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Abnormal Returns to Mergers and Acquisitions in Ten Asian Stock Markets

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ABSTRACT

The number of mergers and acquisitions (M&A) in emerging markets is growing at a rapid pace partly as a result of their usefulness as a corporate tool to pursue strategic growth. In this study, we investigate abnormal returns to shareholders of bidder firms around the day of M&A announcement for ten emerging Asian markets: China, India, Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan, and Thailand. Using a sample of 1,477 M&A deals in the ten emerging Asian markets, we find that the stock markets have expected positive cumulative abnormal returns in three different event windows: a two-day (0, 1) window, a three-day (-1, +1) window, and a five-day (-2, +2) window. Valuation effects of information leakage about M&A deals are statistically significant. The findings suggest that as investors reap the financial benefits associated with M&A deals, external growth through M&A activity may be highly recommended to managers.

JEL classification: G14, G15, G34

Keywords: Mergers and acquisitions; Asian emerging markets; Market efficiency; Abnormal returns.

I. INTRODUCTION

The volume of mergers and acquisitions (M&A) has greatly expanded over the past quarter century, particularly in developed markets. Once a U.S. business phenomenon, M&A deals are now commonly used by corporations throughout the world to pursue their goals and objectives related to strategic growth (Gaughan, 2005). Given the relatively recent increase in the number of M&A deals occurring in emerging markets, studies in these markets are relatively few and contrast with the extensive array of M&A studies in the U.S. and other developed countries.

All U.S. industries have been impacted by M&A deals, with most large firms in the U.S. economy being to some extent products of past M&A (Mueller, 1997). At the same time, academics have developed a series of theories and hypotheses to explain and predict the M&A phenomenon. These theories and hypotheses cover many issues related to M&A, from motives, attitudes, and approaches to the consequences of the transactions, from short-term to long-term performance, and from corporate governance to joint ventures and strategic alliances, which are alternatives to M&A deals. These ideas, derived from theoretical and/or empirical studies based on U.S. data, have been shown to be valid in explaining M&A deals in continental European markets (Tichy, 2001).

Compared to M&A deals in the U.S. and other developed countries, M&A deals in Asian emerging economies are different in two important ways. First, the U.S. has a well-developed legal system to protect the interests of shareholders and the welfare of consumers that differs from many emerging economies that suffer from a poor legal environment as well as weak enforcement of existing laws (La Porta et al., 1999). Second, cultural and governance differences between developing and developed markets lead to differences in the organizational structure of firms (Denis and McConnell, 2003; Kwok and Tadesse, 2006). Given these differences, it is necessary to re-examine the validity of the theories and hypotheses with specific reference to developing markets in Asia.

Some of the theories used to explain the M&A phenomena in developed economies may not be appropriate when trying to explain M&A activities in developing markets. For example, the “free cash flow” theory posits that managers of firms with unused borrowing power and large free cash flows are more likely to undertake low-benefit mergers. In developed economies, the “free cash flow” theory is often used to explain why diversification generates lower total gains (Jensen, 1986). However, preliminary evidence from diversification studies in developing markets indicates that diversification might generate higher total gains (Khanna and Palepu, 1997, 2000a, 2000b).

The relative lack of extensive study of M&A in developing markets may be due to two reasons. First, unlike in developed markets, there is a lack of comprehensive databases on M&A transactions in emerging markets. Second, there are relatively small economies of scale and scope in emerging markets. Thus, there is a relatively small number of M&A transactions in emerging markets. However, the process of global economic integration and the excellent economic performance of some Asian emerging economies over the last few decades have caught the attention of both investors and academicians (Wright et al., 2005).

In this study, we investigate abnormal returns to shareholders of bidder firms around the day of M&A announcement for ten emerging Asian markets: China, India, Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan, and Thailand. The analysis is based on a sample of 1,477 M&A deals in these ten emerging Asian markets over six years (2000-2005). Our findings show that the emerging Asian stock markets have positive reactions to announcement of M&A deals. On average, shareholders of bidding firms gain 0.96% in a two-day window (0, +1), 1.28% in a three-day window (-1, +1), and 1.7% in a five-day window (-2, +2). An abnormal return one day before the announcement day of M&A is 0.32%, which is statistically significantly different from zero at the 1% level. We also find that the cumulative abnormal returns in the financial industry M&A deals are lower than in non-financial industries, but these differences are not statistically significant at conventional levels.

The remainder of the paper is organized as follows: Section II addresses concepts and hypotheses. Section III discusses data and methodology. Section IV reports empirical results. Section V discusses conclusions and presents the implications for both investors and managers.

II. CONCEPTS AND HYPOTHESES

A. DEFINITION OF M&A

The terms "merger" and "acquisition" are often used interchangeably in many studies. According to Sherman and Hart (2006), the distinction (between merger and acquisition) may not actually matter, since the net result is often the same: two (or more) companies that previously had separate ownership operate as one firm after the M&A deal takes place, usually in order to attain some strategic or financial objective(s).

In theory, an M&A deal normally involves the controlling interest in the newly formed business being 50% of the voting shares plus one. Controlling interest in a corporation means that a stockholder (or a group of stockholders) has control of a large enough block of voting stock shares in a company such that no one stockholder or coalition of stockholders can successfully oppose a motion. In practice, a controlling interest can be far less than that, since it is rare that 100% of a company's voting shareholders participate in elections when shareholding is dispersed.

There is no available source of information or database to verify M&A transactions in terms of controlling interest for bidding firms. Therefore, following Moeller et al. (2004), we define an M&A transaction as a deal in which a combination of business entities takes place or in which an acquirer increases its holdings to more than 50% or to 100% of stock (or assets) from less than 50% of the holdings. Thus, transactions that meet one of following three definitions are selected. First, an M&A deal has taken place when all assets of a company, subsidiary, division, or branch are acquired. Second, the acquirer must have held less than 50% and be seeking to acquire 50% or more, but less than 100% of the target company's stock. Third, two or more business combine or 100% of the stock of a public or private company is acquired.

B. ABNORMAL RETURNS AND HYPOTHESES

The most reliable evidence on whether M&A creates value for shareholders draws on short-term event studies (e.g., Andrade et al., 2001; Hackbarth and Morellec, 2008). Most event studies examine abnormal returns around M&A announcement dates as an indicator of value creation or destruction. The short-term research shows different effects for bidders than for targets.

Regarding wealth effects of target firms, early studies agree unanimously that acquisitions create additional value. The survey of Jensen and Ruback (1983) summarizes the results of 13 empirical studies (samples vary from 1956 to 1981). The targets' shareholders get abnormal returns of 20-30% around the time of announcement. Jarrell and Poulsen (1989) provide evidence consistent with this anticipation hypothesis. Mulherin and Boone (2000) report the wealth effects for entire sample of 376 targets with available stock price data (events from 1990-1998). The median abnormal return in the (-1, +1) period is 18.4%. The significant and positive return for the sample targets is consistent with research from earlier time periods.

Bidders' shareholders break even upon the announcement of M&A, while targets' shareholders win. Mulherin and Boone (2000) find that bidders, on average, experience an insignificant mean change (slightly negative, -0.37%) in wealth at the announcement of the acquisition. The median is also small in absolute terms, although the estimate is significantly negative (-0.87%, $p < 0.01$). Their findings are consistent with findings of Tichy (2001), who surveyed about 80 empirical merger studies prior to 2001.

In recent studies, Moeller et al. (2005) analyze M&A deals from 1980 to 2001. They document that three-day cumulative abnormal return for acquiring-firm shareholders is slightly positive for every year except for 2 out of the 22 years analyzed. The abnormal return synergy gain (the combined value of the acquiring firm and of the acquired firm in percent returns) is slightly positive. Their study is consistent with most studies, which find that the combined abnormal returns are positive (e.g., Bradley et al. 1988; Servaes, 1991; Mulherin and Boone, 2000). The positive combined wealth effect for acquisitions is consistent with the synergistic theory. Therefore, only the event study evidence on bidder gains is mixed.

In our sample of 1,477 deals, only about one hundred target firms are publicly listed. Due to the limitation of sample size for the target firms, our study focuses on investigating bidder firm shareholders wealth.

Morck et al. (1990) find that for a sample of 326 U.S. acquisitions between 1975 and 1987, bidding firms has systematically lower and predominantly negative announcement period returns. Jensen and Ruback (1983) find that the bidder's stock has a 4% gain in tender offers and no gain in mergers. Bradley et al. (1988) report that the bidding firm shareholders receive less than a 1% gain. Jarrel et al. (1988) state that bidders realize small but statistically significant gains of about 1% to 2%. Analyzing a sample of 1086 takeovers from January 1, 1985 to June 30, 2002, Hackbarth and Morellec (2008) find that the mean value of 3-day CAR to bidder firm shareholders is -0.52%, which is slightly negative. A survey by Gaughan (2005) documents that wealth effects for bidder shareholders are either negative or neutral.

Given these conflicting findings on the bidding side, there is an ongoing debate regarding how to evaluate the wealth effects of M&A deals on bidding firms. Some critics contend that M&A deals are more likely long-term strategic investments by

companies and, as such, cannot be evaluated based on the market's reaction over a period of days. However, supporters of short-term effects research argue that the market's initial reaction is a good predictor of the actual long-term performance of a deal (McWilliams and Siegel, 1997). They argue that accounting-based measures of profit (normally used in long-term studies) may be subject to manipulation by insiders. Stock prices are supposed to reflect the true value of firms because they are assumed to reflect the discounted value of all future cash flows and incorporate all relevant information.

Finance theory indicates that the price of stock can be considered as present value of discounted future cash flows. Given that the expected higher economic growth of emerging Asian markets leads to higher future cash flows, we examine whether there are statistically significant positive abnormal returns for M&A in emerging Asian markets. The following hypothesis is developed:

H1: There is a positive abnormal return associated with an M&A announcement for bidder firms.

Developed countries have well-developed legal systems to protect shareholders' interests as well as the welfare of consumers, which differs from many emerging economies that suffer from a poor legal environment as well as weak enforcement of existing laws. Information leakages in developing markets may be reflected in stock market valuations before the M&A announcement date. Therefore, the effect of information leakages is also examined through analyzing CAR days before an M&A announcement. We hypothesize that:

H2: There is information leakage before an M&A announcement day.

Most existing studies exclude transactions in the financial services industry due to their special regulations and unique accounting data structure (Berger and Ofek, 1995; Hackbarth and Morellec, 2008; Lins and Servaes, 2002; Martin, 1996). Little research has been conducted to empirically assess whether there are any cumulative abnormal return differences between M&A deals in the non-financial industries and M&A deals in the financial industry. With these unique characteristics and constraints, firms in the financial industry bear risks that are on average far less than those of other industries. Investors may, therefore, expect that regulators will intervene to correct problems before, during, and after M&A deals occur in the financial industry. Consequently, the market reaction to M&A deals related to the banking industry should be less pronounced than for other firms. Thus, hypothesis three states:

H3: Valuation effects of M&A in the financial industry are lower than in non-financial industries.

III. DATA AND METHODOLOGY

A. DATA

Three datasets are used to calculate abnormal returns and to analyze value effects of bidding firms for M&A deals in this study. The datasets include descriptions and

records of M&A events, bidding firms' daily stock prices, and stock market indexes for ten emerging Asian markets: Indonesia, Thailand, Singapore, the Philippines, Malaysia, India, Taiwan, South Korea, Hong Kong, and China. The analyses are conducted using data over the 2000-2005 period.

The data of M&A events are drawn from the Mergers and Acquisitions Database in Thomson One Banker. Thomson One Banker provides integrated access, fully or partially, to several financial databases such as SDC Platinum, World Scope, and Data Stream. Thomson One Banker contains the complete version of SDC Platinum and VentureXpert Web. SDC Platinum Mergers and Acquisitions Database covers more transactions than any other source and is the industry standard used by investment banks, law firms, and media outlets around the world. According to Zimmerman (2006), there are two other leading M&A databases: (1) the Mergerstat database that covers both acquisitions and divestitures where at least one significant party is a U.S. company and (2) the ZEPHYR database that covers transactions both inside and outside the U.S. and is particularly useful to study M&A deals in Europe (from 1997 forward for European transactions; from 2000 forward for North American transactions; global coverage begins in 2003). Given the objectives of this study, the SDC Platinum (Thomson One Banker) database is the best source of information on Asian M&A deals.

Table 1
Distribution of M&A transactions by year and market

Market	2000	2001	2002	2003	2004	2005	Total	%
China	14	14	29	59	51	29	196	13.3%
Hong Kong	40	26	37	29	23	25	180	12.2%
India	19	18	20	24	20	33	134	9.1%
Indonesia	2	7	4	3	6	7	29	2.0%
Malaysia	30	57	49	84	81	53	354	24.0%
Philippines	6	4	2	5	10	9	36	2.4%
Singapore	31	33	33	40	50	45	232	15.7%
South Korea	16	48	26	23	18	22	153	10.4%
Taiwan	6	7	12	16	6	24	71	4.8%
Thailand	4	7	9	20	30	22	92	6.2%
Total	168	221	221	303	295	269	1,477	

We apply the following filters to a preliminary sample that begins on January 1, 2000 and ends on December 31, 2005: (1) The transaction is completed. (2) The acquirer and target are registered in the ten emerging Asian markets, and the target primary businesses or divisions were located in these markets at the time of transaction. (3) The consideration sought (method of payment) for the transaction is disclosed, to limit ourselves to larger M&A deals. (4) The percent of shares acquired in the deal is 50% or higher, to focus on significant M&A deals. (5) The acquirer is a public firm listed on one of the ten Asian emerging markets' stock markets. (6) The acquirer is active and has daily stock price data in DataStream. The daily stock price data should have the minimum number of observations before and after the event date, as well as the minimum number of observations before the event window for the estimation window. According to Campbell et al. (1997), the estimation window in an event study analysis could range from 120 days to 210 days. To avoid loss of transactions due to the lack of sufficient observations within the estimation window, we select an estimation window of 120 (−125, −6) trading days. As a result of these selection criteria, our event sample includes 1,447 M&A deals. Table 1 provides a description of the deals by year and by market.

B. METHODOLOGY

To examine market reactions to announcements of M&A deals, we use the standard event study methodology and compute market model abnormal returns (see Brown and Warner, 1985). The methodology is based on the assumption that, given rationality in the marketplace, the effect of an event will be reflected immediately in asset prices.

An event study begins by identifying the period (event window) involved in the event. Several papers address the issue of the appropriate window length that should be used to measure the price reaction correctly. Hillmer and Yu (1979) find that the event window should end within hours of the initial announcement. Chang and Chen (1989) find that event windows should go on for a number of days as the market keeps responding to news. Krivin et al. (2003) point out that event window length may be related to the period of observation.

In practice, the event window could be the event day, or the event day plus or minus some number of days, weeks, or months when the sample firms' returns are observed to assess whether anything unusual happened. For example, if one is looking at the information content of a merger or acquisition with daily data, the event will be the merger or acquisition announcement, and the event window will include the day of the announcement. The event window is often expanded to multiple days. One day after the announcement day is usually added to the event window because it will capture the market reaction if the announcement occurs after trading hours. One day prior to the announcement day can be added to the event window because it will capture the market reaction to possible information leakages before the official deal announcement. However, accuracy (predictive power) will be lower when more days are included in the event window due to the possibility of confounding effects from other market events (MacKinlay, 1997). To examine the sensitivity of the empirical results to different event window lengths, we report daily abnormal returns from day -2 to day +2 and cumulative abnormal returns on windows (0, +1), (-1, +1), and (-2, +2).

The normal return is defined as the return that would be expected if the event did not take place. There are three common approaches to modeling the normal return: the single-index model (constant mean return model), the market model, and the CAPM model. The constant mean return model assumes that the mean return of a given security is constant through time. The market model assumes a stable linear relation between the market return and the security return. The CAPM model assumes that the expected return of a given asset is a linear function of its covariance with the return of the market portfolio.

The restriction of the CAPM model is that it requires the risk-free return (i.e., the rate of a government issued bond or bill) to estimate the normal return. Due to the underdeveloped government-issued securities markets, most Asian economies do not have benchmark risk-free interest rates before the 1997 Asian Financial Crisis (Rhee, 2000). With the exception of Hong Kong and India, many other Asian economies began to concentrate on the establishment and the improvement of their primary and secondary bond markets after the 1997 Financial Crisis. Therefore, the use of the CAPM model complicates the implementation of an event study. This limitation can be addressed by using the market model, which is also an improvement over the constant mean return model (Campbell et al., 1997). Thus, we select the market model rather than the CAPM or constant mean models to estimate the normal return.

The market model assumes the following linear relationship between the return of any security and the return of the market portfolio:

$$R_{it} = \alpha_i + \beta_i R_{mt} + e_{it} \tag{1}$$

where t is the time index, i = 1, 2, ..., N stands for security, R_{it} and R_{mt} are the returns on security i and the market portfolio, respectively, during period t. The return in the market portfolio is measured by the variation in some benchmarks, such as the Hang Seng Index for the Hong Kong stock market, and e_{it} is the error term for security i.

Equation (1) is estimated over a period that runs between 125 days prior to the event up to 6 days prior to the event. The event window can be defined as a two-day window, a three-day window, or a five-day window. With the estimates of α_i and β_i from equation (1), a "normal" return is predicted during the days covered by the event window. The prediction error (the difference between the actual return and the predicted normal return), commonly referred to as the abnormal return (AR), is then calculated from following equation:

$$AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt} \tag{2}$$

where AR_{it} is the abnormal return for firm i on day t, R_{it} is the actual return for firm i on day t.

Average aggregate abnormal return (AAR) on day t is mean value of summed abnormal returns of sample firms (N = 1447):

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{it} \tag{3}$$

Our study reports daily AAR from two days before announcement day to two days after announcement day. The AAR is calculated from equation (3). We conduct robust t-statistic test and Wilcoxon z-statistic test for the significance of AAR.

The daily abnormal returns are summed over the event window to derive the cumulative abnormal returns (CARs):

$$CAR_{i(T_1-T_2)} = \sum_{t=T_1}^{T_2} AR_{it} \tag{4}$$

where CAR_i is the cumulative abnormal return for firm i over the event window (T_2, T_1). An average aggregate cumulative abnormal return (ACAR) is defined as:

$$ACAR(T_1, T_2) = \frac{1}{N}\sum_{i=1}^{N} CAR_i(T_1, T_2) \tag{5}$$

We report ACAR for three different windows: (0, +1), (-1, +1), and (-2, +2). We also conduct robust t-statistic test and Wilcoxon z-statistic test for the significance of ACAR.

IV. EMPIRICAL RESULTS

Table 2 reports average aggregate daily abnormal returns two days before and two days after the announcement day. Stock markets have positive reactions to the announcement of M&A deals. Significant positive abnormal returns exist before the announcement day. Abnormal return (0.32%) on day -1 is higher than abnormal return (0.15%) on day -2. The abnormal return increases from day -2 to day 0 and reaches the highest abnormal return (0.43%) on the announcement day. After the event day, abnormal returns continually increase to 0.53% on day +1 and decrease to 0.27% on day +2. The Wilcoxon signed-rank test is statistically significant only on the announcement day and on day +2. The positive mean CARs of three event windows, (0, +1), (-1, +1), and (-2, +2), are all statistically significant at the 1% level. Consistent with the t-test for the CARs of three windows, the median abnormal returns, tested by Wilcoxon z-statistic, are also statistically significant. Therefore, H1 (that there is a positive abnormal return associated with M&A announcements for bidder firms) and H2 (that there is information leakage before M&A announcement day) are supported.

Table 3 reports two-day (0, +1) CARs by year and by market. China has a positive CAR on M&A deals from 2000 to 2005 except 2004. Hong Kong has a negative two-day CAR on M&A deals in 2000. India has a negative two-day CAR on M&A deals in 2005. Malaysia and Indonesia have positive two-day CAR on M&A deals over all six years. Indonesia has the highest two-day CAR on M&A deals in 2003 (19.32%). The Philippines has a negative two-day CAR on M&A deals in years 2000, 2002, 2004, and 2005. However, the average six-year two-day CAR is positive because of the exceptionally high CAR on M&A deals in 2001 (10.65%). Singapore, South Korea, Taiwan, and Thailand have two negative two-day CAR in different years. All of the six year average two-day CAR on M&A deals are positive in the ten markets. In summary, 15 out of 60 (= ten markets times six years) market-year CAR are negative.

Table 2
Daily abnormal returns and CARs for selected windows in response to M&A

The announcement day (day 0) is the day of the first announcement of an M&A. Abnormal stock returns are estimated using the standard market model method. The Wilcoxon signed-rank test is used for examining the median significance.

Event Day	Average Abnormal Return (%)	*t*-Statistic	Wilcoxon *z*-statistic
-2	0.15	1.93**	0.41
-1	0.32	3.41***	1.34
0	0.43	2.72***	1.73*
1	0.53	3.11***	1.09
2	0.27	1.74*	-1.93**
Event Window	**Mean CAR (%)**	***t*-Statistic**	**Wilcoxon *z*-statistic**
(0, 1)	0.96	4.50***	3.37***
(-1, +1)	1.28	5.52***	5.24***
(-2, +2)	1.70	5.70***	5.24***

The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 3
Distribution of two-day CAR (0, +1) by year and market

Market	2000	2001	2002	2003	2004	2005	Total
China	1.59	0.26	1.01	0.20	-0.10	1.34	0.51
Hong Kong	-1.12	3.73	0.27	2.38	5.36	2.20	1.72
India	1.91	1.46	1.47	2.93	1.33	-0.23	1.35
Indonesia	3.96	0.95	3.08	19.32	0.79	0.53	3.21
Malaysia	0.18	0.02	1.75	0.06	0.55	0.86	0.53
Philippines	-0.13	10.65	-1.13	0.91	-0.86	-0.49	0.86
Singapore	1.75	-0.80	1.43	1.99	-0.99	2.51	0.94
South Korea	-0.44	0.64	1.06	-0.37	1.83	2.21	0.81
Taiwan	-0.88	1.37	-1.32	0.82	3.42	0.48	0.47
Thailand	-0.95	1.37	-1.81	2.94	2.14	1.12	1.49
Total	0.38	0.91	0.93	1.19	0.86	1.22	0.96

Table 4 presents a three-day (-1, +1) CAR for the ten emerging Asian markets over six years. For M&A deals in China, the three-day CAR in 2004 becomes positive from the negative two-day CAR. Compared to the two-day CAR, signs of the three-day CAR for M&A deals in Hong Kong, India, Indonesia, Malaysia, the Philippines, Singapore, Taiwan, and Thailand are the same. For M&A deals in South Korea, the three-day CAR in 2001 becomes negative, and three-day CAR in 2003 becomes positive. Fourteen of the 60 market-year CARs are negative.

Table 4
Distribution of three-day CAR (-1, +1) by year and market

Market	2000	2001	2002	2003	2004	2005	Total
China	2.26	1.34	0.77	0.46	0.45	1.35	0.83
Hong Kong	-0.88	2.70	1.19	2.01	4.66	2.71	1.73
India	2.20	3.85	3.05	3.35	2.48	-0.26	2.19
Indonesia	5.01	6.62	4.11	22.56	1.19	0.53	5.22
Malaysia	0.36	0.48	1.49	0.69	0.82	0.90	0.80
Philippines	-0.87	10.74	-9.45	0.27	-0.99	-0.66	0.12
Singapore	1.73	-1.95	3.08	3.27	-0.42	3.55	1.55
South Korea	-0.83	-0.15	0.51	1.59	1.82	2.98	0.83
Taiwan	-4.40	1.95	-0.78	0.77	2.87	0.74	0.36
Thailand	-0.22	1.98	-0.53	3.32	2.19	1.58	1.90
Total	0.40	1.04	1.35	1.78	1.15	1.57	1.28

Analysis of daily CARs between the financial industry and non-financial industries indicates that the difference is significant at the 5% level only on the announcement day (see Table 5). The mean value of CAR in the financial industry M&A deals is 0.62 percentage points lower than in non-financial industries' M&A deals. Daily mean values of CAR on day -1 and day 1 in the financial industry M&A deals are even higher than in non-financial industries' M&A deals. Through analyses of two event windows, a two-day (0, +1) and a three-day (-1, +1), we find that CARs in the financial industry M&A deals are lower than in non-financial industries. However, the differences are not significant at conventional levels. Thus, H3 (that valuation effects of M&A in the financial industry are less than in non-financial industries) is not supported.

Table 5
Difference between financial industry and non-financial industries

Event Day	Financial Industry CAR	Non-Financial Industries CAR	Difference	*t*-Statistic
-2	0.04	0.18	-0.14	-0.74
-1	0.35	0.32	0.03	0.12
0	-0.04	0.58	-0.62	-2.33**
1	0.88	0.42	0.46	0.98
2	0.17	0.30	-0.13	-0.43
Event Window	**Financial Industry CAR**	**Non-Financial Industries CAR**	**Difference**	***t*-Statistic**
(0, 1)	0.84	1.01	-0.16	-0.30
(-1, +1)	1.19	1.31	-0.12	-0.23

The symbol ** denotes statistical significance at the 5% level.

V. DISCUSSIONS AND IMPLICATIONS

In this study, we investigate abnormal returns to shareholders of bidder firms around the day of M&A announcement for ten emerging Asian markets: China, India, Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan, and Thailand. Using a sample of 1,477 M&A deals in the ten emerging Asian markets over six years from 2000 to 2005, we find that the stock markets have expected positive cumulative abnormal returns in three different event windows: a two-day (0, 1) window, a three-day (-1, +1) window, and a five-day (-2, +2) window. Furthermore, our results from analyses of market-year CAR confirm the above mentioned finding, although several markets in several years create negative abnormal returns. Valuation effects of information leakage about M&A deals are statistically significant. We also find that CAR of the two different windows in the financial industry M&A deals are lower than in non-financial industries, but these differences are not statistically significant at conventional levels.

Compared with the studies of developed markets, our findings are not in line with conclusions of most U.S. studies, which indicate that the shareholder wealth effects for bidders were either negative or neutral (e.g., Gaughan, 2005; Hackbarth & Morellec, 2008). Neither are the findings in line with conclusions of most studies in European countries. First, regarding M&A deals in UK, by examining 434 mergers in UK over the period 1969-75, Firth (1980) reports that share price of the successful attackers experienced a drop after the merger. Analyzing a sample of 70 publicly quoted and actively traded companies of UK over 1974 to 1976, Dodds and Quek (1985) find insignificant negative residuals in month 0. Investigating wealth effects of UK

companies involved in acquisitions during the period 1977 to 1986, Limmack (1991) finds an insignificant -0.2% announcement period returns for completed bid. Analyzing 429 UK bidders over the period 1980 to 1990, Sudarsanam et al. (1996) find significant negative CARs of -4.04% around the bid announcement data. Second, regarding M&A deals in European Union, Campa and Hernando (2004) examine M&A deals in European Union over the period 1998-2000 and find acquirers' cumulative abnormal returns to be null on average. Finally, regarding M&A deals in developed country groups, Mueller and Yurtoglu (2007) examine the effects of mergers on the returns to bidder firm shareholders from three country groups - the United States, Anglo-Saxon countries (Australia, Canada, Ireland, New Zealand, and the United Kingdom), and non-Anglo-Saxon European countries over 1980s and 1990s. Within a 21-day window (-10, +10), USA firms have insignificant negative CAR (-0.064%), non-US Anglo-Saxon countries have CAR -0.063%, and Europe countries have a positive CAR of 0.05%.

In general, the results of Anglo-American M&A studies are valid for continental European M&A but not valid for Asian M&A deals in our study. The institutional environment in Asian countries is different from that in the U.S., and various researches have suggested that agency problems may be less severe in those countries (e.g., Claessens et al., 2000), partly because they have a more concentrated corporate ownership structure (i.e., wealth controlled by a few family groups or by central government). Thus, our findings indicate that the agency theory is not suitable to explain M&A activities in Asian emerging markets.

For investors of Asian emerging markets, the announcements of M&A deals are "good news". Significant daily abnormal returns before the announcement day indicate that insiders reap benefits via information leakage. However, outsiders gain from the M&A deals as well. Investors can reap the financial benefits associated with M&A deals and have high expectations on growths of bidding firms through M&A activities. Our results on the M&A deals in Asian emerging markets have important policy implications as well. First, as investors reap the financial benefits associated with M&A deals, external growth through M&A activity may be highly recommended for managers as they can explain how acquisitions positively serve the interests of their firms. "With the acquisition of established companies, acquirers effectively circumvent much of the challenge and uncertainty surrounding the internal growth process in the fast-growing economy" (King et al., 2004). Second, liquidity is significantly affected by the size and depth of the market in which an investment is customarily traded. In developing markets, target firms, specifically private firms and subsidiaries, cannot be easily liquidated at a reasonable price. Managers of bidding firms should learn how to deal with (and take advantage of) the liquidity effects and benefit from the M&A transactions.

REFERENCES

Andrade, G., M. Mitchell, and E. Stafford, 2001, "New Evidence and Perspectives on Mergers," *The Journal of Economic Perspectives*, 15(2), 103-120.

Berger, P.G., and E. Ofek, 1995, "Diversification's Effect on Firm Value," *Journal of Financial Economics*, 37(1), 39-65.

Bradley, M., A. Desai, and E.H. Kim, 1988, "Synergistic Gains from Corporate Acquisitions and Their Division between the Stockholders of Target and Acquiring Firms," *Journal of Financial Economics*, 21(1), 3-40.

Brown, S.J., and J.B. Warner, 1985, "Using Daily Stock Returns: the Case of Event Studies," *Journal of Financial Economics*, 14(1), 3-31.

Campa, M.J., and I. Hernando, 2004, "Shareholder Value Creation in European M&As," *European Financial Management*, 10(1), 47-81.

Campbell, J., W.L. Andrew, and A.C. MacKinlay, 1997, "*The Econometrics of Financial Markets*" NJ: *Princeton University Press*.

Chang, S. J. and S.N. Chen, 1989, "Stock-price Adjustment to Earnings and Dividend Surprises" *Quarterly Review of Economics and Business*, 29(1), 68.

Claessens, S., S. Djankov, and H.P. Lang, 2000, "The Separation of Ownership and Control in East Asian Corporations," *Journal of Financial Economics*, 58(1-2), 81-112.

Denis, D.K., and J.J. McConnell, 2003, *International Corporate Governance* (pp. 1-56): European Corporate Governance Institute.

Dodds, J.C., and J.P. Quek, 1985, "Effects of Mergers on the Share Price Movement of the Acquiring Firms: a UK Study," *Journal of Business Finance Accounting*, 12(2), 285-296.

Firth, M., 1980, "Takeovers, Shareholder Returns, and the Theory of the Firm," *The Quarterly Journal of Economics*, 94(2), 235-260.

Gaughan, P.A., 2005, *Mergers: What Can Go Wrong and How to Prevent It*. John Wiley & Sons, Hoboken, NJ.

Hackbarth, D., and E. Morellec, 2008, "Stock Returns in Mergers and Acquisitions," *The Journal of Finance*, 63(3), 1213-1252.

Hillmer, S.C., and P.L. Yu, 1979, "The Market Speed of Adjustment to New Information," *Journal of Financial Economics*, 7(4), 321-345.

Jarrel, G., J. A. Brickley, and J.M. Netter, 1988, "The Market for Corporate Control: the Empirical Evidence since 1980," *Journal of Economic Perspectives*, 2(1), 49-68.

Jarrel, G., and A. Poulsen, 1989, "Stock Trading before the Announcement of Tender Offers: Insider Trading or Market Anticipation," *Journal of Law, Economics & organization*, 5(2), 225-248.

Jensen, M.C., 1986, "Agency Cost of Free Cash Flow, Corporate Finance, and Takeovers," *American Economic Review*, 76(2), 323-329.

Jensen, M.C., and R. S. Ruback, 1983, "The Market for Corporate Control: the Scientific Evidence," *Journal of Financial Economics*, 11(1-4), 5-50.

Khanna, T., and K. Palepu, 1997, "Why Focused Strategies may be Wrong for Emerging Markets," *Harvard Business Review*, 75(4), 41-51.

Khanna, T., and K. Palepu, 2000a, "The Future of Business Groups in Emerging Markets: Long-run Evidence from Chile," *The Academy of Management Journal*, 43(3), 268-285.

Khanna, T., and K. Palepu, 2000b, "Is Group Affiliation Profitable in Emerging Markets? An Analysis of Diversified Indian Business Groups," *The Journal of Finance*, 55(2), 867-891.

King, D.R., D.R. Dalton, C.M. Daily, and J.G. Covin, 2004, "Meta-analyses of Post-Acquisition Performance: Indications of Unidentified Moderators," *Strategic Management Journal*, 25(2), 187-200.

Krivin, D., R. Patton, E. Rose, and D. Tabak, 2003, "Determination of the Appropriate Event Window Length in Individual Stock Event Studies," Available at SSRN: *http://ssrn.com/abstract=466161*.

Kwok, C.C., and S. Tadesse, 2006, "National Culture and Financial Systems," *Journal of International Business Studies*, 37(2), 227-247.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny, 1999, "Corporate Ownership around the World," *Journal of Finance*, 54(2), 471-517.

Limmack, R.J., 1991, "Corporate Mergers and Shareholders Wealth Effects: 1977-86," *Accounting and Business Research*, 21(83), 239-251.

Lins, K.V., and H. Servaes, 2002, "Is Corporate Diversification Beneficial in Emerging Markets?" *Financial Management*, 31(2), 5-31.

MacKinlay, A.C., 1997, "Event Studies in Economics and Finance," *Journal of Economic Literature*, 35(1), 13-39.

Martin, K.J., 1996, "The Method of Payment in Corporate Acquisitions, Investment Opportunities, and Management Ownership," *The Journal of Finance*, 51(4), 1227-1246.

McWilliams, A., and D. Siegel, 1997, "Event Studies in Management Research: Theoretical and Empirical Issues," *The Academy of Management Journal*, 40(3), 626-657.

Moeller, S., F. Schlingemann, and R. Stultz, 2004, "Firm Size and the Gains from Acquisitions," *Journal of Financial Economics*, 73(2), 201-228.

Moeller, S., F. Schlingemann, and R. Stultz, 2005, "Wealth Destruction on a Massive Scale? A Study of Acquiring-firm Returns in the Recent Merger Wave," *The Journal of Finance*, 60(2), 757-782

Morck, R., A. Shleifer, and R. Vishny, 1990, "Do Managerial Objectives Drive Bad Acquisitions?" *The Journal of Finance*, 45(1), 31-48.

Mueller, D.C., 1997, "Merger Policy in the United States: A Reconsideration," *Review of Industrial Organization*, 12(5-6), 655-685.

Mueller, D.C., and B. B. Yurtoglu, 2007, "Corporate Governance and the Returns to Acquiring Firms' shareholders: an International Comparison," *Managerial and Decision Economics*, 28(8), 879-896.

Mulherin, J.H., and A. L. Boone, 2000, "Comparing Acquisitions and Divestitures," *Journal of Corporate Finance*, 6(2), 117-139.

Rhee, G., 2000, "Regionalized Bond Markets: Are the Region's Markets Ready?" *Workshop on Asian Development Forum on Strengthening Regional Financial Architecture*. Singapore.

Servaes, H., 1991, "Tobin's Q and the Gains from Takeovers," *The Journal of Finance*, 46(1), 409-419.

Sherman, A. J. and M. A. Hart, 2006, *Mergers and Acquisitions from A to Z* (2nd ed.). New York: AMACOM.

Sudarsanam, S., P. Holl, and A. Salami, 1996, "Shareholder Wealth Gains in Mergers: Effect of Synergy and Ownership Structure," *Journal of Business Finance and Accounting*, 23(5), 673-698.

Tichy, G., 2001, "What do We Know about Success and Failure of Mergers?" *Journal of Industry, Competition and Trade*, 1(4), 347-394.

Wright, M., I. Filatotchev, R.E. Hoskisson, and M.W. Peng, 2005, "Strategy Research in Emerging Economies: Challenging the Conventional Wisdom," *Journal of Management Studies*, 42(1), 1-33.

Zimmerman, A., 2006, "Mergers and Acquisitions." Available at *Zimmerman's Research Guide:http://www.lexisnexis.com/infopro/zimmerman/disp.aspx?z=1687*.