

International Evidence on Relationship Banking in Mergers and Acquisitions

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Abstract

In this paper we study the effects of relationship banking in mergers and acquisitions. We focus on completed mergers and acquisitions of public companies between January 2001 and December 2008 from Security Data Corporation (SDC) for four countries, namely United Kingdom, United States, Japan, and Germany. Financial system of Japan and Germany is grouped into so-called bank-based financial system and that of the United States and the United Kingdom is market-based financial system.

We find evidence that target firms with financial advisor in M&A have significantly higher premium than those without advisor relationship. Moreover, if the acquirer firms hire their lead bank as financial advisor, the long term bank relationship between the acquirer and the bank decreases the M&A premium. We also investigate the impact of bank-client relationship and different financial systems on determining premium and value of transaction.

Keywords: Relationship banking, Mergers, Acquisitions, M&A, Financial systems

1. Introduction

For more than two decades, firms all over the world have experienced Mergers and Acquisitions waves due to various reasons, yet empirical evidence about the consequences of financial benefit is indeed cursory and warrants further research. For example, the cross-border M&A activity, one important type of the foreign direct investment (FDI), enhances our understanding of complex phenomenon that M&A presents. Cartwright and Schoenberg (2006) conduct a survey of the past thirty years of mergers and acquisitions research and point out a broad range of management disciplines related to M&A, including the strategic, behavioral, operational, cross-cultural, financial, and even human and psychological aspects. Despite the subprime crisis has hit the global economy in 2007-2008, the number of announced mergers and acquisitions (M&A) deals was 38,325 globally and the value of worldwide M&A was summed to US\$ 2.07 trillion for full year 2009. Global dollar volume in

announced mergers and acquisitions rose 15.6 percent in 2010, to \$2.4 trillion. Another sign of optimism from the global crisis is the increase in premiums being offered for publicly traded companies. Acquiring firms are willing to pay substantially more than the current market value in the United States after the collapse of Lehman Brothers in 2008. For example, the financial industry receives the highest premiums of 55% in 2010, according to Thomson Reuters data. Therefore, M&A Premium is a topic of interest measuring the recovery from the global financial crisis. Relationship banking offers opportunity for firms in need of financing funds.

Having an established relationship with a bank can be very valuable. In examining M&A with relationship banking, we provide twofold argument on the merger premium. First, close and continued interaction between bank and firms can fosters mutual confidence and may therefore help to reduce information asymmetries between the two parties. Therefore, we expect that banking relationship reduces premium paid for the M&A, thus benefits the existing stockholders. The second argument debates on whether alternative financial systems warrant the magnitude of M&A premium paid. We expect higher premium due to increased competition in market-based M&A deals opposed to bank-based ones.

The remainder of the paper is organized as follows. Section 2 reviews the extensive literature on mergers and acquisitions, and the literature on relationship banking. The data and sample selection process is described in section 3. Section 4 depicts the empirical model design. The empirical results are presented and discussed in Section 5. Section 6 concludes.

2. The Literature

2.1. Mergers and Acquisitions

There are several major branches of the mergers and acquisitions literature. First, there is the literature concerning the gain and loss of M&A. Second, there is the literature examining whether the role of financial advisors create or destroy the firm value after the merger. Third, there is the literature investigating the issues related to cross-border M&A at the international level. Forth, there is the literature arguing the causes and characteristics of mergers and acquisitions.

By measuring whether exist abnormal returns upon merger announcements or not, an exhaustive empirical study of target firms tend to gain positive abnormal returns, while acquiring firms experience zero or even negative abnormal returns (Andrade et al., 2001 and Fuller et al., 2002). One possible reason to explain this phenomenon is the relative competitive environment for acquiring firms to bid for targets.

Mandelker (1974) and Martin and McConnell (1991) document that corporate control market of takeover from effective management team over poor performance of target firms with synergy extracted from mitigation of agency problem. Therefore, acquiring firms bid more aggressively through substantial premium to catch the acquisition great returns. Billett and Qian (2008) point out that due to the winner's curse, mergers enhance the competition for listed target firms and managerial hubris-related effect, and then lead to the reduction of the acquirers' gain. Alexandridis et al. (2010) find evidence of the degree of competition in the market for corporate control is a major determinant of shareholder gains and takeover premia. Besides the hubris hypothesis and market power viewpoints in explaining the magnitude of gains between targets and acquirers, there are others, such as synergy motive hypothesis studied by Berkovitch and Narayanan (1993) and Himmelberg et al. (1999) in explaining the synergistic gains for targets in terms of creating internal capital markets within a conglomerate created by a diversifying mergers and acquisitions.

There is a group of literature concerning whether the role of advisors adds value in mergers and acquisitions. Bharadwaj and Shivdasani (2003) find evidences of abnormal returns related positively to the portion of the acquisition financed by bank debt, and thereby suggest a certification effect of the role for commercial banks in mergers and acquisitions. Allen et al. (2004) refer the bank certification effect as if the role of a financial advisor in M&A is to obtain information and have comparative

advantage in advising the customers. They find that the merger financial advisor of the target firm is their relationship bank with whom the target has had a prior lending relationship. The target firms have abnormal returns because of the merger announcement and thereby show a certification effect. However, acquirer abnormal returns are either insignificant or even negatively different from zero. Forte et al. (2010) investigate the factors affecting the target's choice of the advisor in M&A. They find that closer firm-bank relationship increases the probability of target firms in hiring an advisor. In addition, prior closer firm-bank previous relationship positively affects the abnormal return of target firms' shareholders, indicating a certification effect of investment banks.

In studying the capital flow across border and corporate control reallocation at the international level of M&A, di Giovanni (2005) addresses that financial variables and institutional factors play significant roles in cross-border M&A activities. The author demonstrates the size of financial markets, as measured by the stock market capitalization to GDP ratio, affects the domestic firms' decision whether to acquire overseas. Ferreira et al. (2010) investigate how institutional investors affect the pattern and volume of M&A, and find higher abnormal returns when institutions are present as shareholders no matter in target or acquirer firms.

One part of the M&A literature tries to illustrate the cause and characteristics of merger waves. Harford (2005) documents two competing viewpoints, neoclassical and behavioral hypothesis, in explaining what drives M&A activities. Neoclassical explanations of M&A waves argue that mergers waves result from changes to a technological, industrial, or regulatory environment. Whether such shocks lead to wave of M&A, nonetheless, sufficient capital liquidity is mattering. Meanwhile, proponents of the behavioral hypothesis of M&A waves argue that stock market valuations drive M&A activities, rather than other reasons such as technological changes or industrial factors mentioned by neoclassical hypothesis. Under the behavioral hypothesis, when numerous firms use overvalued stock to buy the assets of lower-valued firms, could lead to an M&A wave.

Neoclassical explanations of merger waves could be dated to 1930s, in which Coase (1937) argue that technological changes drive mergers. More recently, Rossi and Volpin (2004) find that the volume of M&A is significantly larger in those countries with stronger shareholder protection regulation and better accounting standards. Moreover they examine cross-border deals and find that target firms are significantly from countries with poor investor protection than their acquirers' countries. Therefore, they suggest cross-border M&A transactions play a governance role via improving the degree of investor regulation protection within target firms. Bris and Cabolis (2008) depict that cross-border mergers provide an opportunity to analyze the effects of changes in corporate governance on firm value. In their study, the acquirer's country with better shareholder protection and accounting standards has higher merger premium in cross-border mergers relative to domestic acquisitions. They confirm the research results of Rossi and Volpin (2004), and document further that corporate governance motivate cross-border acquisitions.

Opposite to neoclassical perspective, behavioral hypothesis asserts that it is market value driving an M&A wave. Rhodes-Kropf and Viswanathan (2004) depict that stock market valuation fundamentally impact mergers for various reasons, such as technology, innovation, and deregulation, could lead to merger waves but offering no further details on why stock and cash be used as the medium of change. They argue merger waves can be driven by misevaluation, over- and undervaluation of stocks. Shleifer and Vishny (2003) also argue that mergers clustering in a given time period are because M&A driven by stock market valuations.

Alexandridis et al. (2011) depict the sixth merger wave that started in 2003 and came to an end in mid-2007. Based on U.S. sample, their evidence shows that acquirers continue to realize significant losses around announcements during the sixth merger wave. In contrast to the 1990s, cash financed deals no longer create value for acquiring firms shareholders, and stock-swap deals continue to result in extensive losses. They investigate that acquirers are less overvalued relative to the 1990s, and result in more cash financing rather than equity financing. Based on this finding, they conclude the drivers of

the sixth merger wave are more consistent with neoclassical explanations of merger waves, the low financing rate and sufficient liquidity ply on plenty cash.

2.2. Relationship Banking

In the relationship banking literature, firms with close relationship with banks are opt to acquire more information; therefore diminishing information asymmetry and monitoring cost (Diamond, 1984, 1989; Boot, 2000; Berger et al., 2001; Jimenez and Saurina, 2004). For example, the close relationship increases the lending amount of firms (Petersen and Rajan, 1994) and reduces the lending cost (Berger and Udell, 1995). That is, the longer the duration of the relationship between bank and firm, the greater the credit availability and the lower the collateral requirements. Additionally, Harhoff and Körting (1998) indicate that good firms tend to maintain longer relationships with fewer banks, and firms with exclusive lending relationships have better collateral requirements, lower interest rates and better credit availability. Petersen and Rajan (1994) suggest that the number of bank relationships affect negatively on firm performance. However, Degryse and Ongena (2001) demonstrate that the fewer the number of bank relationships, the better the firm performance. Houston and James (2001) use detailed information on the 250 publicly traded U.S. firms over the 1980-93. The authors find that the ratio of sensitivity of investment to internally generated funds increases with a firm's reliance on bank financing. They also show that for most levels of investment spending, bank-dependent firms appear to be slightly less cash-flow-constrained than firms with access to public debt markets.

Numerous empirical studies examine past lending relationships and future banking business, and most of them show bank-client relationships play important role. For instance, Burch et al. (2005) examine the bank-client underwriting relationships with impact over underwriting fee during the period of 1975-2001. They find that loyalty to a bank decreases fees for common stock offers and increases fee for debt offerings. They argue this is because underwriter certification and the associated investigation costs should be more critical in common stock offers relative to debt offers. Yasuda (2005) examine the effect of bank relationship on underwriter choice in the U.S corporate-bond underwriting market, and find that bank relationship has significantly positive effects on a firm's choosing underwriter. Ljungqvist et al. (2006) investigate analyst behavior and the banks' likelihood of winning underwriting mandates, and find no evidence that analyst behavior will increase their bank's probability of winning an underwriting mandate. They conclude that the strength of prior underwriting and lending relationships is main determinant of the leading bank choice.

Most of empirical studies document the possible benefits of lending relationships for the borrower (the firm side) as discussed above, Bharath et al. (2007) investigate the possible consequences of lending relationship upon the lender (the bank side) from 1986 to March, 2001. They focus on three markets, the market for the bank loans, the market for public equity underwriting services, and the market for public debt underwriting services, and examine whether a relationship lender can benefit from its close ties with its borrower. Their findings show that the probability of a relationship lender providing a future loan is 42%, with 3% much higher than that of a non-relationship lender. They also find that the firm with greater information asymmetry is significantly likely to obtain future loans from its previous relationship bank.

As Boot and Marinc (2008) point out the information acquisition and relationship banking are key features of financial intermediaries. Therefore, it is interesting to propose the question whether different financial systems could or how likely affect relationship banking? And then to what extent affect the consequences of mergers and acquisitions? As far as we are aware, no study has examined the impact of relationship banking on the M&A activities regarding the different financial systems. Our paper contributes to bridge the gap.

3. The Data

3.1. Initial Sample and Data Sources

The data employed here is from Securities Data Corporation (SDC). We obtain data on all value of transaction available and completed mergers and acquisitions of public companies between January 2001 and December 2008 for four countries, United Kingdom, United States, Japan, and Germany.

Mainly, there are three ways to measure the strength of the bank-client relationship, the bank loans relations, the underwriting relations, and the financial advisors relations. The Loan Pricing Corporation Dealscan database contains data on loans for the US large publicly traded companies, but not for other three countries. Therefore, we employ the underwriting and financial advisors ways to measure the bank-client relationship. Especially, in order to construct the relationship using underwriting data, we look back and search for the past five years underwriting record of the acquirer. The underwriting records are from Global New Issues database, covering from 1996 to 2007.

3.2. Data Selection

In order to examine the role of bank-client relationship and their impact on the M&A premium in this paper, we construct the long-term relationship-based variable using the underwriting record of the acquirer from Global New Issues database and the M&A record of the acquirer which has financial advisors involved in the M&A process.

First, we collect all acquirer data from M&A deals and apply CUSIP to search their previous five years underwriting records available. Secondly, we match acquirer's lead bank in its underwriting activity with its financial advisor in its current M&A deal if it hire financial advisor. We then match past five years lead bank with financial advisor when constructing the long term relation variable. Finally, after using CUSIP code to match the acquirer, we verify name matches where lead bank's names have changed during the time. The long-term relationship banking variable is a dummy variable in which it is set to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity as well.

4. The Empirical Model Design

4.1. Variable Definition and Empirical Model

We define variable Premium is the premium one week prior to announcement date. That is, the bid price as a percentage of the closing price of the target one week before the announcement. Variable Value-tran is the value of M&A transaction. Variable Acq_ad is a dummy variable set equal to one if the acquirer has financial advisor involving in the current M&A process. Tar_ad is a dummy variable set equal to one if the target firm hire financial advisor in the current M&A process. If the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity, we record a long term bank relation dummy variable, Relat_ad with value one.

Cro_border is a dummy variable set equal to one if the M&A transaction is cross-border. That is, the country of the acquirer firm is different from the country of the target. Acq_ad_cro is a dummy variable set equal to one if the acquirer has financial advisor involving in the M&A process and the M&A transaction is cross-border. Tar_ad_cro is a dummy variable set equal to one if the target firm has financial advisor and the M&A transaction is cross-border. Relat_ad_cro is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity, and the M&A transaction is cross-border as well.

If the country of the acquirer is United Kingdom or United States, dummy variable Fin_system takes on the value one. This dummy captures the different financial systems between market-based (United Kingdom and United States) and bank-based (Japan and Germany). Duk is a dummy variable set equal to one if the acquirer's country is United Kingdom, the rest of three countries are set to zero. Dus is a dummy variable set equal to one if the acquirer's country is United States. Dger is a dummy

variable set equal to one if the acquirer's country is Germany. We first estimate the model 1 expressed as the following:

$$\text{Premium}_i = f(\text{Acq_ad}, \text{Tar_ad}, \text{Relat_ad}, \text{Cro_border}, \text{Acq_ad_cro}, \text{Tar_ad_cro}, \text{Relat_ad_cro}) + \varepsilon_i \quad (\text{Model 1})$$

This model allows us to investigate how the relation-based variables and cross border factors affect M&A premium. Model 2 is as the following with the alternative financial system factor into consideration. This allows us to examine whether the market-base and bank-base financial system affect M&A activities.

$$\text{Premium}_i = f(\text{Acq_ad}, \text{Tar_ad}, \text{Relat_ad}, \text{Cro_border}, \text{Acq_ad_cro}, \text{Tar_ad_cro}, \text{Relat_ad_cro}, \text{Fin_system}) + \varepsilon_i \quad (\text{Model 2})$$

With the expression as the following, we additionally consider the effect of different country on premium in model 3.

$$\text{Premium}_i = f(\text{Acq_ad}, \text{Tar_ad}, \text{Relat_ad}, \text{Cro_border}, \text{Acq_ad_cro}, \text{Tar_ad_cro}, \text{Relat_ad_cro}, \text{Duk}, \text{Dus}, \text{Dger}) + \varepsilon_i \quad (\text{Model 3})$$

Finally, we investigate the effect of relation-based variables and financial system variable only in model 4 as follows.

$$\text{Premium}_i = f(\text{Acq_ad}, \text{Tar_ad}, \text{Relat_ad}, \text{Fin_system}) + \varepsilon_i \quad (\text{Model 4})$$

4.2. Research Hypothesis

With the empirical model specified above, we test the following research hypotheses:

- a. How do acquirer's and target's financial advisor relation affect premium respectively? This could be captured by the empirical results of variable Acq_ad and Tar_ad through model 1 to model 4.
- b. How do acquirer's long term banking relationship affect premium? These effects are captured by the results of variable Relat_ad through model 1 to model 4.
- c. Do the effects of relations on premium differ if M&A activities cross border? These effects could be tested from model 1 to model 3 by the coefficient variables Acq_ad_cro, Tar_ad_cro, and Relat_ad_cro.
- d. Does M&A premium differ between alternative financial system or country? We test this by examining variable Fin_system in model 2 and variables Duk, Dus and Dger in model 3, respectively.

5. Empirical Results

5.1. Overall Results

Table 1 provides descriptive summary of the variables used for financial markets in the U.S., U.K., Germany and Japan from January 2001 to December 2008. The average premium paid for the M&A is about 20% with relative large variation. The deal transaction average is US\$ 623 million. There are about half of the acquirers and over 52 % of the target firm in our sample with financial adviser involving in the transaction. About 58% of the acquiring firms are either in the U.S. or U.K., with 6% of the acquirer has prior bank relationship with the lead bank which is its advisor in the M&A transaction. This indicates the advisory bank with the strongest past relationship holds relative more information than the average bank for the operation. Cross- border transactions account for 14% in the sample.

Table 1: Descriptive Summary of the Sample

Variable	Mean	Standard deviation	Maximum	Minimum
Premium (%)	20.072	56.095	1,650	-99.91

Table 1: Descriptive Summary of the Sample - continued

Value_tran (million US\$)	623.22	2886.09	72,671	0.01
Acq_ad	0.4918	0.4999	1	0
Tar_ad	0.5285	0.4992	1	0
Relat_ad	0.0633	0.2436	1	0
Cro_border	0.1407	0.3478	1	0
Tar_ad_cro	0.0744	0.2624	1	0
Acq_ad_cro	0.0842	0.2777	1	0
Relat_ad_cro	0.0089	0.0944	1	0
Fin_system	0.5798	0.4936	1	0
Duk	0.1150	0.3190	1	0
Dus	0.4647	0.4987	1	0
Dger	0.0372	0.1892	1	0
Num of Observations	7337			

Note: Premium is the bid price as a percentage of the closing price of the target one week before the announcement. Variable Value-tran is the value of M&A transaction. Variable Acq_ad is a dummy variable set equal to one if the acquirer has financial advisor involving in the current M&A process. Tar_ad is a dummy variable set equal to one if the target firm hire financial advisor in the current M&A process. Relat_ad is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity as well. Cro_border is a dummy variable set equal to one if the M&A transaction is cross-border. Acq_ad_cro is a dummy variable set equal to one if the acquirer has financial advisor involving in the M&A process and the M&A transaction is cross-border. Tar_ad_cro is a dummy variable set equal to one if the target firm has financial advisor and the M&A transaction is cross-border. Relat_ad_cro is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity, and the M&A transaction is cross-border as well. Fin_system is a dummy variable set equal to one if the country of the acquirer is United Kingdom or United States. Duk is a dummy variable set equal to one if the acquirer's country is United Kingdom, the rest of three countries are set to zero. Dus is a dummy variable set equal to one if the acquirer's country is United States. Dger is a dummy variable set equal to one if the acquirer's country is Germany.

Table 2 shows the frequency distribution of the sample by year in which the percentage of M&A with advisor is dramatically decreased in 2008. Our international samples coincide with the sixth merger wave emerged in 2003, about three years after the burst of internet bubble of the fifth merger cycles. The wave ended in mid-2007 with credit market tightened accompanied by skepticism about financial system and economic environment. The global merger and acquisition market fell by a third in 2008 after five years of constant growth with credit lock up in a bearish capital market (Alexandridis et al., 2011). Firms with previous bank relationship with lead bank who is the deal financial advisor account for 5 to 8 percent through our sample year. M&A transactions keep decreasing to combined 43% in 2008 for the U.S. and U.K. while in the Germany with slight variation from 3% to 5%. M&A cross-border transactions stay relatively constant.

Table 2: Frequency Distribution of the Sample by Year (2001-2008)

Variable	Total (%)	2001	2002	2003	2004	2005	2006	2007	2008
Acq_ad	0.49	0.47	0.52	0.49	0.57	0.57	0.53	0.51	0.33
Tar_ad	0.53	0.59	0.56	0.57	0.60	0.60	0.56	0.49	0.35
Relat_ad	0.06	0.06	0.08	0.07	0.07	0.08	0.05	0.06	0.05
Cro_border	0.14	0.12	0.12	0.13	0.16	0.14	0.16	0.15	0.14
Tar_ad_cro	0.07	0.05	0.06	0.07	0.09	0.07	0.09	0.08	0.07
Acq_ad_cro	0.08	0.08	0.08	0.08	0.10	0.09	0.09	0.09	0.07
Relat_ad_cro	0.02	0.01	0.02	0.03	0.02	0.01	0.02	0.02	0.02
Fin_system	0.58	0.74	0.66	0.64	0.62	0.58	0.58	0.51	0.43
Duk	0.12	0.13	0.14	0.12	0.09	0.11	0.13	0.11	0.10
Dus	0.46	0.61	0.53	0.52	0.53	0.46	0.45	0.40	0.34

Table 2: Frequency Distribution of the Sample by Year (2001-2008) - continued

Dger	0.04	0.04	0.05	0.03	0.04	0.04	0.03	0.04	0.04
Num of Observations	7337	851	694	786	705	855	983	1232	1231

Note: 1.The number indicates the percentage of the frequency to total number of observations. 2. Premium is the bid price as a percentage of the closing price of the target one week before the announcement. Variable Value-tran is the value of M&A transaction. Variable Acq_ad is a dummy variable set equal to one if the acquirer has financial advisor involving in the current M&A process. Tar_ad is a dummy variable set equal to one if the target firm hire financial advisor in the current M&A process. Relat_ad is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity as well. Cro_border is a dummy variable set equal to one if the M&A transaction is cross-border. Acq_ad_cro is a dummy variable set equal to one if the acquirer has financial advisor involving in the M&A process and the M&A transaction is cross-border. Tar_ad_cro is a dummy variable set equal to one if the target firm has financial advisor and the M&A transaction is cross-border. Relat_ad_cro is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity, and the M&A transaction is cross-border as well. Fin_system is a dummy variable set equal to one if the country of the acquirer is United Kingdom or United States. Duk is a dummy variable set equal to one if the acquirer's country is United Kingdom, the rest of three countries are set to zero. Dus is a dummy variable set equal to one if the acquirer's country is United States. Dger is a dummy variable set equal to one if the acquirer's country is Germany.

Table 3 presents break-up of premium and deal amount in by country and year. The overall average premium 31.07% in the U.S. is the highest, followed by the U.K. 27.51%, Germany 18.26% and 4.6 % for Japan. Japan has merger discount of 6.82% and 2.90% for 2004 and 2005. This result confirms the reported findings of the abnormally low premiums in Japan in Rossi and Volpin (2004). Japan again is the only country where a negative stock price premium was reported. Miyajima (2007) suggests that Japanese M&A evolve strategically with consolidate and restructuring operations compound with deregulation and liberalization. Besides, conservative accounting standards and different legal infrastructure for corporate consolidation with declining power of the main bank system clouds the picture.

Table 3: Mean of the Sample by Country and by Year (2001-2008)

Variable Country	Total	2001	2002	2003	2004	2005	2006	2007	2008
Premium	20.0723	27.4438	27.654	29.2641	11.7767	15.0371	16.5758	15.4137	20.5356
UK	27.5147	35.6061	24.067	38.4581	14.725	28.3589	19.0452	23.9331	32.5825
US	31.0715	35.2745	41.9576	42.7086	22.7624	27.1236	28.2868	24.1421	27.2055
Germany	18.2591	19.3873	30.3803	19.434	16.515	9.4809	16.0732	11.5037	22.8064
Japan	4.6653	2.852	2.7324	5.3158	-6.826	-2.9009	2.2939	6.0934	13.8373
Value_tran	623.2219	516.5167	332.3726	377.4632	672.4916	877.6011	968.0273	709.0835	451.709
UK	661.4701	346.5821	551.816	307.2566	436.8797	587.6048	577.8594	1071.498	1121.79
US	994.0724	661.8914	407.7463	564.1689	1067.483	1324.878	1730.4	1333.865	774.836
Germany	981.7972	1364.039	471.123	656.925	384.5115	1674.147	2290.418	667.8866	726.1213
Japan	126.8616	95.05266	67.30929	74.567	145.9424	352.162	115.5546	82.7056	98.4148
Acq_ad	0.491	0.471	0.521	0.493	0.568	0.574	0.534	0.513	0.331
UK	0.733	0.745	0.832	0.632	0.694	0.827	0.724	0.788	0.617
US	0.537	0.474	0.481	0.509	0.622	0.601	0.639	0.593	0.378
Germany	0.678	0.633	0.606	0.592	0.678	0.838	0.643	0.739	0.66
Japan	0.347	0.281	0.44	0.407	0.439	0.442	0.345	0.358	0.221
Tar_ad	0.528	0.593	0.562	0.571	0.604	0.604	0.561	0.492	0.352
UK	0.671	0.728	0.674	0.61	0.548	0.786	0.691	0.701	0.575
US	0.68	0.685	0.642	0.694	0.739	0.742	0.748	0.684	0.504
Germany	0.55	0.333	0.424	0.407	0.5	0.581	0.75	0.717	0.58
Japan	0.3	0.307	0.385	0.377	0.418	0.385	0.29	0.256	0.2
Relat_ad	0.063	0.06	0.081	0.066	0.068	0.083	0.05	0.061	0.051
UK	0.063	0.044	0.084	0.095	0.048	0.102	0.041	0.036	0.067
US	0.067	0.076	0.071	0.059	0.074	0.091	0.043	0.078	0.046

Table 3: Mean of the Sample by Country and by Year (2001-2008) - continued

Germany	0.037	0	0.061	0	0.071	0.065	0.036	0.043	0.02
Japan	0.062	0.036	0.1	0.075	0.063	0.07	0.062	0.053	0.054
Cro_border	0.141	0.12	0.122	0.126	0.156	0.136	0.162	0.153	0.141
UK	0.334	0.325	0.242	0.295	0.323	0.255	0.407	0.387	0.383
US	0.156	0.074	0.123	0.144	0.184	0.152	0.188	0.207	0.186
Germany	0.473	0.567	0.424	0.37	0.393	0.452	0.357	0.543	0.56
Japan	0.032	0.052	0.015	0.008	0.042	0.052	0.039	0.018	0.034
Acq_ad_cro	0.084	0.076	0.081	0.078	0.101	0.087	0.093	0.088	0.075
UK	0.204	0.219	0.179	0.179	0.21	0.173	0.203	0.255	0.192
US	0.087	0.047	0.082	0.09	0.12	0.088	0.105	0.097	0.08
Germany	0.333	0.333	0.182	0.222	0.25	0.419	0.286	0.478	0.38
Japan	0.02	0.031	0.015	0.004	0.025	0.027	0.028	0.007	0.026
Tar_ad_cro	0.074	0.054	0.063	0.073	0.089	0.075	0.089	0.084	0.066
UK	0.161	0.175	0.105	0.147	0.129	0.184	0.195	0.19	0.133
US	0.087	0.035	0.079	0.09	0.114	0.078	0.105	0.109	0.092
Germany	0.253	0.133	0.152	0.148	0.25	0.258	0.286	0.435	0.26
Japan	0.016	0.021	0	0.008	0.021	0.021	0.021	0.008	0.022
Relat_ad_cro	0.009	0.0071	0.0101	0.0127	0.0099	0.0082	0.0081	0.0097	0.0073
UK	0.0308	0.0351	0.0316	0.0632	0.0161	0.0306	0.0244	0.0146	0.0333
US	0.0094	0.0039	0.0109	0.0098	0.016	0.0051	0.0067	0.0164	0.0072
Germany	0.0147	0	0	0	0	0	0.0357	0.0435	0.02
Japan	0.0014	0	0	0	0	0.0061	0.0026	0	0.0015
Num of observation	7337	851	694	786	705	855	983	1232	1231

Note: Unit of variable premium is %. Unit of variable value_tran is million US\$. Premium is the bid price as a percentage of the closing price of the target one week before the announcement. Variable Value-tran is the value of M&A transaction. Variable Acq_ad is a dummy variable set equal to one if the acquirer has financial advisor involving in the current M&A process. Tar_ad is a dummy variable set equal to one if the target firm hire financial advisor in the current M&A process. Relat_ad is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity as well. Cro_border is a dummy variable set equal to one if the M&A transaction is cross-border. Acq_ad_cro is a dummy variable set equal to one if the acquirer has financial advisor involving in the M&A process and the M&A transaction is cross-border. Tar_ad_cro is a dummy variable set equal to one if the target firm has financial advisor and the M&A transaction is cross-border. Relat_ad_cro is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity, and the M&A transaction is cross-border as well.

The U.S has average deal amount of \$US 994 million, followed by that of Germany, U.K. and then Japan. M&A in the U.K. with advisor for the acquiring firms has the highest overall percentage of 73.3%. Germany is then followed by the U.S. with relative higher percentage all through the sample years. Target firm in market-based country with advisors has higher percentage. Relationship banking appears common all across the country in our sample while Germany has highest percentage of cross-border deals through the years. Finally, Germany leads the cross-border deals with acquirer and target firms has financial officer in contrast to domestic transactions. Even though U.K. is followed by Germany as the largest percentage of relationship banking across border, however recently, main-bank market, especially Germany bucks the trend.

5.2. Evidence of Relationship Banking: Premium

Given economic environment change thus affects the micro market structures, premium play essential role in explaining banking relationship. Formation of relationship might decrease information asymmetry thus reduce premium paid for the transaction, and then benefit the existing stockholders. On the other hand, Boone and Mulherin (2007) document possible underestimate of measurement of competition in market takeover prior to public announcement of an acquisition. Liu and Taffler (2008) exam the relation between overconfidence and M&A decisions, while Billett and Qian (2009) confirms

the above linkage established with decreased gains for acquirers. Therefore, comparing M&A completed in main-bank markets, which are characterized by arm's-length relationships, versus market-based countries shed light on the current debate of economic synergy created. All of the models in table 4 show that target firms with advisor involving significant higher premium. This overwhelming result confirms the findings of Allen et al. (2004) and Forte et al. (2010) that target firms benefit from prior intense banks relationship. Moreover, acquiring firms with advisor in cross border transaction involves significant premium as well. The results are consistent to those of Rossi and Volpin (2004) and Bris and Cabolis (2008). Nevertheless interestingly, both acquiring firms and target firms with advisors involved in the deal pay significantly higher premium. However, deals for acquiring firms with advisor and having prior banking relationship established involve lower premium. In model 2 and 4, firms in the U.S. and U.K. involve higher premium, but not in the cross-border deals though.

Table 4: Regression Results

	Model 1	Model 2	Model 3	Model 4
Acq_ad	2.857 (1.68)	2.513 (1.50)	2.704 (1.59)	3.967** (2.58)
Tar_ad	19.09*** (11.52)	10.99*** (6.35)	10.43*** (6.00)	10.81*** (6.88)
Relat_ad	-5.504 (-1.86)	-3.443 (-1.18)	-3.442 (-1.17)	-4.061 (-1.50)
Cro_border	5.372 (1.75)	-4.472 (-1.44)	-5.125 (-1.62)	
Acq_ad_cro	7.080 (1.63)	9.543* (2.22)	8.938* (2.08)	
Tar_ad_cro	-7.975 (-1.90)	-0.766 (-0.18)	-0.341 (-0.08)	
Relat_ad_cro	1.504 (0.19)	-3.180 (-0.41)	-1.970 (-0.26)	
Fin_system		20.13*** (14.18)		19.87*** (14.43)
Duk			17.95*** (7.71)	
Dus			22.02*** (14.42)	
Dger			9.575** (2.66)	
_cons	8.154 (7.70)	1.488 (1.30)	0.803 (0.69)	1.139 (1.02)
N	7337	7337	7337	7337

Note: 1. *t* statistics in parentheses. 2. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ 3. Premium is the bid price as a percentage of the closing price of the target one week before the announcement. Variable Value-tran is the value of M&A transaction. Variable Acq_ad is a dummy variable set equal to one if the acquirer has financial advisor involving in the current M&A process. Tar_ad is a dummy variable set equal to one if the target firm hire financial advisor in the current M&A process. Relat_ad is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity as well. Cro_border is a dummy variable set equal to one if the M&A transaction is cross-border. Acq_ad_cro is a dummy variable set equal to one if the acquirer has financial advisor involving in the M&A process and the M&A transaction is cross-border. Tar_ad_cro is a dummy variable set equal to one if the target firm has financial advisor and the M&A transaction is cross-border. Relat_ad_cro is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity, and the M&A transaction is cross-border as well. Fin_system is a dummy variable set equal to one if the country of the acquirer is United Kingdom or United States. Duk is a dummy variable set equal to one if the acquirer's country is United Kingdom. Dus is a dummy variable set equal to one if the acquirer's country is United States. Dger is a dummy variable set equal to one if the acquirer's country is Germany.

We then construct three portfolios based on the rankings of premium, namely top 30%, mid 40% and bot 30% in table 5 for further test. Acquirers with advisor in the mid 40% portfolio pay higher premium. However, there is discount in merger premium paid for the other two portfolios of firms. The same pattern presents in target firms with advisor and cross-border deals as well. Firms in the U.S. and U.K. pay higher premium, however, not in the bottom 30% portfolio. The results confirm that information acquisition and banking relationship are essential in determining the cost of M&A.

Table 5: Regression Results for Portfolios Based on Premium

	Model 1 (top 30%)	Model 1 (mid 40%)	Model 1 (bot 30%)	Model 2 (top 30%)	Model 2 (mid 40%)	Model 2 (bot 30%)	Model 3 (top 30%)	Model 3 (mid 40%)	Model 3 (bot 30%)	Model 4 (top 30%)	Model 4 (mid 40%)	Model 4 (bot 30%)
Acq_ad	-10.94* (-2.56)	1.792*** (4.96)	-0.894 (-0.78)	-9.312* (-2.16)	1.734*** (4.88)	-0.680 (-0.60)	-9.286* (-2.12)	1.761 (4.92)	-0.290 (-0.25)	-9.451* (-2.39)	1.730*** (5.36)	-0.480 (-0.45)
Tar_ad	-24.41*** (-4.88)	4.555*** (12.92)	-6.799*** (-6.29)	-28.92*** (-5.52)	3.600*** (10.01)	-6.142*** (-5.65)	-28.73*** (-5.47)	3.486*** (9.65)	-6.201*** (-5.71)	-22.16*** (-4.88)	3.649*** (11.26)	-5.811*** (-5.71)
Relat_ad	-10.54 (-1.42)	0.222 (0.38)	-0.135 (-0.06)	-8.891 (-1.20)	0.427 (0.75)	-0.546 (-0.24)	-9.179 (-1.23)	0.435 (0.76)	-0.826 (-0.37)	-9.367 (-1.41)	0.0906 (0.17)	-0.658 (-0.31)
Cro_border	-22.10* (-2.32)	1.536* (2.39)	-6.751*** (-3.96)	-24.77** (-2.59)	0.384 (0.60)	-4.241* (-2.36)	-24.01* (-2.48)	0.222 (0.34)	-3.305 (-1.81)			
Acq_ad_cro	4.057 (0.37)	-0.402 (-0.45)	3.458 (1.10)	3.947 (0.36)	-0.174 (-0.20)	2.521 (0.80)	4.105 (0.37)	-0.225 (-0.26)	2.255 (0.71)			
Tar_ad_cro	19.99 (1.85)	-0.359 (-0.42)	2.988 (0.95)	23.79* (2.19)	0.471 (0.56)	2.442 (0.78)	23.57* (2.17)	0.571 (0.67)	1.991 (0.64)			
Relat_ad_cro	1.320 (0.08)	-2.204 (-1.38)	-2.246 (-0.30)	-2.868 (-0.17)	-2.539 (-1.61)	-1.166 (-0.15)	-3.102 (-0.18)	-2.498 (-1.59)	0.103 (0.01)			
Fin_system				13.06** (2.89)	2.927*** (10.02)	-3.909*** (-4.34)				11.43* (2.56)	2.952*** (10.31)	-4.606*** (-5.46)
Duk							11.82 (1.84)	2.689*** (5.71)	-8.594*** (-4.97)			
Dus							11.83* (2.35)	3.301*** (10.42)	-3.046** (-3.17)			
Dger							-6.100 (-0.61)	1.892** (2.64)	-0.918 (-0.38)			
_cons	93.85*** (21.25)	7.664*** (33.03)	-11.60*** (-23.48)	85.85*** (16.49)	6.483*** (25.24)	-10.78*** (-20.47)	86.80*** (15.92)	6.318*** (24.09)	-10.83*** (-20.39)	80.94*** (16.59)	6.519*** (26.11)	-10.96*** (-21.04)
N	2201	2935	2201	2201	2935	2201	2201	2935	2201	2201	2935	2201

Note: 1. *t* statistics in parentheses. 2. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ 3. Premium is the bid price as a percentage of the closing price of the target one week before the announcement. Firms are ranked by merger premiums and partitioned into three portfolios according to their ranking. Bot 30% portfolio comprises the lowest 30% premium paying firms. Mid 40% portfolio comprises the middle 40% firms. Top30% portfolio comprises the highest 30% firms. Variable Value-tran is the value of M&A transaction. Variable Acq_ad is a dummy variable set equal to one if the acquirer has financial advisor involving in the current M&A process. Tar_ad is a dummy variable set equal to one if the target firm hire financial advisor in the current M&A process. Relat_ad is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity as well. Cro_border is a dummy variable set equal to one if the M&A transaction is cross-border. Acq_ad_cro is a dummy variable set equal to one if the acquirer has financial advisor involving in the M&A process and the M&A transaction is cross-border. Tar_ad_cro is a dummy variable set equal to one if the target firm has financial advisor and the M&A transaction is cross-border. Relat_ad_cro is a dummy variable set equal to one if the acquirer firm has previous bank relationship with lead bank and its lead bank is its financial advisor in its M&A activity, and the M&A transaction is cross-border as well. Fin_system is a dummy variable set equal to one if the country of the acquirer is United Kingdom or United States. Duk is a dummy variable set equal to one if the acquirer's country is United Kingdom. Dus is a dummy variable set equal to one if the acquirer's country is United States. Dger is a dummy variable set equal to one if the acquirer's country is Germany.

6. Concluding Remarks

Most of research on M&A is on the subject of applying US companies or large pool of international countries. In this paper, we provide comparative analysis of merger premium between market-based (United Kingdom and United States) and bank-based (Germany and Japan) countries. We report Japan is the only country where a negative stock price premium in the sample.

Discussing prior banking relationships in M&A as well as examining cross border deals, we drew broad lessons that are helpful in understanding the market behavior in M&A. First, acquiring firms with advisor pay higher premium while target firms with advisors take advantage of swiping synergy from effective reduction of information asymmetry and thus involving significant higher premium. Second, acquirer's long term banking relationship does reduce premium paid when firms are further grouped in portfolios. Third, local M&A deals involve higher premium for both party with advisors, though banking relationship relieves premium paid for acquiring firms. Nevertheless, increased competition in market-based M&A deals prosper higher premium as suggested from previous research. Finally, when firms make cross-border M&A involving relative larger or smaller premium, the magnitude of premium is decreased both in market-based and bank-based countries.

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