

MARKET EVALUATIONS AND STRATEGIC FACTORS: A COMPARISON FROM ASIAN BANKS' M&A AND ALLIANCES

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Abstract

This paper covers Asian stock exchanges to empirically examine market responses to alliances, M&A announcements, and changes in management strategy made by listed banks. Based on Altunbas and Marques (2008) study, this study examines the relevant strategic management factors using regressions with the SCAR as its dependent variable and six strategic factors as independent variables.

The cross-sectional results suggest that a cross-border diversification strategy anticipates value creation and that investors are not interested in industry diversification. Investors evaluate banks having low loan ratios with a view to later increasing the loan book by acquiring business loans through a mutually complementary alliance or M&A. Investors value banks with low loan ratios as ways to purchase larger loans for business through mutually complementary alliances between acquirers and targets. The M&A tools deployed by Asian banks' appear to be relief methods for unsound banks.

The cross-border effect is dependent on the differences among countries' credit ratings, degree of economic freedom, and the nature of their legal and regulatory financial systems.

EFM classification codes: 520,210

Key word: bank, M&A, Asian markets, cross-border, diversification

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INTRODUCTION

Since the 1990s, most large Asian and European financial institutions, including insurance companies and banks, have aggressively promoted alliances and M&A within Asian financial markets. The business strategies of such institutions have changed in response not only to M&A but also business and financial alliances.

This paper, representing research that began in 2000, empirically examines the effects of the Asian stock market's response to and management strategies for banks' alliance and M&A announcements, using an event study and multiple regression analysis. We examine the strategic management factor as performed in Altunbas and Marques (2008), using a step-wise regression method for which the dependent variable is the Standardized Cumulative Abnormal Return (SCAR) and the independent variables include six strategic factors. Furthermore, we explain the cross-border effect by testing whether cross-border country characteristics are related to bank returns.

Through traditional short-term event study methods, we make three important discoveries about Asian banks. First, the target's SCAR is larger than the acquirer's in both alliances and M&A. Second, the cross-border targets' SCAR in both alliances and M&A is dominated by diversification, unlike for domestic SCAR. Third, for alliances, cross-border targets' SCAR is 1.5 times larger than the M&A's, while domestic M&A targets' SCAR is 3 times larger than alliances'. Fourth, there is little difference in diversifications between alliances and M&A.

The cross-sectional alliance results suggest that cross-border diversification strategies usually target value creation. Investors value banks with low loan ratios as ways to purchase larger loans for business through mutually complementary alliances between acquirers and targets, but simultaneously efficient running acquisition banks with lower total costs but high IT literacy acquire inefficient targets with high costs. Finally, investors are not interested in industrial diversification strategies, a significant difference from Europe and the U.S., with their conglomerates and bank-insurance mergers ("bancassurance"). The M&A results suggest that domestic strategies usually target value creation. Compared with their Australian counterparts, Asian investors expect significantly more value creation, especially in countries that have received emergency IMF assistance. Asian banks' M&A tools appear to be relief methods for unsound banks.

We can explain the cross-border effect through national characteristics: it is strongly related to national credit ratings. Investors welcome IMF relief programs and expect weak target economies to strengthen. The effect is also strongly related to the degree of a country's economic freedom and has relationships with cross-sectional coefficient values and Asia's legal and market systems.

We find that the loosen regulatory bank action restrictions raise the bank returns, more stringent barriers to foreign-bank entry rise the bank return and larger private monitoring of banks have better performing banks. In case of alliance acquirer, in the sting circumstance of barriers to foreign-bank

entry, loosen bank action restrictions and large private monitoring promote better banking sector outcomes though cross-border transactions.

The structure of this paper is as follows. Section 1 discusses the research motivation and section 2 the relevant literature. Section 3 outlines three key discussion issues concerning alliances and M&A. Section 4 describes the study's data and empirical methods. Section 5 presents Asian banks' data description. Section 6 provides the study's empirical results, and section 7 concludes the paper.

1. LITERATURE

Many studies on changing business strategies focus on M&A. Recent studies on changing business strategies and the difference between M&A and alliances have been conducted by Makimoto (2007) and Chiou and White (2005). Makimoto (2007), using a covariance structure analysis on 1,714 Japanese listed business companies, defines the difference between M&A and alliances as follows: while the purpose of M&A is improved financial statements, the purpose of alliances is improved research and development (R&D). Chiou and White (2005) examine the wealth effects of Japanese financial institutions' strategic alliances (i.e., single-business, multi-business, comprehensive, domestic/foreign, intra-keiretsu, and inter-industry) occurring between 1997 and 1999. They find that, first, strategic alliances increase the value of partner firms, second, the smaller partner experiences a larger percentage of gain, and, third, inter-group alliances result in increased market value. These two studies differ from this one in that they do not empirically study bank and insurance companies, focusing instead on business companies and financial institutions; in addition, they use 1990 as their empirical term, the year Japan suffered its first financial crisis.

We now present below a survey of studies on market evaluation.

Many studies have been conducted on financial conglomerates. Laeven and Levine(2007) find the diversification discount in financial conglomerate. Many focus on bank-insurance mergers, called "bancassurance." Artikis et al. (2008) offer an intuitive explanation for the market dynamics of and incentives for bancassurance: bank-insurance collaboration, they argue, gives banking firms the opportunity to utilize their network of branches. Moreover, banks seek to enhance profitability by expanding their business and selling new products through so-called "one-stop shopping." For insurance companies, bank-insurance collaborations offer new distribution networks (bank branches) and new distribution methods (bank personnel and hybrid product specialists). Insurers benefit from their alliances with banks, especially when banks have strong brand names that facilitate the development and distribution of tailor-made products. For consumers, bank-insurance collaborations should lead to lower premiums, while competition leads to superior documents and increased services. Malkonen (2009), theorizing on the competitive and regulatory implications of financial

conglomerations from an industrial organization perspective, suggests that bank-insurance collaborations increase the scope of economic information about clients available through monitoring, intensifying competition in the financial market. Such competition imposes downward pressure on prices and improves financial stability. In addition, increased monitoring allows lower capital requirements for financial conglomerates.

A wide variety of empirical studies have examined the firm value of financial conglomerates and bancassurance. These can be classified into three main groups: first, studies on creating firm value (Field et al. [2007] and Staikouras [2009]); second, studies on destroying firm value (Laeven and Levine [2007], Schmid and Walter [2009], Lelyveld and Knot [2009]); third, studies on neutral firm value (Allen and Jagtiani [2000]).

Of the studies on creating firm value, Field et al. (2007) examine the effects of M&A events on U.S. and European bank-insurance from January 1997 to December 2002, using the event study method. They find positive bidder wealth effects that are significantly related to economies of scale. Staikouras (2009) expands the results of Field et al. (2007) by applying it to the global market. He uses the event study method to examine international M&A events for 51 countries from 1990 to 2006; his findings reveal significant abnormal returns. While bank-bidders appear to earn a significant positive return after an event's announcement, insurance-bidders earn a significant negative return. Staikouras (2009) suggests that banks may have much lower selling costs than insurers. A cross-section regression shows that the Abnormal Return (AR) exhibits a positive relationship with profitability (ROE) and size (relative size) but a negative relationship with diversification (non-interest income/total operating income).

Contrariwise, many studies examine the destruction of firm value. Laeven and Levine (2007), confined to the banking industry, examine 836 banks from 43 countries and study their diversification discounts using a regression of Tobin's q . The study concludes that all diversification of bank-based financial service firms is fundamentally value-destroying. Schmid and Walter (2009) advance the work of Laeven and Levine (2007) by considering diversification across the entire range of financial institutions—commercial banking, investment banking, insurance, and asset management, among other sectors—and analyzing 4,060 U.S. events between 1985 and 2004 from a diversification perspective. They employ three kinds of diversification measure: the first is a dummy variable, equal to 1 if a firm reports more than one segment; the second is the number of segments, and the third is the sales- and assets-based Herfindahl-Hirschman Index (HHI). Schmid and Walter's (2009) empirical results show that diversified firms trade at a discount of either approximately 9% or 16%. Though significant conglomerate discounts exist in the three main activity areas (credit intermediation, securities, and insurance), two notable exceptions in which positive excess value accrues occur for collaborations between commercial banks and insurance companies and between commercial and

investment banks. Furthermore, the results of a sub-sample analysis based on the insurance companies' main activity areas show that an excess value effect has a negative relationship with its leverage. The authors suggest that this could be related to the role of insurance reserves in determining a firm's ability to book a profitable underwriting business with relatively low-loss probability. They find that profitability, like ROA, seems to affect the firm value of only insurance companies, not that of intermediaries or securities firms.

Lelyveld and Knot (2009) analyze firm value (including 29 large global conglomerates active between 1990 and 2005) by focusing on the valuation of bank-insurance conglomerates. They strongly indicate that larger conglomerates have more opportunities for inefficient cross-subsidization and therefore face larger discounts. Furthermore, they find that discounts are reduced as conglomerates become less opaque and prove their value over time, even if this process can be somewhat ambiguous. Lelyveld and Knot (2009) also find that increased risk affects excess value, pointing out that, as risks decrease through diversification within conglomerates, banks with high-risk potential merge with low-risk insurance companies to become lower-risk financial conglomerates,² and their value shifts from equity-holders to debt-holders.

Two kinds of empirical studies have analyzed insurance companies' M&A and changing alliances. The first is a comprehensive analysis of M&A; the second focuses on financial conglomerates, especially bank-insurance conglomerates.

Akhigbe and Madura (2001) use the former method to examine the U.S. market while Cummins and Weiss (2004) examine the European market. Akhigbe and Madura (2001) use the event study method to analyze the M&A events of 68 large U.S. insurance companies. They find that positive and significant effects, including intra-industry effects, occur in response to insurance companies' M&A announcements; furthermore, intra-industry effects are conditioned by company type, size, and location. Cummins and Weiss (2004) also use the event study method to analyze the M&A events of 2,595 European insurance companies. They find that, although M&A create small negative SCAR, targets experienced positive and significant effects. The value created by within-border transactions tends to be higher than that of cross-border transactions.

Now, we consider Asia's bad loan problems. Studies on Japanese financial institutions have examined their changing business strategies by targeting only the banking sector, which has suffered because of nonperforming loans for a long time (Yamori et al. [2003], Sakai et al. [2009]). Most studies are nothing more than defensive M&A analyses of defensive nonperforming loans problems, business restructuring, and efficiency. In this study, we comprehensively consider the aggressive

² Comparing the stock volatility of banks with that of insurers between 1995 and 2005 shows that banks appear to have higher levels of volatility than insurers, as most EU insurers have significantly limited their exposure to market risks since 2002.

business strategies of financial institutions, especially those of large insurance companies, and analyze not only M&A but also aggressive strategic alliances.

Rossi and Volpin (2004), Moeller and Schlingmann (2005) empirically show that differences in nationality, legal and market systems, regulatory systems, and bidder/target maturity vary according to firm value. By contrast, we comprehensively examine financial institutions' aggressive business strategies, analyzing not only M&A but also aggressive strategic alliances in Asia. My study thus expands the scope of the previous research. Stingner and Sutton(2011) shows the greater culture distance has a positive influence on the long term performance. Barth et al.(2001,2004,2008) empirically show the difference between broad array of bank regulations and supervisory practice and bank development, performance and stability.

3. DISCUSSION ISSUES

This paper presents three main discussion issues pertaining to the Asian stock market's response to and management strategies for alliance and M&A announcements. We define "alliance" as cases involving less than 50% cumulative share/asset holdings and "M&A" as cases involving more than 50% cumulative share holdings.

[Discussion]

Discussion 1: How does the Asian stock market respond when alliances or M&A by listed banks are announced? We empirically investigate this question using the event study method and determine the differences between the Abnormal Return effects.

Discussion 2: For both alliance and M&A involving both acquirers and targets, using cross-sectional regressions, we derive the strategic factors from SCAR data acquired through event studies. We examine the six strategic management factors introduced by Altunbas and Marques (2008): earning diversification strategy, risk strategy, cost controlling strategy, capital adequacy level strategy, liquidity risk strategy, and technology and innovation strategy.

Discussion 3: We comprehensively study the differences among Asia's financial, economic and regulatory systems. One of this paper's goals is to assess whether a cross-border effect exists; the available evidence on cross-sectional differences according to country characteristics could help us understand some of the economic factors in the cross-border effect.

4. DATA AND METHODOLOGY

4.1 Data

Data on alliance and M&A announcements were drawn from Thomson ONE Investment Banking and cover the period between 2000 and 2011. We collect all the transactions of Asian listed banks that have at least acquired or targeted either the equity or assets of domestic or foreign firms. We require at least one of the firms to be a bank, while the target could be a company in another industry. The investigation uses Asian data from all the Asia-Pacific countries: Australia, Bangladesh, Bhutan, Brunei, Cambodia, China, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Hong Kong, India, Indonesia, Kiribati, Laos, Macau, Malaysia, Maldives, Marshall Islands, Mongolia, Myanmar, N. Mariana Islands, Nauru, Nepal, New Caledonia, New Zealand, Norfolk Islands, North Korea, Pakistan, Palau, Papua New Guinea, Philippines, Singapore, Solomon Islands, Samoa (US), South Korea, Sri Lanka, Taiwan, Timor-Leste, Thailand, Tokelau, Tonga, Tuvalu, Vanuatu, Vietnam, Wallis/Futuna Island, and Western Samoa. All sample transactions have a dollar value and announcement and completion data.

All daily equity return data are from the Thomson One Stock Priced Daily Data. Accounting data are from Thomson One Investment Banking. The data necessary to calculate the geographical and industrial diversification measures come from the Standard Industrial Classifications (SIC) codes and its geographic segment.

The sample comprises 1907 bank and 640 insurance company transactions. Either the acquirer or target have a regular common stock listing on Asian stock markets and have accounting data based on dollar values.

Daily market index data, consisting of every company's listed geographic stock market index, are obtained from the Datastream, composed of the TOPIX Index, HANG SENG Index, SHANGHAI SE COMPOSITE Index, TAIWAN SE WEIGHTED Index, KOSPI Index, ASX Index, S&P/ASX 200 Index, EX NZX 50 Index, KARACHI SE 100 Index, COLOMBO SE MILANKA Index, BANGKOK S.E.T. 50 Index, IDX COMPOSITE Index, STRAITS TIMES Index, FTSE BURSA MALAYSIA KLCI Index, PHILIPPINE SE ALL SHARES Index, HO CHI MIN VSE Index, SENSEX 30 Index, S&P CNX DEFTY (50) Index, and BANGLADESH SE ALL SHARE Index. The historical movements of the Asian market indexes are shown in graph 1. Some of the indexes of emerging countries such as Bangladesh, Pakistan, and India move up and down widely and quickly and are set at high levels, while the Japanese index is set at the lowest and has low volatility.

(Insert Graph 1 here)

The daily risk-free rates data, consisting of every company's geographic government bond 10-year

or 5-year rates, are obtained from the Datastream, composed of JP10YT, HK10YT, CN10YT, TW10YT, KR10YT, AU10YT, NZ10YT, PK10YT, LK5YT, TH10YT, ID10YT, SG10YT, MY10YT, PH10YT, VN10YT, IN10YT, and US10YT. The historical movements of Asian countries' risk-free rates are shown in graph 2. Some of the risk-free rates of emerging countries such as Indonesia, Vietnam, and India, which began in 2006 or 2007, move up or down quickly, while the Japanese and Taiwanese risk-free rates show little volatility.

(Insert Graph 2 here)

We use PPP based on GDP growth rates taken from the Penn World Table³ and countries' credit ratings, obtained from Fauver et al. (2003). Additionally, we employ country's EFW index⁴, obtained from the World Bank. Barth et al.(2008) derive the available dataset of bank regulatory environment by the World Bank Website⁵, we use it.

4.2 Event study

In discussion 1, our econometric study's methods are based on a traditional event study. We empirically examine stock responses to bank alliance or M&A announcements.

The methodology proposed by Brown and Warner (1985) is an event study that suits the purpose of this research. The standard asset pricing model, the single market model (CAPM), has been employed. Excess equity returns are calculated via this (1) model when statistically appropriate.

$$R_{it} = \alpha_i + \beta_i (R_{mt} - R_{ft}) + u_{it} \quad (1)$$

Here, R_{it} = return on stock i in period t ; R_{mt} = return on the market index portfolio return; R_{ft} = a default-free interest rates in period t ; u_{it} = error term for firm i in period t ; α_{it} and β_{it} represent the parameters.

The data are based on realized market returns for equity holders of financial intermediaries. The residuals of the above model are the AR. Cumulative abnormal returns (CAR) are examined for various intervals within a 5-day period before and after the event date ($t = 0$).

The AR is given in formula (2) below, using the parameters estimated by the formula.

³ https://pwt.sas.upenn.edu/php_site/pwt_index.php. The Penn World Table provides purchasing power parity and national income accounts converted to international prices for 189 countries/territories for some or all of the years 1950-2010.

⁴ The Economic Freedom of the World (EFW) index, maintained by the World Bank, measures the overall level of a country's restrictiveness in terms of its economic, institutional, and developmental environments.

⁵ <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:20345037%7EpagePK:64214825%7EpiPK:64214943%7EtheSitePK:469382,00.html>

$$AR_{it} = R_{it} - \left(\hat{\alpha}_i + \hat{\beta}_i (R_{mt} - R_{ft}) \right) \quad (2)$$

AR_{it}=abnormal return for firm i in period t.

The standardized abnormal return (SAR) is given by formula (3), using the method of Patell (1976).

$$SAR_{it} = \frac{AR_{it}}{\hat{\sigma}_{it}} \quad (3)$$

SCAR_{it} is data that accumulate vertically over the time series data of SAR_{it}. Next, we test the SCAR_{it} using two kinds of tests: the z-test for the value of mean=0 and the sign-test, a non-parametric method, for the value of median=0. We then establish null hypotheses. In the first, H0: mean or median of SCAR=0, and, in the alternative hypothesis, H1: mean or median of SCAR≠0.

The “estimation window” is set from -100 days (100 days before an event) to -11 day (11 days before an event), and the “event window” is set from -5 days (5 day before event) to +5 days (5 days after an event). We calculate the SCAR during the term of the event window. To determine any pre-leaked information, we use thorough event windows, setting additional estimation windows before and after the event day.

4.3 Cross-sectional residual SCAR regressions: Bank cases

For discussion 2, we regression analyze the SCAR, which has been recognized as statistically significant by event studies as an independent variable, along with the eight strategic variables shown by Altunbas and Marques (2008). We employ the step-wise regression method to avoid multicollinearity.

We adapt Altunbas and Marques’ (2008) strategic variables to Asian bank cases and adjust them to our research. As Asian countries use accounting systems different from those in the U.S. and Europe, we cannot use the strategic accounting variables used in Altunbas and Marques (2008). We present eight strategic variables along with their proxy variables in the bank industry case, as seen in Table 1.

(Insert Table 1 here.)

We employ the ratio of other operational income and two kinds of dummy variables, the other industry dummy variable and the gross border dummy variables as the proxy variables for “1, Earning diversification strategy” as a representative index for diversified activities, diversified industries, or geographic cross border activities. For “2, Risk strategy”, we employ provisions ratio = loan loss provisions / net interest revenue, non-performing loans ratio = non-performing loans / total loans for credit risk. We employ the loan ratios = total loans / total assets, deposit-loans ratio = total loans / total

deposits for deposit activity. The total cost ratio = total costs / operating income for the current year is a proxy variable for “3, Cost controlling strategy.” For “4, Capital adequacy level strategy,” we employ three kinds of variables: total capital/total assets, Tier 1 capital/risk assets, and BIS standard. For “5, Liquidity risk strategy,” we calculate liquidity asset / total assets. For “6, Technology and innovation strategy,” we employ two kinds of variables, the standard error of total cash flows (total cash flow being the sum of the bank’s cash flow) and investment and financial cash flows, as in Minton and Scharand (1999). Minton and Scharand (1999) indicate that companies with highly volatile cash flows tend to invest less and engage in fewer R&D and advertising activities. I employ the standard error of total cash flows (insurance cash flow + investment cash flow + financial cash flow) as a proxy for R&D. The equipment cost ratio = Equipment Expense / operating income, as a generally IT-related cost, is regarded as the cost of equipment in the banking accounting system. Additionally, we employ ROA = net income/total asset and size = log(Bank Asset) as control variables.

Finally, we use Asian country dummy variables to capture the cross-sectional variations across Asian countries’ characteristics.

5. SAMPLE DESCRIPTION

Graph 3 shows the number of acquirers and targets for Asian banks. Panel A shows the historical acquirers numbers. In 2002, the number reached around 100 for six months and then decreased; there have been fewer than ten recent acquisitions. Panel B shows the historical target numbers. As for the acquirers, the highest number of targets occurred over six months in 2002; the number then decreased, with fewer than ten recent transactions.

(Insert Graph 3 here.)

Graph 4 shows the share of acquirer and target countries. Panel A shows the acquirer share. The four largest countries are Japan (17%), Thailand (16%), Australia (15%), and India (14%). The top five counterparty industries are banks (35.35%), retail banks (9.33%), securities (7.28%), investment advisory services (6.93%), life insurance (6.04%), and other investments (3.64%). Asian banks are almost tied with trade banks, at about 45%. Panel B shows the target share. The five largest countries are Japan (17%), Indonesia (13%), India (12%), Taiwan (9%), and Korea (8%). The top five counterparty industries are banks (54.29%), other investments (21.36%), investment advisory services (4.29%), securities (3.45%), and life insurance (2.89%). Asian banks are tied with trade banks, at over 50%.

(Insert Graph 4 here.)

(Insert Table 2 here.)

Table 2 presents the means for alliance transactions and compares them with the means for M&A transactions for both acquirers and targets.

In the mean values of alliance transactions, we find a large difference between acquirers and targets for three ratios: the deposit-loans ratio, equipment cost ratio, and cross border dummy. Acquirers' deposit-loans ratio is low, while that of the targets is a little higher. Acquirers' equipment cost ratio is surprisingly high, while that of targets is very low. The equipment cost ratio is considered a surrogate variable for IT costs in the banking industry because banks belong to the information industry and take huge IT costs as object costs (object costs are the same as equipment costs in Thomson's data base). The cross-border dummy means of both the acquirers and targets are relatively higher than in M&A. In alliance cases, then, we may say that banks with high information technology literacy promote alliances to acquire loan businesses with banks with many loans while banks with less IT literacy use cross-border transactions.

The next column focuses on the means of M&A transactions. We find a large difference between acquirers and targets for three ratios: bad loan ratio, deposit-loans ratio, and the "other industry" dummy. Acquirers' bad loan ratio is low while the targets' is higher, indicating that it is a relief policy for unsound banks. As with alliances, acquirers' deposit-loans ratio of acquirer is low, while that of target is a little higher. The means of the "other industry" dummy for both acquires and targets are relatively lower than for alliances. In M&A, then, we may say that domestic and non-diversified banks purchase unsound banks with many loans for relief policy purposes.

6. EMPIRICAL RESULTS

6.1 Discussion 1: Stock performances

6.1.1 Bank cases

We empirically examine the effects of Asian listed bank's strategic business changes, such as alliances and M&A, using the event study econometric method, focusing on short-term analyses.

The results of the empirical analyses for all data are shown in Table 3. We conduct two kinds of sub-sample analyses, on acquirers in Panel A and targets in Panel B. The persistence of statistically significant excess returns (SCAR) seems to dominate, on the mean and/or median and for almost all combinations, from the 9-day [-5, +3] to the 4-day [-2, +1] event window. We conduct two kinds of statistical test, the SCAR's Z-test, testing the value of mean=0, and the sign test, testing the value of

median=0. Bank acquirers have a small average SCAR of 0.453% on the day [-5, +3], which is statistically significant at the 1% level in the Z-test and the 5% level in the sign test. Bank targets have a large SCAR of 1.707%, four times that of bank acquirers, significant at the 1% level. The target banks' SCAR is much larger than the acquirers'.

(Insert Table 3 here.)

Table 4 presents the results of bank alliance transactions and two sub-sample cases, acquirers in Panel A and targets in Panel B. All target results are statistically significant at a high level in the Z-test and sign test. A few acquirer results are significant at a low (5% or 10%) level. Alliance transactions in the bank acquirer case have a small average SCAR of 0.399% on the day [-5, +3], significant at the 10% level; the bank target case has a larger average SCAR of 1.783%, significant at the 1% level.

(Insert Table 4 here.)

We now discuss cross-border alliances. Surprisingly, bank targets' SCAR has the highest value, with an average SCAR of 1.783% on the day [-5, +3], while bank acquirers display no significant combination. In contrast, both the acquirer and target SCAR for all combinations in the domestic case are smaller than those in cross-border transactions.

Comparing the average SCAR on the day [-5, +3] in the alliance cases, the largest SCAR (4.457%) is driven by the targets' cross-border case, while the smallest (0.328%) is driven by the acquirers' domestic case. We rank the alliance SCAR in descending order as follows: target's cross border case> target's industry diversification case (same as tie up with other industries cases) target's all alliance> target's domestic case> acquirer's industry diversification case acquirer's all alliance > acquirer's domestic case. The targets' SCAR is larger than the acquirers', and cross-border SCAR is the dominant diversification and domestic SCAR.

(Insert Table 5 here.)

Table 5 presents the results of bank M&A transactions and of two sub-sample cases, acquirers in Panel A and targets in Panel B. All target results are statistically significant at a high level in the Z-test and the sign test, but a few acquirer results are significant at a low level, as in the alliance cases. Among bank acquirer M&A transactions, the small average SCAR of 0.467% on the day [-5, +3], significant at the 5% level, is the same as in alliance transactions. The bank target case shows a larger average SCAR of 2.684%, significant at the 1% level, higher than in alliance transactions.

The bank target SCAR has a large value, with an average of 3.175% on the day [-5, +3], significant in almost all combinations, while the bank acquirer case shows no significance and has negative signs. In the domestic case, by contrast, the target average SCAR of 2.436% is larger than in the alliance transactions. We rank the SCAR of M&A transactions in descending order as follows: target's cross border case> target's industry diversification case (same as tie up with other industries cases)> target's all alliance> target's domestic case> acquirer's industry diversification case> acquirer's all alliance > acquirer's domestic case. This ranking is similar to that of the alliance transactions.

We now summarize the effects of the stock market response to listed banks' announcements of alliances or M&A. First, the targets' SCAR is larger than the acquirers' in both alliances and M&A. Second, in cross-border target cases, the SCAR in both alliances and M&A are dominated by diversification and domestic SCAR. Third, cross-border alliance targets' SCAR is 1.5 times larger than M&A's SCAR. By contrast, M&A domestic targets' SCAR is three times larger than alliance's SCAR. Fourth, there is little difference in diversification between alliance and M&A.

6.1.2 Insurance cases

I empirically examine the effects of Asian insurance companies' return performance compared to that of banks. Table 6 presents the results of bank alliance transactions.

(Insert Table 6 here.)

For insurance company acquirers, there is a negative average SCAR of -0.358 on the day [-5, +3], which is not statistically significant. In the target case, there is a positive SCAR of 7.267%, significantly. Surprisingly, there is no significance in the alliance acquirer case. Moreover, though not reported because of space constraints, there are few signs of significance for M&A in both the acquirer and target cases. The only sphere of investor interest is thus the alliance target case. We can therefore say that the results show that investors take little interest in Asian insurance companies' alliance and M&A, representing a significant difference from banks.

6.2 Discussion 2: Strategic factors

We empirically extract the strategic factors from the SCAR in bank alliances and M&A. The market-adjusted return for the significant bank SCAR presented in section 6.1 from nine days [-5, +3] to four days [-2, +1] surrounding the announcement day is the dependent variable in each cross-sectional regression model. As shown in Altunbas and Marques (2008), the independent variables are strategic factors and include earning diversification strategies, risk strategies, cost

controlling strategies, capital adequacy level strategies, liquidity risk strategies, and technology and innovation strategies. In examining these factors, we employ the step-wise regression method to avoid multicollinearity problems and use White's (1980) heteroscedasticity-adjusted standard errors.

6.2.1 Alliances

Table 7 shows the results of the cross-section of alliance acquirers. Acquirer gains are roughly 1.2% to 1.7% higher for transactions classified as cross-border acquisitions than for domestic acquisitions as a diversification strategy. The coefficient on the cross-border dummy in equations (1), (2), and (5) is significant at the 10% level.

Some equations show that acquirer returns are negatively associated with the credit risk ratio, loan ratio, and deposit-loans ratio as risk strategies, indicating that investors value sound banks with a low provisions ratio and a small loan business. We consider the combination of cost controlling and technology strategies. The sign of the total cost ratio is negative while that of the equipment cost ratio is positive, indicating that markets value efficiently run banks with low total costs but with high IT literacy. Compared to Australian investors, Asian investors expect significantly less value creation from banks in countries like Indonesia, Singapore, Thailand, and the Philippines. Australia uses common law but other countries showing significant results do not. Market players appear to value bank transactions in common law countries.

(Insert Table 7 here.)

Table 8 shows the results of the cross-section in alliance targets. Target gains show a higher return than acquirer gains as a diversification strategy. The coefficient of the cross-border dummy in most equations is significant at the 1% or 5% level. Thus, investors, on average, expect significantly more value creation (from 5.5% to 6.5%) from a bank's target cross-border transaction than a domestic one.

Most equations show that the target return is positively associated with the loan ratio as a risk strategy and the total cost ratio as a cost strategy, adverse signs of acquirer return, indicating that investors value banks with a low loan ratio to promote purchases of bigger loan business through mutually complementary alliances between acquirers and targets. The sign of the total cost ratio is positive, but that of the equipment cost ratio is neutral. The combination of this result and the previous acquisition result indicates that investors value efficiently run acquisition banks with lower total costs but that those with high IT literacy align with banks and firms with inefficient targets in a mutually complementary way. As with acquirers, Asian investors expect significantly less value creation from banks than Australian investors do; this is especially true of investors in Japan, Indonesia, Malaysia, Korea, the Philippines, Hong Kong, and Taiwan.

(Insert Table 8 here.)

We now summarize the cross-sectional alliance results for both acquirers and targets. A cross-border diversification strategy is expected to produce more value creation, and investors value banks with low loan ratios to promote the purchase of larger loan business through mutually complementary alliances between acquirers and targets, but simultaneously efficient running acquisition banks with lower total costs but high IT literacy take over inefficient targets with high costs. Finally, investors are not interested in industrial diversification strategies, a significant difference from Europe and the U.S., with their conglomerates and bancassurance systems.

6.2.2 M&A

Table 9 presents the results of the cross-section for M&A acquirers, and Table 10 presents the results for M&A targets.

(Insert Table 9 here)

(Insert Table 10 here)

Cross-border diversification strategies are expected to produce less value creation than domestic ones, as shown by the negative coefficient for the cross-border dummy in Table 9. Investors value unsound (low capital ratio) acquisition banks with efficient cost management, large loan book, and cash holdings. Compared to Australia, the coefficient of the dummy variables for Indonesia and Korea show a positive significant sign. Investors expect significantly more value creation in Indonesia and Korea, counties that have gotten IMF emergency assistance, than they do in Hong Kong.

In the results of the M&A targets shown in Table 10, there are only two significant variables, positive deposit-loans ratio and negative equipment cost ratio, both above the 5% level, indicating that markets value target banks with many loans but lower IT literacy.

We now summarize the cross-sectional M&A results for both acquirers and targets. Domestic strategies are expected to produce more value creation, and investors value domestic banks with many loans to promote the purchase of more loan businesses through M&A, but simultaneously efficiently run acquisition banks with high liquidity take over banks with poor IT literacy. Investors expect significantly more value creation in Indonesia and Korea, counties that have received IMF emergency assistance, than Australian investors do. One may say that M&A tools in Asia seem to represent a relief policy for unsound national banks.

6.3 Discussion 3: Characteristics of Asian countries

The goal of this section is to examine whether adding country dummies using various combinations of strategic variables helps to further explain the cross-border effect by testing whether cross-border country characteristics are related to bank returns.

First, we check the relationship between the cross-sectional coefficient values of the country dummy and the GDP growth rates. We calculate (an unreported) 5-year average PPP based on GDP growth rates taken from the Penn World Table and compare the cross-sectional coefficient values of the country dummies. Regrettably, the highest GDP growth country, China, has no significant cross-sectional coefficient value for the country dummy. There is no obvious relationship between bank returns and GDP growth.

Second, we check the relationship between bank returns and countries' credit ratings, obtained from Fauver et al. (2003). We calculate the correlation coefficients between the coefficient value of the country dummy and the country's credit rating for four cases: alliance acquirer (see Table 7), alliance target (see Table 8), M&A acquirer (see Table 9), and M&A target (see Table 10). Not surprisingly, the alliance target case shows a high correlation coefficient (0.97). The cross-border effect is strongly related to a country's credit rating. Our empirical results in Tables 9 and 10 show a positive coefficient dummy value for Indonesia and Korea, countries that have received emergency IMF assistance; we can obtain clear results using a country's credit risk. Investors welcome the IMF's relief programs and expect weak economies to strengthen. We also check the relationship between bank returns and a country's EFW index, obtained from the World Bank. The alliance target case produces a high positive correlation coefficient (0.58). The cross-border effect is strongly related to the degree of a country's economic freedom.

Third, we check the relationship between the cross-sectional coefficient value and the legal and market systems. Rossi (2004) and Moeller (2005) empirically show that M&A returns differ according to differences in nationality, legal and market systems, regulatory systems, and the degree to which the maturity of a nation's bidder/target depends on firm value. The result from Table 7 to Table 10, almost county's dummy variable shows negative. We set county's dummy variable based on Australia, then it means that almost country's benefits below Australian benefits. As Suzuki (2012) proposes that M&A premiums in common law countries such as Australia, India, Malaysia, and Singapore are higher than in countries that do not use the common law. The negative county's dummy variable shows that Asian investors expect significantly less value creation from banks than Australian investors do, especially those in Indonesia, Singapore, Thailand, and the Philippines. The Australian legal system is based on common law, but other countries with significant results are not. Market players seem to value bank transactions in common law countries.

Finally, we check the relationship between the cross-sectional coefficient value and the regulation and supervision systems. Barth et al.(2001,2004,2008) empirically show the difference between broad array of bank regulations and supervisory practice and bank development, performance and stability. We calculate three regulatory dummy variables shown in Barth et al. (2004) as restrictions on bank activities index, entry into banking requirements index and private monitoring index. Next we estimate the correlation coefficients between the coefficient value and of three regulatory dummy variables, for four cases: alliance acquirer (see Table 11), alliance target (not reported), M&A acquirer (not reported), and M&A target (not reported). We can find the significant results only alliance acquirer cases. For the other cases, we can get little significant regulatory dummy variables at all. In Table 11, Each regression contain explain variable as table7 equation (8), for the space we omit the similar results. We find that regulatory restrictions and entry into banking requirements are strongly negatively associated with the bank performance (regression (a),(b), (d) and (e)). While the Private monitoring index is positively associated with bank AR. It is said that the loosen regulatory bank action restrictions raise the bank returns, more stringent barriers to foreign-bank entry rise the bank return and larger private monitoring of banks have better performing banks. In case of alliance acquirer, in the sting circumstance of barriers to foreign-bank entry, loosen bank action restrictions and large private monitoring promote better banking sector outcomes though cross-border transactions. But here we notice the important reminder that for China, Malaysia and Philippines, there are much missing data in Barth's et al.(2004) database, then we can NOT include these countries for regulatory comparing analysis.

7. CONCLUSION

This paper, representing research that began in 2000, empirically examines the effects of the Asian stock market's response to and management strategies for banks' alliance and M&A announcements, using an event study and multiple regression analysis. We examine the strategic management factor as performed in Altunbas and Marques (2008), using a step-wise regression method for which the dependent variable is SCAR and the independent variables include six strategic factors. Furthermore, we explain the cross-border effect by testing whether cross-border country characteristics are related to bank returns.

Through traditional short-term event study methods, we make three important discoveries about Asian banks. First, the target's SCAR is larger than the acquirer's in both alliances and M&A. Second, the cross-border targets' SCAR in both alliances and M&A is dominated by diversification, unlike for domestic SCAR. Third, for alliances, cross-border targets' SCAR is 1.5 times larger than the M&A's, while domestic M&A targets' SCAR is 3 times larger than alliances'. Fourth, there is little difference

in diversifications between alliances and M&A.

The cross-sectional alliance results suggest that cross-border diversification strategies usually target value creation. Investors value banks with low loan ratios as ways to purchase larger loans for business through mutually complementary alliances between acquirers and targets, but simultaneously efficient running acquisition banks with lower total costs but high IT literacy acquire inefficient targets with high costs. Finally, investors are not interested in industrial diversification strategies, a significant difference from Europe and the U.S., with their conglomerates and bank-insurance mergers (“bancassurance”). The M&A results suggest that domestic strategies usually target value creation. Compared to their Australian counterparts, Asian investors expect significantly more value creation, especially in countries that have received IMF emergency assistance. Asian banks’ M&A tools appear to be relief methods for unsound banks.

We can explain the cross-border effect through national characteristics: it is strongly related to national credit ratings. Investors welcome IMF relief programs and expect weak target economies to strengthen. The effect is also strongly positively related to the degree of a country’s economic freedom and has relationships with cross-sectional coefficient values and Asia’s legal and market systems. In case of alliance acquirer, in the sting circumstance of barriers to foreign-bank entry, loosen bank action restrictions and large private monitoring promote better banking sector outcomes though cross-border transactions.

This study has considered some issues that have remained unexamined. I comprehensively investigate the differences among Asia’s financial, regulatory, and economic systems. We will use Barth’s et al.(2004) database for a detailed analysis and then empirically analyze the data using not only short-term but also for a mid- and long-term focus. I intend to more comprehensively consider the relationships among Asia’s financial institutions.

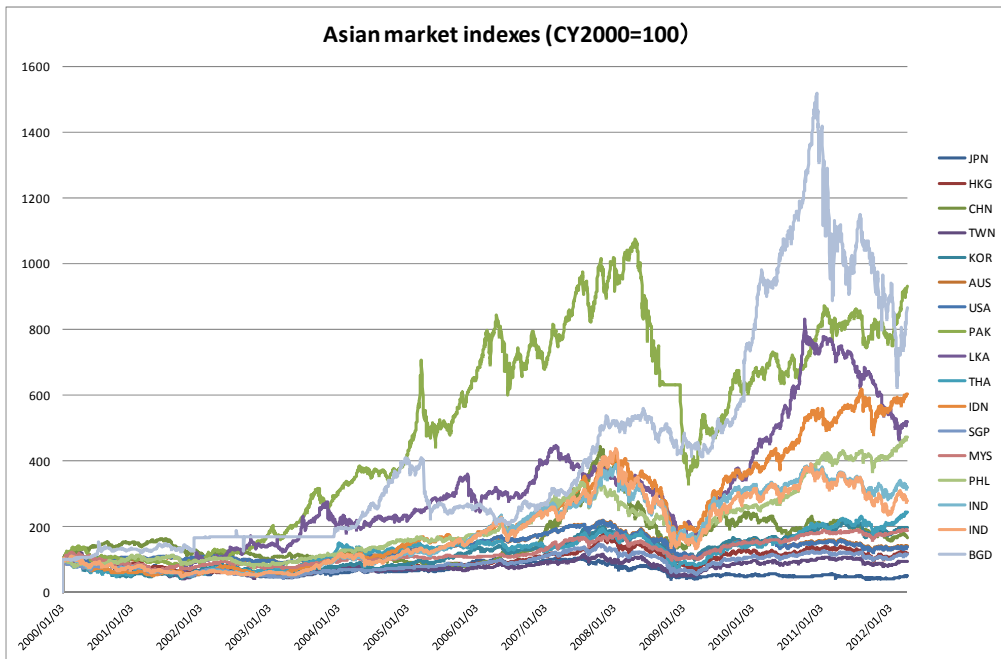
References

- Akhigbe, A. and J. Madura (2001), Intra-Industry Signals Resulting from Insurance Company Mergers, *Journal of Risk and Insurance*, 68-3, 489-506.
- Allen, L. and J. Jagtiani (2000), The Risk Effects of Combining Banking, Securities, and Insurance Activities, *Journal of Economics and Business*, 52, 485-497.
- Altunbas, Y. and D. Marques (2008), Mergers and Acquisitions and Bank Performance in Europe: The Role of Strategic Similarities, *Journal of Economics and Business*, 60, 204-422.

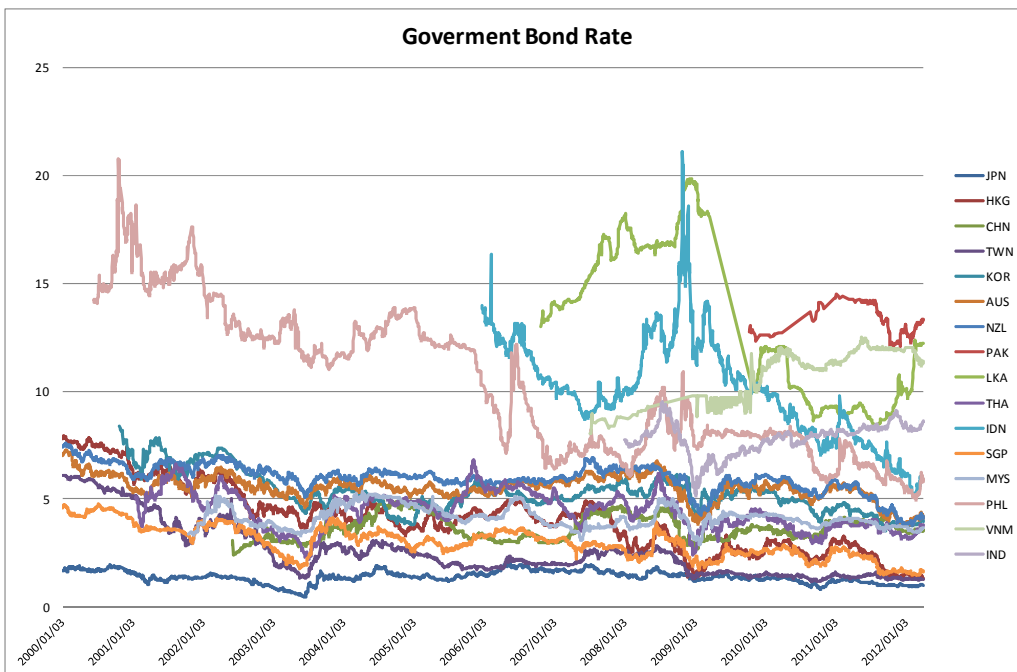
- Artikis, P.G., S. Stanley and S. Staikouras (2008), A Practical Approach to Blend Insurance in the Banking Network, *Journal of Risk Finance*, 9(2), 106-124.
- Barth, J.R., G. Caprio and R. Levine (2001), The Regulation and Supervision of banks around the world: A New Database, *The World Bank Working Paper*, 2588.
- Barth, J.R., G. Caprio and R. Levine (2004), Bank Regulation and Supervision: What works best?, *Journal of Financial Intermediation*, 13, 205-248.
- Barth, J.R., G. Caprio and R. Levine (2008), Bank Regulation are Changing ? : For Better or Worse?, *The World Bank Working Paper*, 4646.
- Chiou, I. and L. J. White (2005), Measuring the Value of Strategic Alliances in the Wake of a Financial Implosion: Evidence from Japan's Financial Services Sector, *Journal of Banking & Finance*, 29, 2455-2476.
- Cummins, J. and M.A. Weiss (2004), Consolidation in the European Insurance Industry: Do Mergers and Acquisitions Create Value for Shareholders? Working Paper, Alfred P. Sloan Foundation.
- Fauver, L., J. Houston and A. Naranjo (2003), Capital market development, international integration, legal systems, and the value of corporate diversification: A cross-country analysis, *Journal of Financial and Quantitative Analysis*, 38-1, 135-157
- Field, L.P., D.R. Fraser and J.W. Kolari (2007), Bidder Return in Bancassurance Mergers: Is There Evidence of Synergy? *Journal of Banking & Finance*, 31, 3466-3662.
- Malkonen, V. (2009), Financial Conglomeration and Monitoring Incentives, *Journal of Financial Stability*, 5, 105-123.
- Laeven, L. and R. Levine (2007), Is There a Diversification Discount in Financial Conglomerates? *Journal of Financial Economics*, 85, 331-367.
- Lelyveld, I. and K. Knot (2009), Do Financial Conglomerates Create or Destroy Value? Evidence for the EU, *Journal of Banking and Finance*, 33, 2312-2321.
- Makimoto, N. (2007), The Study of Purpose and Causality of M&A and Alliance by Covariance Structure Analysis, *Mathematics of Finance and Accounting Business*, Asakura Press (in Japanese)
- Minton, B.A., and C. Schrand (1999), The Impact of Cash Flow Volatility on Discretionary Investment and the Costs of Debt and Equity Financing, *Journal of Financial Economics*, 54, 423-460.
- Moller, S.B., and F. P. Schillingmann (2005), Global Diversification and Bidder Gains: A Comparison between Cross-Border and Domestic Acquisitions, *Journal of Banking and Finance*, 29, 533-564
- Patell, J. M. (1976), Corporate Forecasts of Earnings per Share and Stock Price Behavior: Empirical Tests, *Journal of Accounting Research*, 14(2), 246-274.
- Rossi, S. and Volpin, P. (2004), Cross-country determinants of mergers and acquisitions. *Journal of*

- Financial Economics*, 74, 277-304.
- Saikouras, S.K. (2009), An Event Study of International Ventures Between Banks and Insurance Firms, *Journal of International Financial Markets Institutions and Money*, 19, 675-691.
- Sakai, K., K. Tsuru and K. Hosono (2009), Merger of Credit Unions, *Kinyu-keizai kenkyu*, 28, 47-63 (in Japanese).
- Schmid, M. and I. Walter (2009), Do Financial Conglomerates Create or Destroy Economic Value?, *Journal of Financial Intermediation*, 18(2), 193-216.
- Steigner T. and N.K. Sutton (2011), How Does National Culture Impact Internalization Benefits in Cross –Border Mergers and Acquisitions?, *The Financial Review*, 46, 103-125.
- White, H. (1980), A heteroscedasticity-consistent covariance matrix estimator and a direct test for heteroscedasticity. *Econometrica* 48, 817–838.
- Yamori, N., K. Harimaya and K. Kondo (2003), Are Banks Affiliated with Bank Holding Companies More Efficient Than Independent Banks? The Recent Experience Regarding Japanese Regional BHCs, *Asia-Pacific Financial Markets*, 10(4), 359-376.

(Graph 1) The historical movements of Asian market indexes

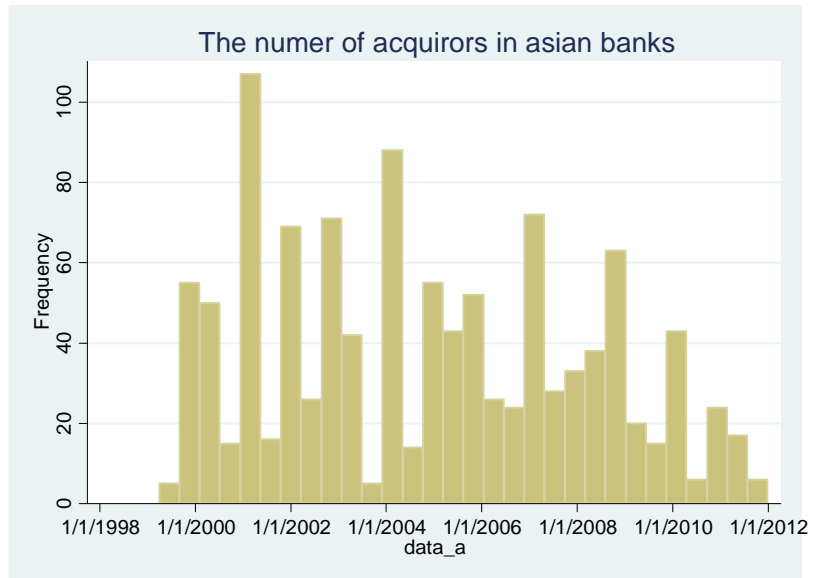


(Graph 2) The historical movements of Asian countries' risk-free rates

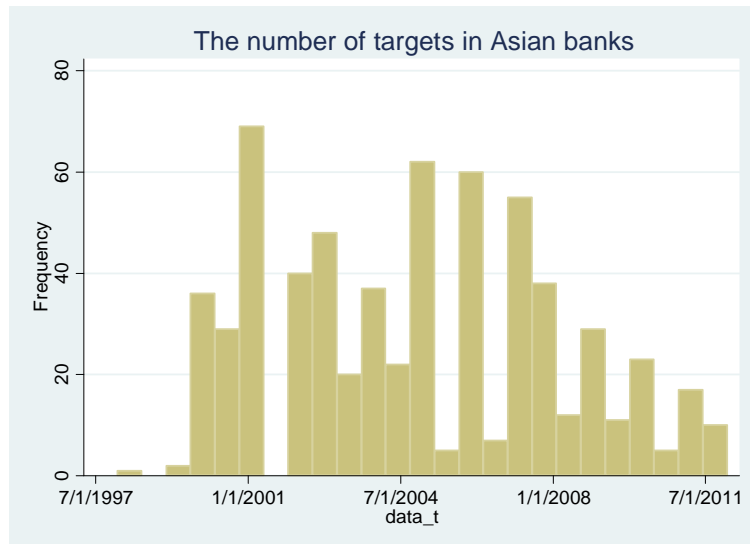


(Graph 3) The number of acquirers and targets for Asian banks

Panel A) Acquirers

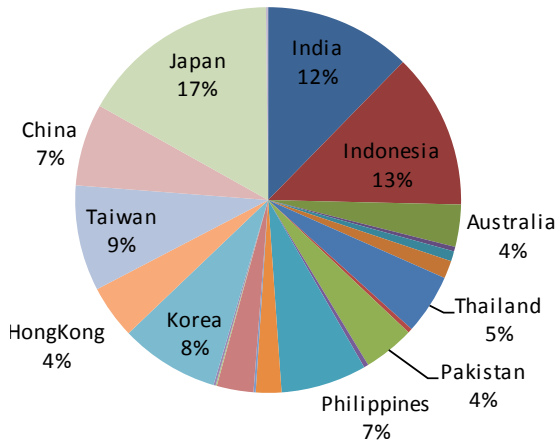


Panel B) Targets



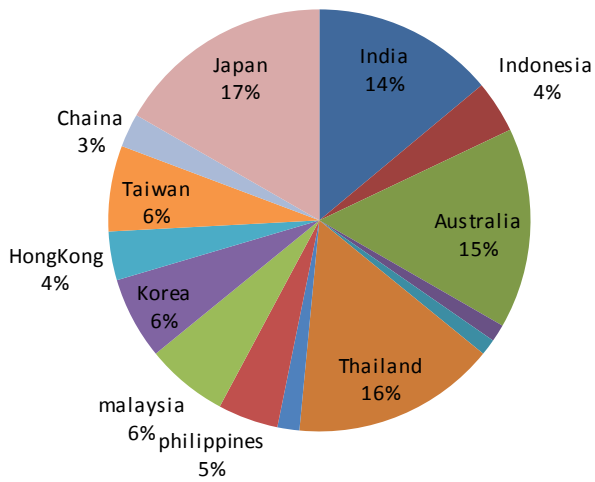
(Graph 4) The share of acquirer and target countries

Panel A) Acquirers



TOP5 industries of counterparty	%
Bank	54.29%
Other investment	21.36%
Investment advisory service	4.29%
Securities	3.45%
Life insurances	2.89%

Panel B) Targets



TOP5 industries of counterparty	%
Bank	35.35
Retailed bank	9.33
Securities	7.28
Investment advisory service	6.93
Life insurances	6.04
Other investment	3.64

(Table 1) The strategy variable for Asian banks

Strategy	Variables in bank cases in Altunbas and Marques (2008)	Proxy variables in this paper
1. Earning diversification strategy	(1) Diversity of earnings : other operational revenue / total assets (2) Off-balance sheet activity : off-balance sheet items / total assets	the other operational income ratio = other operational revenue / total assets Other industry Dummy Cross border Dummy
2. Risk strategy	(1) Credit risk : loan loss provisions / net interest revenue (2) Loan ratio : loans / total assets (3) Deposit activity : customer loans / customer deposits	(1) Credit risk : provisions ratio (credit risk1) = loan loss provisions / net interest revenue non-performing loan ratio (credit risk2) = non-performing loans / total loans (2) Loan ratio Loan ratio = total loans / total assets (3) deposit activity deposit-loans ratio = total loans / total deposits
3. Cost controlling strategy	Total costs / income	total cost ratio = total costs / operating income
4. Capital adequacy level strategy	Total capital / total asset	total capital ratio = total capital / Total Asset capital ratio2 = Tier1 capital / risk asset BIS standard
5. Liquidity risk strategy	Liquidity asset / total assets	Liquidity ratio = Liquidity asset / total assets
6. Technology and innovation strategy	R&D : other expense / total asset	standard deviation of cash flows (sdcf) = ln(The standard deviation of [bank cash flow + investment cash flow + financial cash flow]) (*1) equipment cost ratio = Equipment Expense / operating income
Controls	ROA Size	ROA = net income / total asset size = ln(Asset)

*1. According to Minton and Scharand (1999), companies with highly volatile cash flows tend to invest less and engage in fewer R&D and advertising activities. We employ the standard error of total cash flows (insurance cash flow + investment cash flow + financial cash flow) as a proxy for R&D.

(Table 2) Univariate statistics

		alliance		M&A	
		acquirer	target	acquirer	target
1,earning diversification strategy	Abnormal Return	0.399	1.783	0.467	2.684
	the other operational income ratio	0.005	0.012	0.004	0.012
	Other industry Dummy	0.829	0.828	0.701	0.566
	Cross border Dummy	0.192	0.297	0.174	0.197
2,risk strategy	bad loan ratio	0.068	0.071	0.049	0.074
	deposit-loans ratio	1.029	1.307	1.019	1.632
	total cost ratio	4.906	4.323	2.802	4.976
3,cost controlling strategy	total capital ratio	0.147	0.226	0.142	0.191
4,capital adequacy level strategy	liquidity ratio	0.230	0.228	0.237	0.278
5,liquidity risk strategy	R&D(The standard deviation of cash flows)	8.610	6.319	8.516	6.769
6,tecnology and innovation strategy	equipment cost ratio	0.303	0.006	0.067	0.080

(Table 3) The results of the banks' simple event study

Panel A) Acquirers

all asia bk	day	SCAR	p-value	
asia bk:acquirer	[-5,1]	mean 0.444 %	(0.000) ***	
		median 0.231 %	(0.020) **	
	[-5,2]	mean 0.505 %	(0.000) ***	
		median 0.269 %	(0.041) **	
	[-5,3]	mean 0.453 %	(0.000) ***	
		median 0.282 %	(0.029) **	
	[-2,1]	mean 0.277 %	(0.001) ***	
		median 0.136 %	(0.134)	
	[-2,2]	mean 0.338 %	(0.000) ***	
		median 0.184 %	(0.004) ***	
	[-2,3]	mean 0.286 %	(0.004) ***	
		median 0.081 %	(0.453)	
		n	861	

Panel B) Targets

all asia bk	day	SCAR	p-value	
asia bk:target	[-5,1]	mean 1.838 %	(0.000) ***	
		median 0.918 %	(0.000) ***	
	[-5,2]	mean 1.858 %	(0.000) ***	
		median 1.080 %	(0.000) ***	
	[-5,3]	mean 1.707 %	(0.000) ***	
		median 1.093 %	(0.000) ***	
	[-2,1]	mean 1.541 %	(0.000) ***	
		median 0.651 %	(0.000) ***	
	[-2,2]	mean 1.561 %	(0.000) ***	
		median 0.628 %	(0.000) ***	
	[-2,3]	mean 1.411 %	(0.000) ***	
		median 0.541 %	(0.000) ***	
		n	515	

*1, H0: average of SCAR=0, H1: average of SCAR≠0

*2, H0: median of SCAR=0, H1: median of SCAR≠0

*3, P value in parenthesis

*4, ***: significant at 1%, **: significant at 5%, *: significant at 10%

(Table 4) The results of bank alliance transactions

Panel A) Acquirers

alliance	day	SCAR %	alliance	cross border	domestic	other industries	
asia bk:acquirer	[-5,1]	mean	0.482 **	0.982	0.364 *	0.491 **	
		median	0.099	0.244	0.033	0.104	
	[-5,2]	mean	0.474 **	0.892	0.375 *	0.481 **	
		median	0.189	0.608	-0.066	0.232	
	[-5,3]	mean	0.399 *	0.700	0.328	0.426 *	
		median	0.228	0.133	0.288	0.304	
	[-2,1]	mean	0.373 **	0.732	0.287 *	0.343 **	
		median	-0.007	-0.007	-0.021	-0.010	
	[-2,2]	mean	0.364 **	0.642	0.298 *	0.333 *	
		median	0.177	-0.202	0.217	0.220	
	[-2,3]	mean	0.289	0.450	0.251	0.278	
		median	-0.132	-0.576	0.023	-0.079	
		n		240	46	194	199

Panel B) Targets

alliance	day	SCAR %	alliance	cross border	domestic	other industries	
asia bk:target	[-5,1]	mean	1.736 ***	3.976 **	0.872 **	1.894 ***	
		median	0.559 ***	1.140 **	0.486 *	0.520 **	
	[-5,2]	mean	1.790 ***	4.382 **	0.785 **	1.884 ***	
		median	0.605 ***	1.290 ***	0.303	0.392 **	
	[-5,3]	mean	1.783 ***	4.573 **	0.699 *	1.860 ***	
		median	0.792 ***	1.766 **	0.495 *	0.617 **	
	[-2,1]	mean	1.363 **	3.179 *	0.667 *	1.475 **	
		median	0.302 **	0.608 **	0.232	0.219	
	[-2,2]	mean	1.417 **	3.585 **	0.580 *	1.465 **	
		median	0.401 **	1.087 ***	0.108	0.191	
	[-2,3]	mean	1.410 **	3.777 **	0.495	1.441 **	
		median	0.297 ***	1.396 ***	0.136	0.212	
		n		194	57	135	159

*1, H0: average of SCAR=0, H1 : average of SCAR≠0

*2, H0: median of SCAR=0, H1 : median of SCAR≠0

*3, P value in parenthesis

*4, ***, significant at 1%, **: significant at 5%, *: significant at 10%

(Table 5) The results of bank M&A transactions

Panel A) Acquirers

M&A	day	SCAR %	M&A	cross border	domestic	other industries
asia bk:acquirer	[-5,1]	mean	0.395 **	-0.247	0.531 ***	0.383 **
		median	0.290 **	-0.111	0.402 **	0.365 **
	[-5,2]	mean	0.540 ***	-0.077	0.670 ***	0.593 ***
		median	0.492 **	-0.059	0.691 ***	0.706 ***
	[-5,3]	mean	0.467 **	0.217	0.520 **	0.574 ***
		median	0.403 **	0.236	0.421 *	0.624 ***
	[-2,1]	mean	0.153	-0.467	0.284 *	0.031
		median	0.154	-0.027	0.298	0.002
	[-2,2]	mean	0.298 **	-0.297	0.424 **	0.240
		median	0.184 *	-0.274	0.301 **	0.175
	[-2,3]	mean	0.225	-0.003	0.273	0.221
		median	0.110	0.110	0.109	0.167
	n		351	61	290	246

Panel B) Targets

M&A	day	SCAR %	M&A	cross border	domestic	other industries
asia bk:target	[-5,1]	mean	3.060 ***	3.500 **	2.871 ***	3.175 **
		median	1.995 ***	1.023 *	2.373 ***	2.230 ***
	[-5,2]	mean	2.998 ***	3.356 **	2.818 ***	3.186 **
		median	2.143 ***	1.230	2.204 ***	2.586 ***
	[-5,3]	mean	2.684 ***	3.175 **	2.436 **	2.899 *
		median	2.056 ***	0.623	2.069 ***	2.407 ***
	[-2,1]	mean	2.715 ***	2.863 **	2.633 ***	2.807 **
		median	1.375 ***	0.946 **	1.380 ***	2.771 ***
	[-2,2]	mean	2.653 ***	2.719 **	2.581 **	2.818 *
		median	1.235 ***	1.221 *	1.235 ***	1.908 ***
	[-2,3]	mean	2.339 **	2.538 **	2.199 *	2.531
		median	1.219 ***	0.603	1.284 ***	2.518 ***
	n		123	24	98	69

*1, H0: average of SCAR=0, H1: average of SCAR≠0

*2, H0: median of SCAR=0, H1: median of SCAR≠0

*3, P value in parenthesis

*4, ***: significant at 1%, **: significant at 5%, *: significant at 10%

(Table 6) The results of insurance companies' alliance transactions

Panel A) Acquirers

alliance	day	SCAR %	alliance	cross border	domestic	other industries
asia insurance :acquirer	[-5,1]	mean	-0.045	-0.977	0.180	0.467
		median	0.021	-0.807	0.162	0.391
	[-5,2]	mean	-0.322	-0.833	-0.199	0.217
		median	-0.146	-0.658	-0.109	0.136
	[-5,3]	mean	-0.358	-0.920	-0.223	0.092
		median	-0.066	-0.480 *	0.090	-0.170
	[-2,1]	mean	0.223	0.605	0.131	0.398
		median	0.107	0.295	0.041	0.115
	[-2,2]	mean	-0.055	0.750	-0.248	0.149
		median	-0.159	0.369	-0.327	-0.307
	[-2,3]	mean	-0.091	0.663	-0.272	0.024
		median	-0.117	0.701	-0.199	-0.406
	n		67	13	54	53

Panel B) Targets

alliance	day	SCAR %	alliance	cross border	domestic	other industries
asia insurance :target	[-5,1]	mean	7.007 **	1.241	5.871 *	6.668 *
		median	0.463	0.445	0.458	0.463
	[-5,2]	mean	7.211 **	1.265	6.156 *	6.809 *
		median	0.896	0.071	1.075 *	0.896
	[-5,3]	mean	7.267 **	1.447	6.208 *	6.771 *
		median	1.023	-0.238	1.178	1.023
	[-2,1]	mean	6.674 **	0.833	5.533 *	6.458 *
		median	0.669	-0.113	0.699 *	0.669
	[-2,2]	mean	6.879 **	0.858	5.818 *	6.599 *
		median	0.947 **	0.085	1.134 **	0.947 **
	[-2,3]	mean	6.934 **	1.040	5.870 *	6.561 *
		median	0.498	-0.225	0.597 **	0.498
	n		68	16	51	64

*1, H0: average of SCAR=0, H1: average of SCAR≠0

*2, H0: median of SCAR=0, H1: median of SCAR≠0

*3, P value in parenthesis

*4, ***: significant at 1%, **: significant at 5%, *: significant at 10%

(Table 7) The cross-sectional results in alliance acquirers

alliance, acquiror	AR calculation term	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		[-5,+1]	[-5,+2]	[-5,+3]	[-2,+1]	[-2,+2]	[-2,+3]	[-2,+2]BISadjusted	[-2,+2]	[-2,+2]BISadjusted
variables		coefficient	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
1.earning diversification strategy	the other operational income							-128.027 (0.163)	-40.917 (0.438)	-208.993 * (0.055)
	Other industry Dummy	0.841 (0.295)	1.180 (0.175)	1.439 * (0.090)		0.562 (0.340)	0.826 (0.180)		0.447 (0.497)	
	Cross border Dummy	1.495 * (0.083)	1.714 * (0.065)	1.601 (0.101)	0.797 (0.264)	1.180 * (0.096)	1.072 (0.171)	0.884 (0.193)	1.008 (0.153)	
2.risk strategy	Credit risk	-0.188 (0.218)	-0.204 (0.185)	-0.210 (0.296)	-0.219 * (0.099)	-0.256 * (0.052)	-0.268 (0.129)	-0.387 * (0.090)	-0.175 (0.226)	-0.184 (0.470)
	loans ratio	-5.516 * (0.097)	-6.022 * (0.098)	-8.690 ** (0.038)			-3.394 (0.372)	2.261 (0.491)		-3.965 (0.448)
	deposit-loans ratio	-5.511 * (0.056)	-5.719 ** (0.047)	-7.096 ** (0.025)	-5.369 ** (0.042)	-4.557 ** (0.046)	-6.727 ** (0.034)	-9.176 * (0.060)	-6.741 ** (0.024)	-11.423 ** (0.028)
3.cost controlling strategy	total cost ratio	-0.028 (0.144)	-0.046 ** (0.012)	-0.029 (0.159)	-0.041 *** (0.004)	-0.058 *** (0.000)	-0.041 *** (0.005)	-0.049 *** (0.003)	-0.084 *** (0.000)	-0.057 *** (0.003)
4.capital adequacy level strategy	total capital ratio	14.879 (0.138)	16.385 (0.102)	20.062 * (0.073)	16.047 * (0.080)	15.386 * (0.069)	20.770 * (0.061)	29.513 * (0.076)	21.389 ** (0.049)	37.459 ** (0.029)
	Tier1 capital ratio							-8.828 (0.199)		-16.917 (0.371)
	BIS standard									26.911 (0.219)
5.liquidity risk strategy	liquidity ratio	-5.173 (0.190)	-5.591 (0.162)	-10.595 ** (0.021)	-2.354 (0.404)		-7.464 * (0.064)			-6.842 (0.314)
6.technology and innovation strategy	R&D(The standard deviation of cash equipment cost ratio	0.282 (0.331)	0.508 * (0.053)	0.346 (0.226)	0.377 * (0.051)	0.605 *** (0.005)	0.449 ** (0.016)	0.510 (0.115)	0.328 (0.430)	1.079 *** (0.000)
	controll variables	InAsset	-0.338 (0.174)	-0.300 (0.244)	-0.320 (0.269)	-0.243 (0.204)	-0.214 (0.290)	-0.229 (0.360)	-0.942 ** (0.050)	
intercept	ROA					-20.785 (0.297)	-17.364 (0.431)	-32.373 (0.120)		-28.770 (0.182)
		11.931 *** (0.009)	11.689 ** (0.012)	15.436 *** (0.005)	6.853 ** (0.033)	4.932 (0.110)	10.224 * (0.053)	5.547 * (0.092)	12.607 ** (0.030)	10.619 (0.118)
Country Dummies	Indonesia								-4.301 ** (0.011)	-4.173 ** (0.036)
	Singapole								-2.524 *** (0.008)	-2.702 * (0.079)
	Thailand								-1.965 ** (0.016)	-0.807 (0.349)
	philippines								-5.902 ** (0.023)	-5.969 ** (0.040)
	Malaysia								-1.542 (0.245)	
	Korea								-1.751 (0.189)	
	HongKong									1.686 (0.294)
	Chaina								-1.108 (0.413)	1.549 (0.282)
n	138	138	138	138	138	138	175	138	175	
R2	0.106	0.107	0.105	0.105	0.111	0.095	0.161	0.195	0.253	

(*)***: significant at 1%, **: significant at 5%, *: significant at 10%

(Table 8) The cross-sectional results in alliance targets

alliance. target	AR calculation term	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		[-5 +1]	[-5 +2]	[-5 +3]	[-2 +1]	[-2 +2]	[-2 +3]	[-2 +1]	[-2 +1]
variables		coefficient	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
1.earning diversification strategy	Other industry Dummy	3.654 (0.271)	3.964 (0.247)	3.566 (0.280)	2.640 (0.370)	2.873 (0.354)	2.484 (0.398)	3.006 (0.239)	1.195 (0.450)
	Cross border Dummy	5.651 ** (0.038)	5.977 ** (0.033)	6.488 ** (0.018)	5.748 ** (0.024)	6.069 ** (0.022)	6.581 *** (0.010)		1.759 (0.183)
2.risk strategy	Credit risk							-20.291 (0.153)	-21.977 * (0.061)
	loans ratio	54.108 ** (0.040)	57.113 ** (0.035)	52.676 * (0.056)	50.431 ** (0.031)	60.155 ** (0.031)	55.069 ** (0.019)	29.125 (0.316)	34.736 ** (0.011)
	deposit-loans ratio	-10.317 (0.155)	-11.143 (0.108)	-6.199 (0.396)		-5.385 (0.437)		-29.741 *** (0.005)	-12.532 ** (0.047)
3.cost controlling strategy	total cost ratio	0.842 *** (0.001)	0.839 *** (0.001)	0.811 *** (0.001)	0.842 *** (0.000)	0.839 *** (0.000)	0.811 *** (0.001)	0.777 *** (0.000)	0.574 *** (0.004)
4.capital adequacy level strategy	total capital ratio	29.731 (0.141)	32.756 * (0.088)	24.868 (0.230)	12.783 (0.250)	24.159 (0.188)	15.465 (0.170)	34.323 (0.119)	
5.liquidity risk strategy	liquidity ratio	19.609 (0.323)	20.891 (0.309)	21.883 (0.294)	24.975 (0.231)	27.523 (0.203)	28.390 (0.182)	-28.461 (0.194)	
6.tecnology and innovation strategy	R&D(The standard deviation of cash flows)	6.283 ** (0.023)	5.998 ** (0.035)	5.849 ** (0.035)	5.155 ** (0.038)	5.108 * (0.060)	4.936 ** (0.050)	11.654 *** (0.000)	7.093 *** (0.001)
	equipment cost ratio	0.297 (0.399)	0.367 (0.312)	0.359 (0.335)					
controll variables	InAsset	-5.281 ** (0.034)	-5.046 ** (0.048)	-5.180 ** (0.038)	-4.720 ** (0.038)	-4.657 * (0.058)	-4.775 ** (0.037)	-9.933 *** (0.000)	-6.165 *** (0.004)
	ROA	-86.744 (0.155)	-77.183 (0.191)	-68.573 (0.229)	-66.091 (0.226)	-61.414 (0.270)	-52.335 (0.317)		-42.182 (0.362)
intercept		-41.854 ** (0.037)	-44.072 ** (0.031)	-42.221 ** (0.044)	-44.790 ** (0.033)	-48.824 ** (0.024)	-46.799 ** (0.026)	25.034 (0.292)	0.042 (0.997)
Country Dummies	Japan								-7.724 * (0.067)
	Indonesia							-15.375 *** (0.001)	-11.989 ** (0.020)
	sri lanka							2.934 (0.250)	
	Thailand							-3.367 (0.268)	
	philippines							-24.215 *** (0.000)	-13.603 *** (0.005)
	Malaysia							-4.591 ** (0.040)	-6.145 ** (0.018)
	Korea							-16.990 *** (0.000)	-12.289 *** (0.005)
	Hong Kong							-14.283 ** (0.015)	-11.518 ** (0.037)
	Taiwan							-14.247 *** (0.000)	-8.480 ** (0.041)
Chaina							-15.472 (0.000)	-13.367 (0.006)	
n		63	63	63	63	63	63	63	94
R2		0.710	0.706	0.694	0.692	0.694	0.686	0.808	0.652

(*1)***: significant at 1%, **: significant at 5%, *: significant at 10%

(*2)Eq(8) was omitted the equipment ratio from variables

(Table 9) The cross-sectional results in M&A acquirers

M&A, acquiror	AR calculation term variables	(1)		(2)		(3)		(4)		(5)	
		[-5,+1]BISadjusted coefficient	[-5,+1] coefficient	[-5,+2]BISadjusted coefficient	[-5,+2] coefficient	[-5,+3]BISadjusted coefficient	[-5,+3] coefficient	[-2,+2]BISadjusted coefficient	[-2,+2] coefficient	[-2,+2]BISadjusted coefficient	[-2,+2] coefficient
1.earning diversification strategy	the other operational income ratio	-66.891 (0.334)	-53.483 (0.252)	-63.458 (0.357)	-36.774 (0.446)					-87.850 (0.337)	-53.420 (0.312)
	Other industry Dummy	0.631 (0.412)	0.472 (0.419)	0.783 (0.364)	0.623 (0.341)	1.181 (0.170)	0.777 (0.247)			1.076 (0.145)	0.673 (0.220)
	Cross border Dummy	-0.933 (0.116)	-0.894 * (0.075)	-0.829 (0.188)	-0.811 (0.129)			-0.869 * (0.074)	-0.955 ** (0.018)	-0.624 (0.300)	-0.733 (0.130)
	Credit risk							-0.214 (0.327)	-0.159 (0.428)		
2.risk strategy	loans ratio				2.292 (0.489)	3.850 (0.395)	3.608 (0.291)	6.729 ** (0.037)	4.111 * (0.084)		
	deposit-loans ratio	3.005 (0.116)	2.014 (0.193)	3.701 (0.116)	2.620 (0.164)	3.060 (0.219)	1.438 (0.489)	2.930 (0.147)	3.339 ** (0.031)	4.141 ** (0.031)	3.050 * (0.061)
	total cost ratio	-0.008 *** (0.005)	-0.007 *** (0.001)	-0.009 *** (0.002)	-0.009 *** (0.000)	-0.011 *** (0.000)	-0.011 *** (0.000)	-0.007 *** (0.000)	-0.008 *** (0.000)	-0.039 (0.286)	-0.035 (0.160)
4.capital adequacy level strategy	total capital ratio	-14.156 *** (0.006)	-11.730 *** (0.004)	-16.523 *** (0.006)	-12.993 *** (0.005)	-14.646 ** (0.025)	-9.002 * (0.084)	-7.198 (0.205)	-8.792 ** (0.036)	-11.520 ** (0.025)	-12.578 *** (0.004)
	Tier1 capital ratio					-16.574 (0.411)		-14.860 (0.290)		-21.624 (0.228)	
	BIS standard					12.969 (0.385)		14.795 (0.189)		18.312 (0.242)	
5.liquidity risk strategy	liquidity ratio	6.862 ** (0.018)	4.046 (0.150)	7.638 ** (0.025)	6.558 (0.160)	8.882 (0.128)	5.420 (0.273)	13.826 *** (0.001)	10.556 *** (0.003)	6.005 * (0.059)	4.145 (0.165)
6.tecnology and innovation strategy	R&D(The standard deviation of cash flows)									-0.173 (0.455)	
	equipment cost ratio									0.588 (0.446)	0.577 (0.282)
controll variables	lnAsset									-0.152 (0.308)	
	ROA	71.943 ** (0.033)	45.092 (0.266)	73.498 ** (0.047)	41.437 (0.368)	71.601 * (0.074)	35.109 (0.453)	18.375 (0.250)		66.186 * (0.099)	45.640 (0.252)
intercept		-2.643 (0.280)	-1.037 (0.607)	-3.185 (0.268)	-3.655 (0.384)	-6.788 (0.191)	-4.118 (0.334)	-9.731 *** (0.006)	-5.055 (0.154)	-3.615 (0.203)	-2.512 (0.210)
Country Dummies	Japan									2.045 (0.056)	1.430 (0.122)
	Indonesia									4.917 *** (0.057)	2.746 (0.153)
	Korea										2.246 ** (0.030)
	Hong Kong									-0.933 *** (0.429)	
	Taiwan										-0.972 (0.279)
n		191	240	191	240	191	240	191	240	191	240
R2		0.100	0.067	0.094	0.063	0.082	0.041	0.083	0.070	0.169	0.112

(*1)***: significant at 1%, **: significant at 5%, *: significant at 10%

(Table 10) The cross-sectional results in M&A targets

M&A, target	AR calculation term	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		[-5,+1]	[-5,+2]	[-5,+3]	[-2,+1]	[-2,+2]	[-2,+3]	[-2,+3]
variables		coefficient	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
1,earning diversification strategy	the other operational income ratio	-698.405 (0.242)	-687.775 (0.253)	-666.717 (0.225)	-832.209 (0.168)	-896.233 (0.181)	-797.447 (0.150)	-1289.988 ** (0.026)
	Other industry Dummy	-3.566 (0.313)	-3.426 (0.331)	-2.788 (0.407)	-4.638 (0.169)	-4.654 (0.194)	-3.828 (0.227)	-7.357 ** (0.041)
	Cross border Dummy				-2.072 (0.285)	-1.835 (0.333)	-1.969 (0.289)	
2,risk strategy	Credit risk							170.386 ** (0.025)
	loans ratio	30.721 (0.419)	29.661 (0.437)	37.113 (0.299)	34.942 (0.350)	32.372 (0.383)	41.164 (0.248)	98.576 ** (0.043)
	deposit-loans ratio	0.507 *** (0.000)	0.525 *** (0.000)	0.490 *** (0.000)	0.632 *** (0.000)	0.674 *** (0.000)	0.616 *** (0.000)	
3,cost controlling strategy	total cost ratio					0.091 (0.492)	0.292 (0.312)	
4,capital adequacy level strategy	total capital ratio	17.395 (0.340)	14.708 (0.422)	14.451 (0.413)	18.008 (0.303)	14.280 (0.413)	15.053 (0.363)	-32.158 * (0.065)
5,liquidity risk strategy	liquidity ratio	61.797 (0.393)	61.835 (0.395)	67.373 (0.323)	65.891 (0.356)	63.342 (0.370)	71.252 (0.289)	116.441 * (0.066)
6,tecnology and innovation strategy	R&D(The standard deviation of cash flows)							3.618 (0.379)
	equipment cost ratio	-0.887 (0.154)	-1.028 * (0.096)	-1.122 ** (0.049)	-0.985 (0.143)	-1.251 (0.102)	-1.208 * (0.059)	6.183 (0.450)
controll variables	lnAsset							4.288 (0.150)
intercept		-32.621 (0.457)	-31.630 (0.472)	-38.807 (0.347)	-35.521 (0.407)	-33.054 (0.438)	-41.599 (0.308)	-149.838 ** (0.039)
Country Dummies	Japan							-18.891 *** (0.011)
	India							-7.074 *** (0.216)
	Thailand							-21.994 *** (0.004)
	Malaysia							-10.125 *** (0.258)
	Korea							-30.282 *** (0.012)
	Hong Kong							-8.991 *** (0.050)
	China							-33.997 (0.001)
n		53	53	53	53	53	53	53
R2		0.2223	0.2215	0.2335	0.2948	0.2959	0.3117	0.6473

(*1)***: significant at 1%, **: significant at 5%, *: significant at 10%

(Table 11) The cross-sectional country's dummy variables results in alliance acquirers

Alliance, acquirers

Modified Eq(8),Table7;[-2,+2]

	(a)	(b)	(c)	(d)	(e)
	coefficient	coefficient	coefficient	coefficient	coefficient
Restrictions on banks activity index	-0.3287 * (0.055)			-0.3635 * (0.062)	
Entry into banking requirements index		-0.0326 ** (0.028)		-0.0191 (0.143)	-0.0393 *** (0.007)
Privatemonitoring index			0.1653 ** (0.030)		0.1846 ** (0.024)
n	175	159	172	159	159
R2	0.1368	0.1608	0.1266	0.1904	0.1818

(*1)***: significant at 1%, **: significant at 5%, *: significant at 10%

(*2)Each regression contain explain variable as table7 equation (8), for the space we omit the similar results.

(*3)Restrictions on banks activity index and Privatemonitoring index show high correlation.