USA				DIFFERENTIAL (CHINA-USA)			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
<b>PANEL A: HIGH VALUATION MARKETS</b>												
<b>MEAN</b>	2.80%	-24.33%	-48.09%	15.33%	-14.79%	-9.37%	-26.14%	-14.52%	17.59%	-14.95%	-21.95%	29.85%
<b>P-VALUE</b>	(0.769)	(0.031)	(0.053)	(0.214)	(0.000)	(0.000)	(0.000)	(0.000)	(0.068)	(0.167)	(0.303)	(0.018)
<b>N</b>	81	16	6	59	7,589	2,138	1,125	4,326				
<b>PANEL B: NEUTRAL VALUATION MARKETS</b>												
<b>MEAN</b>	-9.91%	-10.92%	-64.59%	-8.52%	-17.76%	-10.26%	-31.47%	-18.27%	7.85%	-0.66%	-33.12%	9.75%
<b>P-VALUE</b>	(0.069)	(0.132)	(0.019)	(0.221)	(0.000)	(0.000)	(0.000)	(0.000)	(0.151)	(0.928)	(0.096)	(0.163)
<b>N</b>	281	69	4	208	12,444	3,823	1,836	6,785				
<b>PANEL C: LOW VALUATION MARKETS</b>												
<b>MEAN</b>	55.34%	19.12%	177.77%	68.21%	-12.08%	-4.12%	-32.66%	-10.97%	67.42%	23.24%	210.43%	79.18%
<b>P-VALUE</b>	(0.014)	(0.645)	-	(0.012)	(0.000)	(0.000)	(0.000)	(0.000)	(0.004)	(0.578)	-	(0.005)
<b>N</b>	22	8	1	13	5,937	1,840	887	3,210				
<b>PANEL D: DIFFERENTIAL PERFORMANCE (PANEL A – PANEL C)</b>												
<b>DIFF</b>	-52.54%	-43.45%	-225.86%	-52.88%	-2.71%	-5.25%	6.52%	-3.55%				
<b>P-VALUE</b>	(0.028)	(0.325)	-	(0.057)	(0.006)	(0.001)	(0.035)	(0.007)				