What are the Factors of Banks' M&A Effects : Evidence from Asia-pacific Banks?

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Yoko Shirasu[1]

Abstract

This paper covers Asian stock exchanges to empirically examine market responses to acquisitions announcements, and changes in management strategy made by listed banks from long-term aspects.

The long term results suggest that for cases of acquisition results shows that Asian stock investors over- priced banks stock highest in case of alliance acquisition. And M&A tools appear to be relief methods for unsound banks. Acquires stocks in Asian banks not only grow their size but also proceed risk strategy, however it may be said M&A and cross border acquisitions are a huge burden.

The DID results suggest that by strong legal protection and strict regulatory protection about bank entering, bank can reduce their non-performing loans and become sound banks. And interestingly, private monitoring regulation systems country's acquirer banks promote earing diversification strategy, in spite of bank activities regulation system country's acquirer banks cannot present distinct results. The courtiers whom had high rating and adapted private monitoring regulations systems tend to hold high Tier 1 capital ratio, they make efforts to obtain good global reputations.

JEL Codes: G34, G21 and G15
Key word: Asian Bank M&A, Strategy, Long term, Alliance, Regulation

[1] Professor, Faculty of Economics at Aoyama Gakuin University. e-mail: shirasu@cc.aoyama.ac.jp
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1. INTRODUCTION

Since the 1990s, most large Asian and European financial institutions have aggressively promoted alliances and M&A within Asian financial markets. Asian financial institutions just followed their own global client firms where client firms expand their business place. However recently, the business strategies of such financial institutions have changed and they promote strategic business for themselves not for clients, in response not only to M&A but also 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, from long-term aspects. We examine the strategic management factor as performed in Altunbas and Marques (2008). And for the short term investments, we explain the cross-border effect by testing whether cross-border country characteristics are related to bank returns.

The long term results, first, suggest that banks wealth effects from acquisitions need long terms from announcements at least three years and the evaluation about alliance is obviously far different form short term results. Acquires stocks are significantly over-priced in domestic, diversification and alliance acquisition. And after three years affects acquires in Asian banks grow their assets and restore the soundness of their bank lending. And though alliance, acquires banks grow its capital more soundness.

The long term DID (Difference In Difference estimation) results suggest that DID results suggest that six kinds of strategies don't effects at all for long term. And the promotion or demotion of every bank's acquisitions strategy is widely difference among legal systems and regulation systems. If we know the legal and regulation system for acquisition banks countries, we would understand which strategies are advantages and which strategy are disadvantage. The courtiers whom adapted English origin legal system and entry into banking requirements regulations systems tented to solute credit risk problems, tend to become being sound banks, with or without diversification. We may say that for the long term investment views in the 2000s, by strong legal protection and strict regulatory protection about bank entering, bank can reduce their non-performing loans and become sound banks.

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. 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.

2. LITERATURE

We now present below a survey of studies on market evaluation in M&A.

Many studies have been conducted on financial conglomerates. Laeven and Levine(2007) find the diversification discount in financial conglomerate. They find that the Tobin's Q of financial conglomerates that have engaged in multiple activities is lower than specialize in the individual activities banks. And more detailed analysis, Baele et al. (2007) find that the relationship between diversification and bank returns is different in Europe relative to other developed markets, notably the U.S. They find a positive relationship between franchise value and the degree of functional diversification. Artikis et al. (2008) offer an intuitive explanation for the market dynamics of and incentives for 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." Recently, increased monitoring allows lower capital requirements for financial conglomerates. Recently, the focus of research is not only diversifications but also cross-border bank M&A activities. As comprehensive empirical literature research of cross-border bank M&A is shown in Caiazza et al.(2012), many studies reveal that banks are likely to integrate over-seas banks are stronger, however Caiazza et al.(2012) empirically find support for the "acquire to restructure" hypothesis which posits targets are typically less efficient banks that are acquired to be restructured and made more profitable.

A wide variety of empirical studies have examined the firm value of financial conglomerates. 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. 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. Bank-bidders appear to earn a significant positive return after an event's announcement. 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. 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. They find that profitability, like ROA, seems to affect the firm value of only insurance companies, not that of intermediaries or securities firms.

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 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 Schllingmann (2005), and Fauver et al. (2003) empirically show that differences in nationality, legal and market systems, regulatory systems, and bidder/target maturity vary according to firm value. Steigner and Sutton(2011) shows greater cultural distance has appositive influence on the long term performance. 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. And some literature shows the evidence that regulatory and cultural barriers limit the international expansion of banks (e.g., De Haas and Van leyeveldt (2010)), more profitable and larger banks find it easier to overcome such barriers (Calzolari and Liranth(2011), proposed policy measures to increase supervision of banks' international activities (Ongena et al.(2013)).

Finally 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.

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 acquisitions by listed banks are announced?

Discussion 2: what are the strategic purposes of banks acquisitions in Asia? What strategic factors have impacts acquisitions? 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 (see Appendix 1). All sample transactions have a dollar value and announcement and completion data.

All 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 event sample comprises 1907 bank transactions. Either the acquirer or target have a regular common stock listing on Asian-Pacific stock markets and have accounting data based on dollar values. In this long analysis, we employ completed -transactions of bank M&A.

The market index data, consisting of every company's listed geographic stock market index, are obtained from the DataStream, composed of the SMCI WORLD Index, KENNETH FRENCH[2] Asia-Pacific Index and each Asian market index (see Appendix 1).

The SMB and HML index data, using of MSCI BIG index, MSCI SMALL index, MSCI VALUE index and MSCI GROWTH index and KENNETH FRENCH SMB/HML Asia-Pacific Index. For the WML index data, using KENNETH FRENCH WML Asia-Pacific Index. The risk-free rates data, consisting of every company's geographic government bond 10-year or 5-year rates, are obtained from the DataStream (see Appendix 1).

We use PPP based on GDP growth rates taken from the Penn World Table[3], countries' credit ratings obtained from S&P long term foreign currency sovereign rating and legal systems obtained from La Porta et al.(1997), Fauver et al. (2003) and Beck et al. (2003). Additionally, we employ country's EFW index[4], obtained from Moeller et al. (2005)[5]. Barth et al.(2008) deriver the available dataset of bank regulatory environment by the World Bank Website[6], we use it.

4.2 CTPR: long term analysis

In discussion 1 for long term analysis, our econometric study's methods are based on a calendar time portfolio regressions (CTPR). While the stock market reacts to new information and does so fairly quickly, there is some evidence of poor in stock prices. Capital market players may need the time to revise their judgments based on new information about the acquisition integration and response of

[2] Kenneth R. French's Web Site, "Data Library".
http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

[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] Moeller et al. (2005) has obtained EFW index from the World Bank.

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

rivals. This implies that the wealth effects from acquisitions may need to be assessed over long-run event windows. The windows we used one and three years after announcements and used methodologies implied are CTPR. The CTAR is then given by the universal average of all mean monthly abnormal return observations.

We also estimate monthly abnormal returns for a period of one and three years following the acquisition announcement using CTPRs of the following form,

$$R_{pt} - R_{ft} = \alpha_t + \beta_i \left(R_{mt} - R_{ft} \right) + S_p SMB_t + h_p HML_t + \varepsilon_{it}$$

where $R_{pt} - R_{ft}$ is the equally-weighted, monthly calendar time portfolio excess return and the independent variables are MSCI index of world. we test the α_t using the t-test.

And to adjust the local market index with market index, MSCI WORLD index, we estimate another form shown by Pratt and Grabowski(2010) as below.

$$R_{pt} - R_{ft} = \alpha_t + \beta_i \left(R_{mt} - R_{ft} \right) \times \frac{\sigma_{locali}}{\sigma_{world}} + S_p SMB_t + h_p HML_t + \varepsilon_{it}$$

where σ_{locali} is the volatility of ith country's local market index return, and σ_{world} is the volatility of MSCI WORLD index return.

Additionally to use Asian index, we estimate four factor form as below.

$$R_{pt} - R_{ft} = \alpha_t + \beta_i \left(RKT - RF \right)_t + S_p SMB_t + h_p HML_t + w_p WML_t + \varepsilon_{it}$$

where the independent variables are KENNETH FRENCH Asia-Pacific index.

4.3 Before and After Comparison: long term analysis

For discussion 2 and 3 for long term analysis, we regression analyze using before and after comparison estimations (BAC), 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 set the independent variables shown by Appendix 2. The strategic variables after one year or three year values, post- acquisitions, after acquisitions with trend dummy one are set and same strategic variables just before acquisitions values, pre- acquisitions, with trend dummy zero are set. We regression analyze the independent variables are post- and pre- every strategic variables and dependent variables are intercept term and trend dummy variable. We assess the significance of coefficient of trend dummy variables.

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 same strategic accounting variables used in Altunbas and Marques (2008). We

present six strategic variables along with their proxy variables in the bank industry case, as seen in Appendix 2. We explain a little 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 another variable is 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.

4.4 Difference in Difference Methods

In difference in difference estimation (DID) methods, it is better to employ group data similar to treatment group's outcome distributions[7]. We set all Asian listed bank's data as treatment group, and all M&A transactions as control group. We adapt Altunbas and Marques' (2008) strategic variables to this research. The Econometric model is below.

$$StrategicVariable_{it} = \alpha_0 + \alpha_1 \left(Time\right)_{it} + \alpha_2 \left(Trend\right)_{it} + \alpha_3 \left(Trend \times Time\right)_{it} + \varepsilon_{it}$$

where, $StrategicVariable_{it}$ is the Altunbas and Marques' (2008) every strategic variable, $Time_{it}$ is year dummy, if pre-acquisition are zero and post one year or three year acquisitions are one, $Trend_{it}$ is dummy variable if acquisitions data are one, non-acquisitions data are zero and $Trend \times Time$ is cross term. We hope to assess whether good effects of acquisitions or not, then we test the sign and significant of coefficients of cross terms.

5. SAMPLE DESCRIPTION

Graph 1 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%), consumer credit business (9.33%), securities (7.28%), investment advisory services (6.93%) and life insurance (6.04%). 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

[7] See Meyer(1995)

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 1 about here.)

Table 1 presents the means for alliance transactions and compares them with the means for M&A transactions for both acquirers and targets.

(Insert Table 1 about here.)

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

We empirically examine the long term effects, using CTPR econometric methods. In this analysis, we use

The results of the empirical analyses for all data are shown in Table 2, which is acquiring cases, and Table 3, which are targeted cases, we have to check the statically signification of intercept

variables (shown “Intercept). We conduct five kinds of analyses, 12 month effects, 36 12month effects, market adjusted 12month /36 month effects, KENNETH FRENCH Asia-Pacific four index 12month /36month effects, and every country effects.

We check the statically signification of intercept variables in Table 2 for acquirers’ banks. There is little difference between non- market adjusted results and market adjusted results. While in non-market adjusted cases and market adjusted cases, there is no significant results of intercept coefficient, KENNETH FRENCH Asia-Pacific four index cases, domestic and alliance cases are significantly positive. In cases of KENNETH FRENCH Asia-Pacific four index, domestic case is positively in 12month, alliance case is positively both in 12month and in 36month. We can say that for acquires cases for long term investments, players price banks stock highest in case of alliance acquisition, second higher cases of domestic acquisition. For alliance, 36month results is stronger significant (5%level) than 12month results (10%level). Surprisingly, diversification / M&A acquisition show non-significant for all long term investment cases, it is the different result of short term analysis (Shirasu 2013). Indonesia, India, Malaysia and Vietnam acquisition are priced higher than other Asian countries’. Those countries have the “Master Plane” in case of Asian Financial Crisis Era, then the M&A tools appear to be relief methods for unsound banks, so that we consider stock market’s investors welcome government relief.

(Insert Table 2 about here.)

We check the statically signification of intercept variables in Table3 for targets’ banks. There is little difference between non market adjusted results, market adjusted results and KENNETH FRENCH Asia index results. There is no significant case at all. India, Philippines and Thailand targets are priced higher than other Asian countries’.

(Insert Table 3 about here.)

In summary, view from long term respects, the market performance reach a clear conclusion, for cases of acquisition results shows that Asian stock investors over- priced banks stock highest in case of alliance acquisition. And investor favorite relatively long term investments, three years, and M&A tools appear to be relief methods for unsound banks. However, stock market investors priced neutral for target banks. This results are far different from short term results (Shirasu2013).

6.2 Discussion 2: Strategic factors

We empirically examine the six strategic management factors introduced by Altunbas and

Marques (2008) adding some control variables, the dependent 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.

From Table 4 to table 6 presents the results of the long term before and after comparison results, the post one year or three year term. In Table 4, shown the results of results for after one year acquirers, there are mostly no significant variables (treatment variables) without one significant result of reducing risk2 (non-performing loan ratio) ratio in M&A cases, comparing with before and after affects.

(Insert Table 4 about here)

However, Table5 results for after one year targets, risk2 (non-performing loan ratio) show negative in alliance cases and diversification cases, then we can say that banks can reduce their non-performing loans by being affiliated by other banks or being diversified their business, instead of reducing loan ratio (deposit-loan ratio). In M&A cases, present positively significant for Q ratio, target banks are grow stronger that may be helped your management by M&A tools. And surprisingly, in cross border case, two kinds of cost ratios (total cost ratio, R&D cost) show positive significantly, it means that cross border acquisitions may needs huge total cost and IT cost.

(Insert Table 5 about here)

However, in Table 6, shows the results of post three years effects of acquirers, there are some significant results for some treat variables. All size factors show positive and almost credit risk1 (provisions ratio) and credit risk2 (non-performing loan ratio) show negative. Acquires in Asian banks reduce their credit risk, in alliance and diversification case the effects are bigger, especially Tier capital is increasing in alliance and diversification case. Additionally, only in alliance case the equipment cost ratio decreasing. In M&A case, banks becoming sound as other cases, however reduce their BIS international standard level and Q ratio, it means that although if banks become being growing healthy a little by cross border acquisition, however banks cannot easily raise their BIS international standard level and stock markets do not evaluate it. And in M&A cases Q ratio is decreasing, it is similar to cross border cases, then it may be said M&A and cross border acquisitions are a huge burden for Asian banks.

(Insert Table 6 about here)

In short, after three years affects acquires in Asian banks grow their assets and restore the

soundness of their bank lending. And though alliance, acquires banks grow its capital more soundness and cost efficiency.

Although, in M&A and cross border case, the sign of Q ratio present show negative significantly. Especially the coefficient value of M&A is biggest and the cross border is second, and it may be said that acquires Asian banks constitute a burden for M&A of cross border acquisitions. Interestingly, target Q ratio is growing adversely, and it may be the bank wealth is translated from acquired-banks to targeted-banks in cases of M&A. In short, in long time aspects, acquires in Asian banks not only grow their size but also proceed risk strategy to them to restore the soundness of their bank lending, but it may be said M&A and cross border acquisitions are a huge burden for Asian banks.

6.3 Discussion 3: Characteristics of Asian countries

6.3.1 Long Term Investment Results including Characteristics

The goal of this section is to examine whether adding country characteristics dummies helps to further explain the long term acquisition effect by testing whether country characteristics are related to bank returns. First, we check the relationship between bank returns and countries' credit ratings, obtained from S&P long term foreign currency sovereign rating. Second, we check the difference of legal systems. Rossi and Volpin (2004), Moeller et al. (2005) and Fauver et al. (2003) empirically show that M&A returns differ according to differences in nationality and legal systems. Although Fauver et al. (2003) empirically show that French origin legal system (civilian law system) has the greater magnitude than England origin legal system (common law system), 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. We check the relationship between bank returns and legal systems. The English origin legal system, with its common law origin and providing investors with strongest legal protection, adversely, French origin legal system, civilian law origin and providing the least protection. Fourth, we check the impacts of regulatory barriers. Barth et al. (2001, 2004, 2008) empirically show the difference between broad array of bank regulations and supervisory practice (see Appendix2) and bank development, performance and stability. We focus on restrictions on bank activities regulation (Barth_bk), entry into banking requirements regulations (Barrth_ compfor) and restrictions on bank activities regulation (Barth_bk) and entry into banking requirements regulations (Barrth_compfor).

(Insert Table 7 about here)

(Insert Table 8 about here)

From Table 7 to Table 9 presents the short excerpt results of cross- terms' coefficients by strategic factors including country characters from the long term difference in difference analysis results. Table7 shows the results of after one year acquirer including acquired country characters, Table 8 shows results for after three acquirers, and Table 9 shows the results of after one year targets including targeted country characters including country characters. First we consider the both results of Table 7 after one year acquirer and Table 8 three year acquirer. In Table 7 (Table 8 is similar to Table7), comparing with the results of English origin legal system (common law system) and French origin legal system (civilian law system), in English legal system country's acquirer banks demote earning diversification strategy and liquidity risk strategy and promote risk reduce strategy; reducing credit risk2 (non-performing loan ratio) and growing loan ratio, while in French legal system country's acquirer banks adversely demote risk strategy and promote a liquidity risk strategy. The difference of legal system causes the adverse results. The courtiers whom adapted English origin legal system tend to promote risk strategy in spite of sacrificing earning diversification strategy and liquidity risk strategy.

Next, we consider the results of country rating. For risk strategy, it is similar to the results of French origin legal system. However, high rating country's acquirer banks strongly promote global level capital adequacy strategy, especially increasing Tier 1 capital ratio. We may say that high rating country's banks have strong interests about global capital strategy.

Third, we compare with the results of restrictions on bank activities regulation (Barth_bk) and entry into banking requirements regulations (Barrth_compfor). In restrictions on bank activities regulation, country's acquirer banks demote risk strategy, demote capital adequacy strategy and demote liquidity risk strategy. While in entry into banking requirements regulations country's acquirer banks promote risk strategy, promote liquidity risk strategy and grow Q ratio positive adversely. We may say that two kinds of restrictions on bank activities regulations have different effects, although the positive effects of bank activities regulation system is only one that is size growing, however for entry into banking requirements regulation system, acquirer banks promote risk strategy, cost controlling strategy, IT cost strategy and liquidity risk strategy, and grow Q ratio.

Additionally, comparing these regulatory results with private monitoring regulation (Barth_ privatemoni), surprisingly, private monitoring regulation systems country's acquirer banks promote earing diversification strategy, showing positively significant, in spite of bank activities regulation system country's acquirer banks have neutral results about this strategy. The power of private monitoring regulation is stronger, the better operation of bank business diversification creates. And private monitoring regulation systems country's acquirer banks promote global level capital adequacy strategy, especially increasing Tier 1 capital ratio. However, the results about risk strategy are mixed.

Two kinds of credit risk variables show different results and two kinds of loan ratio present different results, too. In restrictions on private monitoring regulation, banks cannot become being sound banks. The reason may be incomplete information disclosure. The incomplete of bank's information disclosure about credit risk strategy is important problems.

Finally, the courtiers whom adapted English origin legal system and restrictions on bank activities regulation and private monitoring regulation systems tented to solute grow their bank size.

For characteristic analysis, mainly we can get significant strategic results about risk strategy, capital adequacy strategy and liquidity risk strategy. The courtiers whom adapted English origin legal system and entry into banking requirements regulations systems tend to become being sound banks. We may say that for the long term investment views in the 2000s, by strong legal protection and strict regulatory protection about bank entering, bank can reduce their non-performing loans and become sound banks. And interestingly, private monitoring regulation systems country's acquirer banks promote earing diversification strategy, in spite of bank activities regulation system country's acquirer banks cannot present distinct results about this strategy. The courtiers whom had high rating and adapted private monitoring regulations systems tend to hold high Tier 1 capital ratio, they make efforts to obtain good global reputations.

(Insert Table 9 about here)

We consider the results of Table 9 after one year targets. There is a few significant results. Mainly we can get significant strategic results about risk strategy, capital adequacy strategy. Similar to acquirer, the courtiers whom adapted English origin legal system and entry into banking requirements regulations systems tend to become being sound banks. And the courtiers whom had high rating and private monitoring regulation systems country's targets banks hold high Tier 1 capital ratio, and tend to expand global capital strategy. Only the private monitoring regulation systems country's target banks promote liquidity risk strategy.

In short, from long term aspects, the promotion or demotion of every strategy is widely difference among legal systems and regulation system and each combination. Say it another way, if we know the legal and regulation system for acquisition banks countries, we would understand which strategies are advantage and which strategy are disadvantage.

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, from long-term aspects. We examine the strategic management factor as performed in Altunbas and Marques (2008). And for the short term investments, we explain the cross-border effect by testing whether cross-border country characteristics are related to bank returns.

The long term results, view from long term respects, for cases of acquisition results shows that Asian stock investors over- priced banks stock highest in case of alliance acquisition. And investor favorite relatively long term investments, three years, and M&A tools appear to be relief methods for unsound banks. However, stock market investors priced neutral for target banks.

And from the results of before and after comparisons, in long time aspects, acquires in Asian banks not only grow their size but also proceed risk strategy to them to restore the soundness of their bank lending, however it may be said M&A and cross border acquisitions are a huge burden for Asian banks.

Finally, the DID results suggest that six kinds of strategies don't effects at all for long term. And the promotion or demotion of every bank's acquisitions strategy is widely difference among legal systems and regulation systems. Mainly we can get significant strategic results about risk strategy, capital adequacy strategy and liquidity risk strategy. We may say that for the long term investment views in the 2000s, by strong legal protection and strict regulatory protection about bank entering, bank can reduce their non-performing loans and become sound banks. And interestingly, private monitoring regulation systems country's acquirer banks promote earing diversification strategy, in spite of bank activities regulation system country's acquirer banks cannot present distinct results about this strategy. The courtiers whom had high rating and adapted private monitoring regulations systems tend to hold high Tier 1 capital ratio, they make efforts to obtain good global reputations.

This study has considered some issues that have remained unexamined. We comprehensively investigate the differences among Asia's culture, language, regulatory system and economics for more detailed analysis. And we must have to analyze more detailed target issues. Furthermore, we have to consider the effects of Asian stock market's liquidity and global financial crisis.

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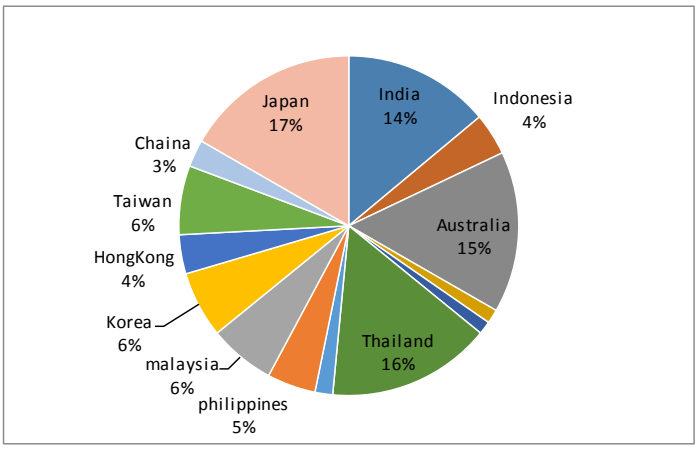
(Graph 1) The share of acquirer and target countries

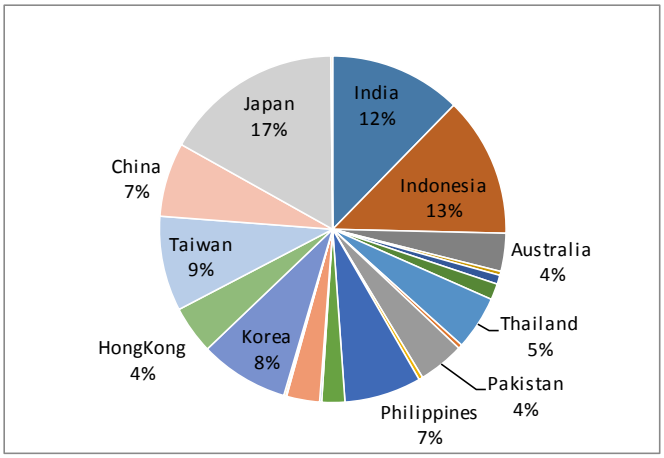
Panel A shows the acquirer share and Panel B shows the target share.

Panel A) Acquirers



Top five industries of counterpart	%
Bank	35.35
Consumer credit	9.33
Securities	7.28
Investment advisory services	6.93
Life insurance	6.04

Panel B) Targets



Top five industries of counterparty	%
Bank	54.29%
Other investment	21.36%
Investment advisory services	4.29%
Securities	3.45%
Life insurance	2.89%

(Table 1) Univariate statistics.

This table presents the means for alliance/ M&A transactions for both acquirers and targets.

		Alliance		M&A	
		Acquirer	Target	Acquirer	Target
	Abnormal return	0.408	2.130	0.497	1.729
1. Earning diversification strategy	The other operational income ratio	0.005	0.008	0.004	0.004
	Other industry dummy	0.779	0.737	0.634	0.426
	Cross border dummy	0.209	0.410	0.175	0.298
2. Risk strategy	Bad loan ratio	0.066	0.068	0.047	0.070
	Loans ratio	0.701	0.659	0.692	0.705
	Deposit-loan ratio	1.021	0.868	0.999	0.951
3. Cost control strategy	Total cost ratio	5.085	6.153	3.035	6.114
4. Capital adequacy level strategy	Total capital ratio	0.143	0.085	0.140	0.122
5. Liquidity risk strategy	Liquidity ratio	0.229	0.273	0.242	0.241
6. Technology and innovation strategy	R&D (standard deviation of cash flows)	8.650	7.364	8.641	7.080
	Equipment cost ratio	0.289	−0.019	0.071	0.053
7. Control variable	lnGDP (per capital)	9.131	8.966	9.505	9.364
	GDP growth	8.104	9.299	7.665	8.168
	ROA	0.497	−0.039	0.658	−0.214
	lnasset	10.746	9.400	10.765	9.119

(Table 2) The CTPR results in acquirers

PanelA: 12month,

	(1)all	(2)cross border	(3)domestic	(4)diversificatior	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.2187 ***	0.2469 **	0.2020 ***	0.1730 **	0.1584 **	0.2162 **
	(0.001)	(0.039)	(0.004)	(0.033)	(0.049)	(0.011)
SMB	0.3538 **	0.6911 **	0.3020 **	0.5112 ***	0.3298 *	0.3655 *
	(0.014)	(0.013)	(0.049)	(0.005)	(0.066)	(0.053)
HML	−0.2480 *	−0.3267	−0.2179	−0.2176	−0.3955 **	−0.2223
	(0.077)	(0.242)	(0.145)	(0.216)	(0.025)	(0.226)
Intercept	0.3192	−0.8260	0.4420	0.3306	0.0268	0.5564
	(0.306)	(0.164)	(0.185)	(0.400)	(0.945)	(0.175)
n	152	137	152	152	151	152
adjusted r2	0.1471	0.0992	0.108	0.1049	0.0878	0.0897

12month, adjusted market index

	(1)all	(2)cross border	(3)domestic	(4)diversificatior	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.1570 ***	0.1893 **	0.1429 ***	0.1166 **	0.1126 **	0.1606 ***
	(0.000)	(0.015)	(0.003)	(0.036)	(0.024)	(0.007)
SMB	0.3588 **	0.6759 **	0.3142 **	0.5262 ***	0.3373 *	0.3602 *
	(0.012)	(0.015)	(0.039)	(0.004)	(0.057)	(0.056)
HML	−0.2262	−0.2842	−0.1998	−0.2038	−0.3700 **	−0.2247
	(0.105)	(0.307)	(0.182)	(0.248)	(0.035)	(0.220)
Intercept	0.3510	−0.7243	0.4491	0.3311	0.0570	0.5766
	(0.259)	(0.223)	(0.178)	(0.399)	(0.884)	(0.159)
n	152	137	152	152	151	152
adjusted r2	0.1567	0.1104	0.1111	0.1039	0.0952	0.0938

12month, FF Asia four index

	(1)all	(2)cross border	(3)domestic	(4)diversificatior	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.2031 ***	0.3294 ***	0.1827 ***	0.2000 ***	0.1798 ***	0.1925 ***
	(0.000)	(0.001)	(0.001)	(0.002)	(0.006)	(0.005)
SMB	0.1941 *	0.0974	0.1688	0.2138	0.1814	0.1412
	(0.091)	(0.659)	(0.170)	(0.140)	(0.207)	(0.350)
HML	0.0257	−0.0372	0.0102	0.0493	−0.1252	0.0555
	(0.813)	(0.864)	(0.930)	(0.720)	(0.360)	(0.699)
WML	−0.0618	−0.0711	−0.0616	−0.0881	0.0884	−0.1363
	(0.441)	(0.643)	(0.474)	(0.385)	(0.380)	(0.198)
Intercept	0.4971	−0.5831	0.6198 *	0.6309	0.1857	0.7829 *
	(0.125)	(0.345)	(0.075)	(0.124)	(0.648)	(0.068)
n	152	137	152	152	151	152
adjusted r2	0.1587	0.1109	0.118	0.111	0.0946	0.0954

PanelB: 36month,

	(1)all	(2)cross border	(3)domestic	(4)diversificatior	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.2495 ***	0.3029 ***	0.2354 ***	0.2197 ***	0.2309 ***	0.2640 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
SMB	0.2759 ***	0.2381	0.2853 **	0.3434 **	0.2677 *	0.2798 **
	(0.010)	(0.208)	(0.014)	(0.011)	(0.051)	(0.031)
HML	−0.1513	−0.0158	−0.1480	−0.0497	−0.2891 **	−0.0738
	(0.142)	(0.935)	(0.188)	(0.702)	(0.031)	(0.556)
Intercept	0.2593	0.4648	0.2458	0.2399	0.1704	0.3889
	(0.259)	(0.257)	(0.326)	(0.408)	(0.567)	(0.166)
n	152	150	152	152	152	152
adjusted r2	0.234	0.1074	0.1935	0.1491	0.1541	0.1791

36month, adjusted market index

	(1)all	(2)cross border	(3)domestic	(4)diversificatior	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.1764 ***	0.2064 ***	0.1653 ***	0.1485 ***	0.1615 ***	0.2039 ***
	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)	(0.000)
SMB	0.2922 ***	0.2676	0.3031 ***	0.3660 ***	0.2908 **	0.2765 **
	(0.006)	(0.155)	(0.009)	(0.006)	(0.032)	(0.032)
HML	−0.1301	−0.0065	−0.1257	−0.0320	−0.2463 *	−0.0833
	(0.207)	(0.973)	(0.265)	(0.807)	(0.066)	(0.505)
Intercept	0.2675	0.5042	0.2443	0.2354	0.1869	0.3908
	(0.245)	(0.222)	(0.330)	(0.419)	(0.528)	(0.163)
n	152	150	152	152	152	152
adjusted r2	0.2344	0.1024	0.1906	0.142	0.163	0.1827

36month, FF Asia four index

	(1)all	(2)cross border	(3)domestic	(4)diversificatior	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.2380 ***	0.2655 ***	0.2263 ***	0.2302 ***	0.2493 ***	0.2239 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
SMB	0.0944	0.1206	0.0913	0.1137	0.0758	0.1195
	(0.249)	(0.423)	(0.311)	(0.272)	(0.486)	(0.231)
HML	0.0558	0.0047	0.0415	0.0729	0.0807	0.0095
	(0.474)	(0.974)	(0.628)	(0.460)	(0.436)	(0.920)
WML	−0.0806	−0.0895	−0.0833	−0.0999	0.0389	−0.1632
	(0.160)	(0.397)	(0.188)	(0.169)	(0.610)	(0.020)
Intercept	0.3397	0.5490	0.3570	0.3980	0.1034	0.5947 **
	(0.142)	(0.198)	(0.161)	(0.175)	(0.736)	(0.036)
n	152	150	152	152	152	152
adjusted r2	0.2934	0.1404	0.2397	0.2059	0.176	0.2395

PanelC: intercept of every country (using adjusted market index)

	AUS	CHN	HKG	IDN	IND	JPN	KOR
12M	0.3895	−0.6302	−1.9571	1.5355	3.0736 ***	−0.9332	−0.4374
	(0.353)	(0.636)	(0.299)	(0.282)	(0.004)	(0.128)	(0.742)
36M	0.1579	−0.1276	−0.4004	1.2626 *	2.3320 ***	−0.5670	−0.6556
	(0.595)	(0.901)	(0.652)	(0.075)	(0.000)	(0.208)	(0.337)

	MYS	PHL	SGP	THA	TWN	VNM
12M	−0.0092	0.3475	0.1875	0.6669	−0.7355	4.1342 **
	(0.990)	(0.755)	(0.850)	(0.334)	(0.476)	(0.045)
36M	0.7951 *	0.4689	0.3556	0.7387	−0.2981	0.5380
	(0.074)	(0.523)	(0.506)	(0.137)	(0.667)	(0.699)

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

(Table 3) The CTPR results in targets

PanelA: 12month,

	(1)all	(2)cross border	(3)domestic	(4)diversificatio	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.2538 ***	0.1763	0.2689 ***	0.2948 ***	0.2244 **	0.2604 ***
	(0.001)	(0.180)	(0.001)	(0.000)	(0.013)	(0.007)
SMB	0.1533	0.5515 *	0.0521	0.1216	−0.2227	0.3959 *
	(0.352)	(0.068)	(0.770)	(0.510)	(0.262)	(0.067)
HML	0.0853	0.0605	0.1318	0.0709	0.2099	−0.0331
	(0.606)	(0.842)	(0.462)	(0.702)	(0.298)	(0.878)
Intercept	0.0140	−0.3025	0.0695	−0.0117	−0.1107	−0.0056
	(0.969)	(0.641)	(0.858)	(0.977)	(0.803)	(0.990)
n	151	138	151	151	140	151
adjusted r2	0.0945	0.0463	0.082	0.094	0.0525	0.0853

12month, adjusted market index

	(1)all	(2)cross border	(3)domestic	(4)diversificatio	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.1738 ***	0.1674 *	0.1721 ***	0.1970 ***	0.1437 ***	0.1741 **
	(0.001)	(0.089)	(0.002)	(0.001)	(0.009)	(0.017)
SMB	0.1722	0.5469 *	0.0802	0.1493	−0.1994	0.4135 *
	(0.293)	(0.068)	(0.652)	(0.416)	(0.309)	(0.056)
HML	0.1082	0.1064	0.1515	0.0949	0.2390	−0.0341
	(0.514)	(0.727)	(0.401)	(0.610)	(0.237)	(0.875)
Intercept	0.0279	−0.2598	0.0653	−0.0113	−0.0823	−0.0195
	(0.938)	(0.688)	(0.867)	(0.978)	(0.853)	(0.967)
n	151	138	151	151	140	151
adjusted r2	0.0933	0.0541	0.0731	0.0896	0.0563	0.0762

12month, FF Asia four index

	(1)all	(2)cross border	(3)domestic	(4)diversificatio	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.1318 **	0.1901 *	0.1160 *	0.1496 **	0.0214	0.2094 ***
	(0.030)	(0.085)	(0.078)	(0.028)	(0.774)	(0.008)
SMB	0.3290 **	0.2333	0.3144 **	0.3346 **	0.2249	0.3432 **
	(0.014)	(0.323)	(0.030)	(0.025)	(0.170)	(0.047)
HML	0.0552	0.4518 **	−0.0555	−0.0539	−0.0695	0.0977
	(0.666)	(0.049)	(0.690)	(0.706)	(0.654)	(0.558)
WML	−0.0792	−0.1309	−0.1003	−0.1133	−0.1582	−0.0047
	(0.400)	(0.431)	(0.327)	(0.282)	(0.176)	(0.969)
Intercept	0.1935	−0.1763	0.2980	0.2287	0.0410	0.1421
	(0.610)	(0.794)	(0.470)	(0.590)	(0.930)	(0.774)
n	151	138	151	151	140	151
adjusted r2	0.1087	0.0688	0.0901	0.1118	0.0363	0.0983

PanelB: 36month,

	(1)all	(2)cross border	(3)domestic	(4)diversificatio	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.2048 ***	0.1041	0.2292 ***	0.2629 ***	0.1269 ***	0.2505 ***
	(0.000)	(0.215)	(0.000)	(0.000)	(0.010)	(0.002)
SMB	0.1238	0.3957 **	0.0517	0.0912	−0.0398	0.3222 *
	(0.246)	(0.037)	(0.645)	(0.539)	(0.717)	(0.070)
HML	−0.2192 **	−0.0659	−0.2283 **	−0.2132	−0.1094	−0.2573
	(0.046)	(0.733)	(0.049)	(0.162)	(0.332)	(0.157)
Intercept	0.1680	0.5069	0.0836	0.0991	−0.2483	0.4321
	(0.462)	(0.210)	(0.728)	(0.755)	(0.292)	(0.255)
n	156	156	156	156	156	156
adjusted r2	0.1498	0.0466	0.1505	0.1157	0.0486	0.1071

36month, adjusted market index

	(1)all	(2)cross border	(3)domestic	(4)diversificatio	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.1533 ***	0.0871	0.1636 ***	0.1904 ***	0.1072 ***	0.1969 ***
	(0.000)	(0.177)	(0.000)	(0.000)	(0.001)	(0.002)
SMB	0.1365	0.4035 **	0.0678	0.1128	−0.0356	0.3235 *
	(0.196)	(0.032)	(0.543)	(0.443)	(0.740)	(0.069)
HML	−0.2007 *	−0.0574	−0.2072 *	−0.1905	−0.0861	−0.2593
	(0.066)	(0.767)	(0.073)	(0.211)	(0.440)	(0.154)
Intercept	0.1753	0.5211	0.0848	0.1025	−0.2255	0.4237
	(0.440)	(0.198)	(0.724)	(0.747)	(0.332)	(0.264)
n	156	156	156	156	156	156
adjusted r2	0.1579	0.0484	0.1519	0.1189	0.0742	0.1068

36month, FF Asia four index

	(1)all	(2)cross border	(3)domestic	(4)diversificatio	(5)M&A	(6)alliance
	coefficient	coefficient	coefficient	coefficient	coefficient	coefficient
Market	0.1659 ***	0.1641 **	0.1649 ***	0.1992 ***	0.0766 *	0.2419 ***
	(0.000)	(0.016)	(0.000)	(0.000)	(0.059)	(0.000)
SMB	0.0298	0.0800	0.0501	0.0357	−0.0157	0.0342
	(0.728)	(0.587)	(0.579)	(0.762)	(0.858)	(0.809)
HML	0.0331	0.4217 ***	−0.0568	−0.0231	0.0678	0.0315
	(0.689)	(0.003)	(0.516)	(0.840)	(0.427)	(0.818)
WML	−0.0728	−0.0770	−0.0651	−0.1216	−0.0766	−0.0787
	(0.226)	(0.455)	(0.304)	(0.143)	(0.216)	(0.428)
Intercept	0.2416	0.5050	0.1745	0.2053	−0.1964	0.5506
	(0.324)	(0.230)	(0.499)	(0.543)	(0.435)	(0.174)
n	156	156	156	156	156	156
adjusted r2	0.1481	0.0962	0.1458	0.1298	0.045	0.1131

PanelC: intercept of every country (using adjusted market index)

	AUS	CHN	HKG	IDN	IND	JPN	KOR
12M	−0.9594	0.0513	−0.8449	−1.2486	0.9596	−0.0170	0.1085
	(0.145)	(0.970)	(0.436)	(0.447)	(0.503)	(0.985)	(0.943)
36M	−0.3043	−0.3499	−0.3369	−0.0663	1.8331 **	0.1925	−1.0358
	(0.556)	(0.669)	(0.421)	(0.948)	(0.036)	(0.667)	(0.252)

	MYS	PHL	SGP	THA	TWN	VNM
12M	−1.0795	1.2372	−0.3903	0.6685	0.1858	2.3824
	(0.422)	(0.601)	(0.812)	(0.488)	(0.779)	0.377
36M	−0.4709	2.4682 **	0.0920	0.6396 *	−0.1645	−0.6437
	(0.449)	(0.018)	(0.891)	(0.076)	(0.743)	0.662

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

(Table 4) The before and after comparison results for after one year acquirers

	1. earing	2, risk strategy				3, cost	4, capital adequancy strategy			5, liquidity	6, tecnology	the others		
	the other	credit risk1	creditrisk2	loan ratio	deposit-	total cost	total capital	Tier 1 capital	BIS standard	liquidty ratio	eqipment	size	roa	Q ratio
treat	0.0005	-0.0744	-0.0075 *	0.003	-0.0402	0.6078	0.0016	-0.0032	-0.003	-0.0077	0.0069	0.1446	0.001	-0.0123
p-value	0.407	0.432	0.084	0.673	0.673	0.681	0.805	0.418	0.479	0.271	0.911	0.126	0.338	0.322
obs.	1501	1310	1342	1485	1471	1509	1563	1070	1054	1536	1191	1563	1563	1458
ad-r2	0.0005	0.0005	0.0022	0.0001	0.0001	0.0001	0	0.0006	0.0005	0.0008	0	0.0015	0.0006	0.0007
PanelB: M&A														
treat	0.0003	-0.0412	-0.0095 *	0.0043	-0.0677	2.0435	0.0023	-0.0097	-0.0098	-0.0085	0.0687	0.1797	0.001	-0.0215
p-value	0.677	0.558	0.08	0.64	0.694	0.423	0.784	0.121	0.124	0.349	0.475	0.178	0.546	0.293
obs.	822	751	750	817	810	833	857	594	580	848	648	857	857	807
ad-r2	0.0002	0.0005	0.0041	0.0003	0.0002	0.0008	0.0001	0.0044	0.0044	0.001	0.0008	0.0021	0.0004	0.0014
PanelC: Alliance														
treat	0.0009	-0.0397	-0.0042	0.003	-0.0093	-1.3158	0.0004	0.0051	0.0053	-0.0091	-0.0744	0.1168	0.001	0.0022
p-value	0.438	0.842	0.586	0.79	0.784	0.25	0.973	0.252	0.367	0.425	0.349	0.384	0.436	0.858
obs.	616	516	530	603	596	611	639	441	439	622	484	639	639	588
ad-r2	0.001	0.0001	0.0006	0.0001	0.0001	0.0022	0	0.0029	0.0018	0.001	0.0018	0.0012	0.001	0.0001
PanelD: Cross Border														
treat	0.0002	-0.0853	-0.0058	-0.0053	-0.006	2.6421	0.0057	0.0037	0.0018	0.0004	0.1268	0.1515	0.0005	-0.0094
p-value	0.848	0.284	0.188	0.693	0.863	0.296	0.572	0.309	0.689	0.979	0.328	0.381	0.364	0.496
obs.	265	248	241	262	260	266	268	213	211	266	240	268	268	264
ad-r2	0.0001	0.0046	0.0071	0.0006	0.0001	0.004	0.0012	0.0048	0.0008	0	0.0039	0.0029	0.0031	0.0018
PanelE: Diversification														
treat	0.0007	-0.0787	-0.0063	0.0025	-0.0433	-1.4792	0.0017	-0.0001	0.0005	-0.0071	-0.0239	0.155	0.0021 *	-0.0031
p-value	0.385	0.549	0.21	0.775	0.748	0.315	0.841	0.985	0.892	0.418	0.753	0.162	0.1000	0.819
obs.	1063	907	940	1046	1034	1066	1111	771	759	1085	858	1111	1111	1053
ad-r2	0.0007	0.0004	0.0017	0.0001	0.0001	0.0009	0	0	0	0.0006	0.0001	0.0018	0.0025	0.0001

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

(Table 5) The before and after comparison results for after one year targets

Panel A: All Aquirers	1. earing	2, risk strategy				3, cost	4, capital adequancy strategy			5, liquidity	6, tecnology	the others		
	the other	credit risk1	creditrisk2	loan ratio	deposit-loans	total cost	total capital	Tier 1 capital	BIS standard	liquidty ratio	eqipment	size	roa	Q ratio
treat	0.008	-0.03	-0.0197 *	0.0207	-1.0951 **	4.7797 *	0.0196	-0.0246	-0.0211	-0.0075	0.2418 *	0.0494	-0.0203	0.0279
p-value	0.177	0.816	0.069	0.425	0.025	0.065	0.291	0.106	0.171	0.59	0.078	0.754	0.488	0.509
obs.	650	541	472	639	586	730	913	376	330	725	451	914	914	819
ad-r2	0.0032	0.0001	0.007	0.0011	0.0077	0.0047	0.0012	0.0073	0.0062	0.0004	0.007	0.0001	0.0006	0.0005
PanelB: M&A														
Variable														
treat	-0.0014	0.0121	-0.0015	0.0661	-1.9124 *	4.9552	-0.0177	0.0011	-0.0014	-0.0145	0.3965	-0.0168	-0.0262	0.0749 **
p-value	0.755	0.96	0.88	0.362	0.08	0.339	0.459	0.924	0.903	0.571	0.213	0.942	0.133	0.013
obs.	235	205	158	234	207	266	284	137	127	264	168	284	284	243
ad-r2	0.0004	0	0.0001	0.0047	0.0109	0.0044	0.002	0.0001	0.0001	0.0012	0.0114	0	0.0109	0.0263
PanelC: Alliance														
Variable														
treat	0.0124	-0.0184	-0.03 *	0.0059	-0.6026	4.8069	0.024	-0.0333	-0.0352	-0.0067	0.1676	0.1309	-0.019	0.0109
p-value	0.145	0.902	0.064	0.694	0.137	0.143	0.348	0.148	0.162	0.685	0.244	0.528	0.646	0.857
obs.	406	328	309	394	370	446	604	228	199	443	276	605	605	552
ad-r2	0.0053	0	0.0117	0.0004	0.006	0.0048	0.0015	0.0101	0.0113	0.0004	0.0052	0.0007	0.0004	0.0001
PanelD: Cross Border														
Variable														
treat	0.0009	-0.0531	-0.0127	0.0116	0.0196	10.8006 **	0.0008	0.0062	0.0066	-0.01	0.4682 *	0.0276	-0.0027	0.0073
p-value	0.655	0.787	0.238	0.446	0.531	0.049	0.958	0.458	0.444	0.492	0.072	0.886	0.169	0.692
obs.	273	256	227	282	282	288	294	178	170	288	227	294	294	271
ad-r2	0.0007	0.0003	0.0063	0.0021	0.0014	0.0135	0	0.003	0.0034	0.0017	0.0142	0.0001	0.0065	0.0006
PanelE: Diversification														
Variable														
treat	0.0111	0.0266	-0.027 *	0.0278	-1.657 **	2.4057	0.0273	-0.0349	-0.0316	-0.0121	0.2674	0.0693	-0.0226	0.0336
p-value	0.182	0.872	0.08	0.444	0.024	0.399	0.252	0.113	0.154	0.516	0.173	0.714	0.5560	0.535
obs.	459	355	321	441	389	510	688	249	221	502	299	689	689	632
ad-r2	0.0044	0.0001	0.0097	0.0015	0.0118	0.0014	0.0019	0.0108	0.0101	0.0008	0.0063	0.0002	0.0006	0.0006

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

(Table 6) The before and after comparison results for after three year acquirers

Panel A: All Aquirers

	1. earing	2, risk strategy				3, cost	4, capital adequancy strategy			5, liquidity	6, tecnology	the others		
	the other	credit risk1	creditrisk2	loan ratio	deposit-	total cost	total capital	Tier 1 capital	BIS standard	liquidty ratio	eqipment cost	size	roa	Q ratio
treat	0.0005	-0.2773 ***	-0.0162 ***	0.0028	-0.0599	0.9841	0.007	0.0043	-0.0059	0.0029	0.0054	0.4488 ***	0.0007	-0.0236 **
p-value	0.352	0.002	0	0.686	0.482	0.501	0.28	0.343	0.223	0.675	0.925	0	0.436	0.038
obs.	1445	1264	1318	1429	1417	1459	1501	1075	1049	1475	1166	1501	1501	1431
ad-r2	0.0006	0.0074	0.0117	0.0001	0.0003	0.0003	0.0008	0.0008	0.0014	0.0001	0	0.0145	0.0004	0.0029
PanelB: M&A														
Variable														
treat	0.0007	-0.1881 ***	-0.0159 ***	0.0024	-0.1366	2.7388	0.0082	0.0003	-0.0094	0.0025	0.0951	0.4842 ***	0.0009	-0.0415 **
p-value	0.273	0.003	0.003	0.791	0.359	0.28	0.343	0.968	0.256	0.79	0.305	0	0.417	0.027
obs.	795	728	736	789	782	809	827	599	579	819	634	827	827	793
ad-r2	0.0015	0.0119	0.0114	0.0001	0.001	0.0014	0.0011	0	0.0022	0.0001	0.0016	0.0156	0.0008	0.0061
PanelC: Alliance														
Variable														
treat	0.0004	-0.3495 *	-0.0172 ***	0.0065	0.0413	-0.8727	0.0061	0.0088 ***	-0.0008	0.0008	-0.1134 *	0.4376 ***	0.0003	0.0001
p-value	0.73	0.055	0.009	0.559	0.504	0.399	0.563	0.002	0.823	0.945	0.096	0.001	0.856	0.99
obs.	590	496	521	578	573	588	611	439	433	594	477	611	611	577
ad-r2	0.0002	0.0069	0.0125	0.0006	0.0009	0.0012	0.0006	0.0215	0.0001	0	0.0058	0.0167	0.0001	0
PanelD: Cross Border														
Variable														
treat	0.0005	-0.1731 **	-0.0091 **	0.0003	-0.0226	3.5699	0.0061	0.0041	-0.0118 **	0.0164	0.1194	0.4559 ***	-0.0001	-0.0254 **
p-value	0.606	0.015	0.022	0.984	0.505	0.271	0.505	0.225	0.018	0.266	0.382	0.009	0.93	0.047
obs.	261	244	245	257	256	262	264	214	211	263	238	264	264	261
ad-r2	0.001	0.0234	0.0212	0	0.0017	0.0046	0.0017	0.0069	0.0256	0.0047	0.0032	0.0257	0	0.015
PanelE: Diversification														
Variable														
treat	0.0004	-0.3185 ***	-0.0161 ***	0.0047	-0.0719	-0.0963	0.0065	0.0087 **	-0.0007	0.0026	0.005	0.4464 ***	0.0009	-0.0153
p-value	0.528	0.009	0	0.577	0.55	0.949	0.436	0.043	0.877	0.765	0.944	0	0.3790	0.19
obs.	1031	881	930	1012	1002	1038	1076	778	757	1051	843	1076	1076	1038
ad-r2	0.0004	0.0073	0.013	0.0003	0.0003	0	0.0006	0.005	0	0.0001	0	0.0149	0.0007	0.0016

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

(Table7) The difference in difference analysis results for after one year acquirers including country characters

		Legal_e				Legal_f				rating				Barht_bk				Barht_compfor				Barht_privatemoni			
	Variable	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2
1. earing divercification strategy	the other operation income	-0.005 ***	0	8881	0.0039	0.0041	0.233	8881	0.0026	0.0001	0.597	8649	0.0156	-0.0001	0.799	8749	0.0014	0.0001	0.187	7206	0.0133	0.001 ***	0	8425	0.013
2, risk strategy	credit risk1	-0.2426	0.263	7812	0.0043	-0.4605 **	0.045	7812	0.0002	0.0031	0.914	7668	0.0117	0.0512	0.214	7678	0.0021	-0.0224 ***	0	6235	0.0077	-0.0519 *	0.062	7358	0.0073
	creditrisk2	-0.2502 ***	0.004	7776	0.0025	0.154 ***	0	7776	0.0007	0.019 ***	0.003	7750	0.002	0.0274 ***	0	7750	0.0006	-0.0009 ***	0	6468	0.0006	0.0241 **	0.018	7443	0.0021
	loan ratio	0.0756 ***	0	8817	0.0036	-0.0676 ***	0.004	8817	0.0037	-0.0014	0.27	8665	0.0179	0.0158 ***	0	8681	0.0023	-0.0005	0.127	7177	0.0723	-0.0029 *	0.058	8360	0.0027
	deposit-loans ratio	-7.2705 *	0.074	8754	0.0008	2.9353	0.113	8754	0.0001	0.2277 *	0.063	8604	0.0001	-1.228 *	0.057	8620	0.0004	0.0584 *	0.087	7162	0.0003	0.8628 *	0.068	8299	0.0007
3, cost controlling strategy	total cost	-1.85	0.305	8621	0.0011	-1.2848	0.619	8621	0.0025	0.3983 *	0.053	8585	0.0014	-0.431	0.614	8585	0.0022	-0.0672 **	0.014	7152	0.0021	0.2677	0.239	8258	0.0006
4, capital adequancy strategy	total capital ratio	0.0204	0.128	10382	0.0007	0.0002	0.994	10382	0.0036	0.0013	0.397	9995	0.0034	-0.0059 **	0.045	10243	0.0024	0.0003	0.189	8205	0.001	0.0009	0.61	9768	0.0031
	Tier 1 capital ratio	-0.4224 *	0.081	6231	0.0014	-0.1605	0.498	6231	0.0004	0.0393 ***	0.007	6127	0.0012	-0.0962 **	0.012	6219	0.0012	-0.0005	0.836	5111	0.0003	0.0618 *	0.062	5876	0.0016
	BIS standard	0.0465	0.393	5703	0.0002	-0.3945	0.134	5703	0.0034	0.0248 *	0.058	5613	0.0021	-0.0529	0.106	5691	0.0016	-0.0036	0.138	4737	0.003	-0.0019	0.704	5468	0.0001
5, liquidity risk strategy	liquidty ratio	-0.0958 ***	0	9841	0.0206	0.0471 ***	0.006	9841	0.0236	-0.002 *	0.051	9499	0.0991	-0.0057 *	0.057	9703	0.0143	0.0007 **	0.015	7816	0.0987	0.0002	0.897	9290	0.0305
6, tecnology and innnovation strategy	eqipment cost	-0.0371	0.663	6484	0.0002	0.1585	0.485	6484	0.0105	0.0001	0.99	6457	0.0049	0.0014	0.975	6457	0.0015	-0.0023 ***	0	5086	0.0016	-0.0095	0.341	6139	0.0024
the others	size	0.3065 **	0.04	10395	0.0762	-0.1179	0.558	10395	0.1539	-0.008	0.573	10006	0.2755	0.1469 ***	0	10256	0.0634	0.0011	0.703	8212	0.2215	0.0456 ***	0.005	9777	0.1542
	roa	0.0031	0.331	10390	0	-0.0002	0.986	10390	0.0012	-0.0003	0.528	10001	0.0003	0.0012	0.369	10251	0.0011	0.0001	0.173	8208	0.0002	-0.0001	0.833	9772	0.0004
	Q ratio	-0.012	0.558	9529	0.0008	0.0831	0.195	9529	0.0023	-0.0038	0.124	9197	0.0015	-0.001	0.866	9435	0.0013	0.0008 ***	0.006	7557	0.0029	-0.0034	0.169	9062	0.0009

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

(*2)omitting other dummy variables for spaces

(Table8) The difference in difference analysis results for after three year acquirers including country characters

	Variable	Legal_e				Legal_f				rating				Barht_bk				Barht_compfor			Barht_privatemoni			
		cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	r2	cross term	p-value	N	r2
1. earing divercification strategy	the other operation income	-0.0015 ***	0	8342	0.0048	0.0004	0.506	8342	0.0025	0.0000	0.2090	8113	0.0161	-0.0001	0.302	8213	0.0016	0	0.293	0.0129	0.0002 ***	0	7902	0.0147
2, risk strategy	credit risk1	-0.1547 **	0.032	7324	0.005	-0.0964	0.102	7324	0.0002	0.0118	0.205	7182	0.0114	0.0085	0.467	7192	0.0019	-0.0068 ***	0	0.0073	-0.0021	0.812	6885	0.0079
	creditrisk2	-0.0748 ***	0.01	7383	0.0021	0.0454 ***	0.001	7383	0.0007	0.0059 ***	0.005	7359	0.0018	0.0081 ***	0	7359	0.0006	-0.0003 ***	0	0.0006	0.0071 **	0.034	7059	0.0019
	loan ratio	0.0297 ***	0	8276	0.0042	-0.0205 **	0.016	8276	0.0024	-0.001 **	0.017	8126	0.0139	0.0055 ***	0	8142	0.0023	0.0000	0.831	0.0627	-0.0015 ***	0.003	7834	0.0027
	deposit-loans ratio	-1.3912	0.174	8221	0.0007	0.5334	0.255	8221	0.0002	0.0476	0.123	8073	0.0002	-0.2474	0.131	8089	0.0004	0.0114	0.18	0.0004	0.1676	0.16	7781	0.0006
3, cost controlling strategy	total cost	0.0905	0.873	8088	0.0009	-0.683	0.67	8088	0.0023	0.0182	0.787	8054	0.0013	-0.2404	0.155	8054	0.0024	0.0115	0.484	0.0024	-0.0205	0.79	7741	0.0006
4, capital adequancy strategy	total capital ratio	0.0111 **	0.016	9770	0.0009	-0.0039	0.662	9770	0.0033	0.0002	0.756	9388	0.0031	-0.0013	0.226	9634	0.0024	0.0001 **	0.041	0.0011	0	0.963	9173	0.003
	Tier 1 capital ratio	-0.1454 *	0.084	5993	0.0014	-0.0533	0.511	5993	0.0004	0.0128 ***	0.009	5889	0.0012	-0.0325 **	0.012	5981	0.0013	-0.0002	0.833	0.0003	0.0203 *	0.073	5642	0.0016
	BIS standard	0.0192	0.315	5457	0.0002	-0.1361	0.13	5457	0.0035	0.008 *	0.073	5367	0.0021	-0.0184	0.101	5445	0.0016	-0.0013	0.117	0.003	-0.0017	0.362	5222	0.0001
5, liquidity risk strategy	liquidty ratio	-0.0369 ***	0	9246	0.0218	0.0088	0.138	9246	0.0181	0.0004	0.288	8907	0.0858	-0.0017 *	0.09	9111	0.0112	0	0.925	0.0813	0.0006	0.143	8712	0.0296
6, tecnology and innnovation strategy	eqipment cost	0.0184	0.52	6190	0.0002	-0.0042	0.964	6190	0.0082	-0.0002	0.952	6165	0.0048	-0.0095	0.253	6165	0.0023	-0.0004 *	0.062	0.0016	-0.0037	0.202	5859	0.0022
the others	size	0.1816 ***	0	9782	0.0871	-0.0179	0.787	9782	0.1594	-0.0086 *	0.074	9398	0.279	0.0484 ***	0	9646	0.0742	0.0016 *	0.062	0.2276	0.008	0.162	9181	0.1621
	roa	0.0012	0.222	9778	0.0001	-0.0008	0.8	9778	0.0013	-0.0001	0.525	9394	0.0003	0.0008 *	0.055	9642	0.0012	0.0000 ***	0	0.0003	0	0.879	9177	0.0005
	Q ratio	-0.0041	0.464	9014	0.0012	0.0173 **	0.05	9014	0.0027	-0.0007	0.181	8687	0.0019	0.0013	0.334	8923	0.0019	0.0002 **	0.015	0.0032	-0.0008	0.234	8558	0.0012

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

(*2)omitting other dummy variables for spaces

(Table9) The difference in difference analysis results for after one year targets including country characters

	Variable	Legal_e				Legal_f				rating				Barht_bk				Barht_compfor				Barht_privatemoni			
		cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2	cross term	p-value	N	r2
1. earing divercification strategy	the other operation income	0.0099	0.471	8030	0.0088	−0.0024	0.79	8030	0.0065	−0.0067	0.531	8030	0.0214	−0.0004	0.775	7899	0.0073	−0.0001	0.35	6504	0.0192	0.000	0.944	7601	0.0139
2, risk strategy	credit risk1	−0.2263	0.522	7043	0.0042	−0.3605	0.144	7043	0.0002	0.4421 **	0.043	7043	0.0037	−0.149 ***	0.001	6906	0.0014	−0.0166 ***	0.001	5603	0.0074	0.0488	0.196	6607	0.0053
	creditrisk2	−0.2718 ***	0.004	6906	0.0023	0.1424 ***	0.001	6906	0.0004	0.1795 ***	0.009	6906	0.0012	0.0191 ***	0.001	6880	0.0004	−0.0008 ***	0	5733	0.0002	0.0297 ***	0.006	6594	0.0019
	loan ratio	−0.0132	0.734	7971	0.0004	0.0564	0.551	7971	0.0017	−0.0113	0.784	7971	0.0025	−0.0091	0.589	7834	0.0012	0.0002	0.374	6468	0.066	−0.0028	0.7	7534	0.0018
	deposit-loans ratio	−7.702 *	0.074	7869	0.0008	3.0922 *	0.095	7869	0.0001	5.5561 *	0.064	7869	0.0004	−1.2472 *	0.058	7732	0.0003	0.0594 *	0.077	6411	0.0002	0.8942 *	0.073	7432	0.0006
3, cost controlling strategy	total cost	3.7774	0.335	7842	0.0012	3.8184	0.586	7842	0.0043	−7.1226 **	0.043	7842	0.0016	0.2014	0.853	7805	0.0036	0.0768	0.352	6508	0.0043	−0.0004	0.999	7501	0.0008
4, capital adequancy strategy	total capital ratio	0.1055 ***	0.001	9732	0.0064	−0.0883 ***	0.004	9732	0.0077	−0.0531 **	0.034	9732	0.0107	−0.007	0.213	9538	0.0065	−0.0009 ***	0.004	7644	0.0077	0.0016	0.678	9088	0.0074
	Tier 1 capital ratio	−0.4625 *	0.074	5537	0.0013	−0.139	0.551	5537	0.0002	0.4426 **	0.018	5537	0.0017	−0.0938 **	0.016	5525	0.0011	−0.0004	0.88	4523	0.0001	0.0678 *	0.057	5200	0.0015
	BIS standard	0.0411	0.486	4979	0.0001	−0.3721	0.153	4979	0.0033	0.132	0.111	4979	0.0012	−0.0498	0.14	4967	0.0016	−0.0035	0.144	4119	0.0029	−0.0013	0.819	4762	0
5, liquidity risk strategy	liquidty ratio	−0.0315	0.16	9030	0.0039	−0.0235	0.289	9030	0.0123	0.0252	0.219	9030	0.0148	−0.0012	0.763	8891	0.0047	−0.0005 *	0.065	7142	0.0767	0.0076 ***	0.007	8505	0.0144
6, tecnology and innnovation strategy	eqipment cost	−0.1184	0.529	5744	0.0021	0.0553	0.871	5744	0.0127	−0.0028	0.988	5744	0.0063	0.0193	0.709	5717	0.0036	0.0016	0.71	4476	0.0059	0.0403	0.146	5420	0.0036
the others	size	−0.8593 ***	0	9746	0.0367	0.9616 ***	0	9746	0.1027	0.5693 ***	0.007	9746	0.1606	−0.0407	0.385	9550	0.0177	0.0117 ***	0	7650	0.1961	−0.0333	0.271	9096	0.0891
	roa	−0.0356	0.637	9741	0.0018	−0.0053	0.904	9741	0.0021	0.0315	0.524	9741	0.002	0.0136 **	0.042	9545	0.0026	0.0005	0.458	7646	0.0025	−0.0104 *	0.098	9091	0.0038
	Q ratio	0.0838	0.322	8890	0.0003	−0.0189	0.714	8890	0.0012	−0.0561	0.374	8890	0.0017	0.0255 **	0.028	8755	0.0024	−0.0004	0.63	7029	0.0026	−0.0115	0.284	8410	0.0004

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

(*2)omitting other dummy variables for spaces

<Appendix 1>

Asia-Pacific Data

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, Japan, 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, Western Samoa
Asian market index	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, 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, BANGLADESHSE ALL SHARE Index
Geographic government bond	JP10YT, HK10YT, CN10YT, TW10YT, KR10YT, AU10YT, NZ10YT, PK10YT, LK5YT, TH10YT, ID10YT, SG10YT, MY10YT, PH10YT, VN10YT, IN10YT, US10YT.

<Appendix 2> The strategy variables for Asian banks

Strategy	Variables in Altunbas and Marques (2008)	Proxy variables used 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	Provisions ratio (credit risk) = loan loss provisions／net interest revenue Non-performing loan ratio (credit risk) = non-performing loans／total loans Loan ratio = total loans／total assets 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 assets	Total capital ratio = total capital／total asset Capital ratio 2 = tier 1 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 assets	Standard deviation of cash flows (sdcf) = ln(the standard deviation of [bank cash flow + investment cash flow + financial cash flow)]) Equipment cost ratio = equipment expense ／operating income
Controls	ROA Size Q ratio	ROA= net income/total asset size= ln(asset) Q ratio=market value of capital/book value of capital

*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.

<Appendix 3> Definitions of Barth(2004) Regulatory Variables

1. Bank activity regulatory variables

Variable	Definition	Source and quantification	World Bank guide questions
(a) Securities activities	The extent to which banks may engage in underwriting, brokering and dealing in securities, and all aspects of the mutual fund industry.	OCC and WBG 4.1 (higher values, more restrictive) Unrestricted =1: full range of activities can be conducted directly in the bank; Permitted =2: full range of activities can be conducted, but some or all must be conducted in subsidiaries; Restricted =3: less than full range of activities can be conducted in the bank or subsidiaries; and Prohibited =4: the activity cannot be conducted in either the bank or subsidiaries.	4.1 What is the level of regulatory restrictiveness for bank participation in securities activities (the ability of banks to engage in the business of securities underwriting, brokering, dealing, and all aspects of the mutual fund industry)?
(b) Insurance activities	The extent to which banks may engage in insurance underwriting and selling.	OCC and WBG 4.2 (higher values, more restrictive) Unrestricted =1: full range of activities can be conducted directly in the bank; Permitted =2: full range of activities can be conducted, but some or all must be conducted in subsidiaries; Restricted =3: less than full range of activities can be conducted in the bank or subsidiaries; and Prohibited =4: the activity cannot be conducted in either the bank or subsidiaries.	4.2 What is the level of regulatory restrictiveness for bank participation in insurance activities (the ability of banks to engage in insurance underwriting and selling)?
(c) Real estate activities	The extent to which banks may engage in real estate investment, development and management.	OCC and WBG 4.3 (higher values, more restrictive) Unrestricted =1: full range of activities can be conducted directly in the bank; Permitted =2: full range of activities can be conducted, but some or all must be conducted in subsidiaries; Restricted =3: less than full range of activities can be conducted in the bank or subsidiaries; and Prohibited =4: the activity cannot be conducted in either the bank or subsidiaries.	4.3 What is the level of regulatory restrictiveness for bank participation in real estate activities (the ability of banks to engage in real estate investment, development, and management)?

3. Competition regulatory variables

Variable	Definition	Source and quantification	World Bank guide questions
(a) Limitations on foreign bank entry/ownership	Whether foreign banks may own domestic banks and whether foreign banks may enter a country's banking industry.	OCC Yes =1; No =0	
(b) Entry into banking requirements	Whether various types of legal submissions are required to obtain a banking license.	WBG 1.8.1−1.8.8 Yes =1; No =0 Higher values indicate greater stringency.	1.8 Which of the following are legally required to be submitted before issuance of the banking license? 1.8.1 Draft by-laws? Yes/No 1.8.2 Intended organization chart? Yes/No 1.8.3 Financial projections for first three years? Yes/No 1.8.4 Financial information on main potential shareholders? Yes/No 1.8.5 Background/experience of future directors? Yes/No 1.8.6 Background/experience of future managers? Yes/No 1.8.7 Sources of funds to be disbursed in the capitalization of new banks? Yes/No 1.8.8 Market differentiation intended for the new bank? Yes/No
(c) Fraction of entry applications denied	The degree to which applications to enter banking are denied.	WBG (1.9.1 +1.10.1)/(1.9 +1.10) (pure number)	1.9 In the past five years, how many applications for commercial banking licenses have been received from domestic entities? 1.9.1 How many of those applications have been denied? 1.10 In the past five years, how many applications for commercial banking licenses have been received from foreign entities? 1.10.1 How many of those applications have been denied?

(1) Domestic denials	The degree to which foreign applications to enter banking are denied.	WBG 1.9.1/1.9 (pure number)	1.9 In the past five years, how many applications for commercial banking licenses have been received from domestic entities? 1.9.1 How many of those applications have been denied?
(2) Foreign denials	The degree to which domestic applications to enter banking are denied.	WBG 1.10.1/1.10 (pure number)	1.10 In the past five years, how many applications for commercial banking licenses have been received from foreign entities? 1.10.1 How many of those applications have been denied?

7. Private monitoring variables

Variable	Definition	Source and quantification	World Bank guide questions
(a) Certified audit required	Whether there is a compulsory external audit by a licensed or certified auditor.	WBG 5.1 *5.3(Yes =1; No =0)	5.1 Is an external audit a compulsory obligation for banks? Yes/No 5.3 Are auditors licensed or certified? Yes/No
(b) Percent of 10 biggest banks rated internationally	The percentage of the top ten banks that are rated by international credit rating agencies.	WBG 10.7.1 (percent)	10.7.1 What percent of the top ten banks are rated by international credit rating agencies (e.g., Moody's, Standard and Poor)?
(c) No explicit deposit insurance scheme	Whether there is an explicit deposit insurance scheme and, if not, whether depositors were fully compensated the last time a bank failed.	WBG 1 if 8.1 = 0 and 8.4 = 0; 0 otherwise Yes =1; No =0 Higher values indicate more private supervision	8.1 Is there an explicit deposit insurance protection system? Yes/No 8.4 Were depositors wholly compensated (to the extent of legal protection) the last time a bank failed? Yes/No
(d) Bank accounting	Whether the income statement includes accrued or unpaid interest or principal on nonperforming loans and whether banks are required to produce consolidated financial statements.	WBG (10.1.1 −1)*(−1)+10.3 +10.6 Yes =1; No =0 Sum of assigned values, with higher values indicating more informative bank accounts.	10.1.1 Does accrued, though unpaid interest/principal enter the income statement while the loan is still non-performing? 10.3 Are financial institutions required to produce consolidated accounts covering all bank and any non-bank financial subsidiaries? 10.6 Are bank directors legally liable if information disclosed is erroneous or misleading?
(e) Private monitoring index	Whether (a) occurs, (b) equals 100%, (c) occurs, (d) occurs, off-balance sheet items are disclosed to the public, banks must disclose risk management procedures to the public, and subordinated debt is allowable (required) as a part of regulatory capital.	WBG: (a) +[1 if (b) equals 100%; 0 otherwise] +(c) +(d) +10.4.1 +10.5 +3.5 Yes =1; No =0 Higher values indicating more private supervision.	10.4.1 Are off-balance sheet items disclosed to the public? Yes/No 10.5 Must banks disclose their risk management procedures to the public? Yes/No 3.5 Is subordinated debt allowable (required) as part of capital? Yes/No