Do win-win outcomes exist? A study of cross-border M&A transactions in emerging markets

by

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Abstract

Between 1998 and 2005, we identify 74 cross-border M&A transactions in which international banks acquired ownership stakes in 46 listed banks in emerging market economies (EME). A total of $1,057,515 million of bank assets was acquired for $38,172 million in Latin America, Central and Eastern Europe, and Asia. Using an event study approach, there is scant evidence of win-win situations when joint abnormal return is positive. Whereas abnormal returns to targets are mostly positive and significant, they tend to be offset by negative returns to acquiring banks, which drives joint returns. Econometric results find no evidence that acquisition of majority control leads to higher abnormal returns to target banks; rather, the opposite holds in banking which is inconsistent with evidence from the non-financial sector. Our evidence implies there are considerable perceived risks associated with expanding banking operations into emerging markets, which affects stockmarket valuation of cross-border M&A. Thus, the evidence does not support suggestions of a transfer of wealth from shareholders in emerging markets to their counterparts in industrialised markets.

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1.   Introduction

The international consolidation of the banking industry is following hard on the heels of the extensive domestic consolidation process that has taken place mostly in the US and Europe since the mid-1980s (see Berger et al, 1999, 2000).[2] Throughout the 1990s and into the new millennium, banks from industrialised countries (referred to as international banks) have been acquiring banks in emerging market economies (EME) at an increasing pace mainly via cross-border mergers and acquisitions (M&A). The increase in the level of foreign ownership of domestic banking assets has been dramatic, particularly in the transition economies and some Latin American countries (Bonin et al, 2005). Recent survey evidence reports that international banks are tending to enter EME by acquiring an ownership stake in target institutions (Clarke et al, 2003; BIS, 2004).[3]

Large, relatively poor countries are targets for international banks using cross-border M&A as means to reach a widely spaced population; cross-border M&A is also related positively to shared language and geographical proximity (Buch and DeLong, 2001). Countries that are relatively more open are likely to receive a higher share of cross-border M&A activity (Buch and DeLong, 2001; Focarelli and Pozzolo, 2001). Focarelli and Pozzolo (2001) claim large banks originating from competitive, well regulated domestic markets are more likely to expand overseas (supporting Berger et al, 2000). Cost efficiency is suggested to be more important than the overall degree of economic integration in explaining the internationalisation of the banking industry. Slager (2004) contextualises motives for M&A in terms of the internationalisation of banking. Several motives are cited: banks follow customers to new markets; to increase earnings and diversify risk; to exploit growth potential in host countries; to circumvent limited growth opportunities in highly concentrated home markets; to realise efficiency gains.

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[2] The causes of the consolidation of US and European banking as well as the possible outcomes are discussed by various authors including Berger et al (1999), Berger (2000), Berger et al (2000), Berger et al (2001), Berger and DeYoung (2001), Berger and DeYoung (2002), and Berger et al (2003).

[3] Purchasing an established branch network is one mode by which acquiring banks access underdeveloped, but potentially large, retail banking markets that exist in many EME. Other investment options include taking a minority stake in a target bank and increasing it over time, or entering into a joint venture agreement. We note that hostile takeovers in banking are very rare and foreign bank takeovers are subject to regulations which vary between countries.

Event study methods determine if M&A deals generate value for bank shareholders by yielding an abnormal return around the announcement date. The empirical literature points to mixed evidence from US and European markets. The empirical evidence from the US suggests value gains are distributed in favour of target bank shareholders at the expense of acquiring bank shareholders (see Berger et al, 1999; and Pilloff and Santomero, 1998 for a review of the US literature). However, the latter offset the former implying insignificant joint returns to the combined bank (Houston and Ryngaert, 1994). On the contrary, European deals create value: gains accrue to target bank shareholders with no significant value destruction for acquiring bank shareholders (Cybo-Ottone, 2000; Beitel and Schiereck, 2001). The methodology has been applied to intra financial industry deals, cross-border deals, and pre-and-post risk valuation (see Cybo-Ottone and Murgia, 2000; DeLong, 2001; Amihud et al, 2002).

It is important to determine whether M&A transactions involving acquiring banks from industrialised countries and target banks in emerging markets create value, and how value is distributed between the respective shareholders since distribution may involve a transfer of wealth between countries. Empirical evidence from the non-financial sector shows that the acquisition of majority control in EME firms creates value for shareholders, but value gains are unevenly distributed in favour of shareholders of acquiring firms in industrialised countries which involves a transfer of wealth from EME (Chari et al, 2004). Although the volume of cross-border bank M&A activity in EME is not as extensive as in the non-financial sector - due partly to regulatory restrictions and information asymmetries/the opacity of bank value (Focarelli and Pozzolo, 2001) – the pace of M&A is increasing due to regulatory reforms and technological developments.

Whether the announcement of cross-border bank M&A transactions generates value is an empirical issue. For this purpose, we have identified 74 M&A transactions involving the acquisition of stakes in 46 listed target banks in EME between 1998 and 2005, using M&A transactions reported in *Acquisitions Monthly* with additional information about transactions and participating banks sourced from Thomson Analytics Banker One, Datastream, and BankScope. The transactions take place in three regions: Latin America,

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Central and Eastern Europe, and Asia. In total, $1,057,515 million of EME bank assets were sold for $38,172 million (at 2000 prices). Over 56% of EME bank assets were sold in Asia but at a lower cost to acquiring banks compared to Latin America and CEE. The acquisition of stakes in Latin American banks accounted for more than 72% of the total value of M&A transactions with Latin bank assets the most expensive to buy.[4]

The present study analyses value creation emanating from cross-border bank M&A transactions in EME. Event study methods measure value creation around the announcement date of transactions: we calculate cumulative abnormal returns to target bank shareholders, acquiring bank shareholders, and joint weighted returns (weighted by the market capitalisations of acquiring and target banks), respectively. A win-win situation occurs when joint returns are positive. Subsequently, we employ regression analysis to determine if returns are sensitive to the size of international bank holdings.

The remainder of the paper is organised as follows. Section 2 presents the event study methodology. Sample construction and data analysis are discussed in Section 3. There are two sets of empirical results: Section 4 is divided into two parts: first, cumulative abnormal returns are presented according to several criteria; second; the results from the regression of returns on ownership are shown. Finally, Section 5 concludes.

2. Event study methodology

Typically, three methodologies have been employed to quantify the effects of M&A activity: (1) dynamic efficiency studies (see Berger and Humphrey, 1997); (2) operating performance studies (see Altunbas and Marqués Ibáñez, 2004); and (3) event studies (see Cybo-Ottone and Murgia, 2000, and Pilloff and Santomero, 1998). Since our objective is to quantify whether the announcement of cross-border M&A transactions creates value, the current study belongs to the third category.

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[4] The assets of target banks, the value of deals, and cost per unit of asset for each region are as follows: Latin America ($278,994m, $27,578, $0.0988); CEE ($189,574m, $5,049m, $0.0266); Asia ($588,947m, $5,545m, $0.0094). Source: own calculations from Thomson and BankScope data.

Share price returns are calculated as the logarithmic difference between the share price index at day t and day t-1. The market model – see equation [1] - is used to estimate alpha and beta over an estimation period which spans -392 days to -130 days before the M&A announcement is made (on day 0). Although the choice of estimation period is arbitrary, we select a period commencing eighteen months and ending six months before the announcement date in order not to bias the estimates of alpha and beta with expectations of an impending M&A transaction. Abnormal returns to bank shareholders are measured as the difference between actual returns and predicted returns; the latter is derived using (constant) estimates of alpha and beta from OLS estimation of the market model (see Brown and Warner, 1985). Following convention, abnormal returns to target bank shareholders and acquiring bank shareholders are calculated. A measure of joint returns to the combined bank is constructed by summing the abnormal returns which are weighted by the target bank's share and acquiring bank's share of joint market capitalisation. In order to better approximate returns to international investors, returns are denominated in US dollars (except in a few cases where returns denominated in domestic currency are used. In all cases, market capitalisation must be dollar-denominated).

The market model [1] is estimated for each target bank and acquiring bank. We select national stockmarket indexes as measures of the market but note that other authors have used national banking sector indexes and even the world banking sector index.

$$AR_{it} = R_{it} - \left[\hat{\alpha}_i + \hat{\beta}_i * R_{mt} \right] \qquad [1]$$

where AR_{it} is the abnormal return and R_{it} the raw return to bank i at time t; R_{mt} is the return to the stockmarket m at time t; $\hat{\alpha}_i$ is the estimated intercept and $\hat{\beta}_{it}$ the estimated beta which shows the sensitivity of the returns to each bank to stockmarket returns.

The Brown and Warner (1980) t test statistic is used to determine if cumulative average abnormal returns are statistically significant. For day 0 the test statistic is given by:

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$$\frac{\dfrac{1}{N}\sum_{i=1}^{N}AR_{i0}}{\dfrac{1}{N}\left(\sum_{i=1}^{N}\left[\dfrac{1}{261}\sum_{t=-392}^{-130}(AR_{it}-(\dfrac{1}{262}\sum_{t=-392}^{-130}AR_{it}))^2\right]\right)^{\frac{1}{2}}}$$

Cumulative average abnormal returns are calculated across different event windows. Symmetric and non-symmetric window lengths account for features such as thin trading in EME stock markets and leakage effects prior to official announcements.

3.   Construction of Sample and Data

We compiled the sample of M&A transactions after searching *Acquisitions Monthly* and identifying cross-border transactions involving acquiring banks from industrialised countries and target banks from EME. The 74 transactions precipitated an exchange of ownership rights in 46 EME banks. To supplement our analysis, we sourced information about each transaction from Thomson One Banker Analytics which contains the SDC Mergers and Acquisitions database. We collected data on the value of the transaction, the percentage stake acquired in each transaction – which enabled us to establish a cumulative stake and classify the five types of acquisition with a dummy variable. Additional information was collected on the dollar price paid per share and the method of acquisition (open market purchase, tender offer, privately negotiated purchase, divestitures, stock swap, privatisation, other).

The distribution of M&A transactions is shown in Table 1. The data are constructed to show acquisitions by European, North American, and developed Asian banks in the three emerging market regions: Latin America, Central and Eastern Europe, and Asia. The following features emerge: European banks have been more active purchasers of emerging market bank assets using M&A as a point of entry into these markets. European banks acquired 34 EME banks over 58 separate transactions for $21,565 million whilst US banks acquired 9 banks over 11 deals for $16,480 million. This partly reflects strategic decisions by some US banks with existing presence in emerging markets to concentrate on organic growth rather than engaging in M&A.

Table 1 here

From 1998 to 2005, only four international banks acquired stakes in banks in more than one emerging market region: a US bank, a UK bank, and two Dutch banks. Rather, European (excluding Spanish) banks acquired stakes in CEE targets whilst Spanish banks acquired stakes Latin America. The Spanish acquisitions accounted for 36% of the value of all M&A transactions in Latin America whereas the acquisition of stakes in two Mexican banks by two US banks accounted for 47%. The data suggest European, US, and developed-Asian nation banks are establishing a presence in Asian markets. European banks have acquired stakes in 12 Asian banks whilst US banks and banks from developed Asia acquired stakes in four banks each. More than 56% of the total value of Asian M&A transactions has been spent on acquiring stakes in 7 Korean banks. Although there are restrictions on foreign ownership, international banks have started to acquire stakes in Chinese and Indian targets: we suspect further stakes will be acquired by other banks and stakes will increase when current restrictions are lowered.

Table 2 here

The data are organised according to the size of ownership holdings in Table 2. It shows how international banks enter emerging market banking sectors. Based on the percentage stake acquired in each transaction and the cumulative stake held, we suggest international banks follow five modes of entry: (1) acquisition of majority stake (13 cases); (2) acquisition of minority stake (17 cases); (3) increasing existing minority stake (10 cases); (4) increasing minority stake to majority stake (15 cases); and (5) increasing majority stake (19 cases). Banks increasingly penetrated Latin American and CEE banking systems between 1998 and 2005; cumulatively, they acquired majority control, increased from minority to majority control, or increased majority stakes in 90.48% and 70% of transactions with Latin American and CEE targets, respectively. On the contrary, international banks acquired minority stakes in 52.17% of M&A transactions with Asian targets; the acquisition of majority control was made only in 17.39% of transactions.

4.   Results

The results are presented and discussed in two sub-sections. Section 4.1 classifies cumulative average abnormal returns in four ways to see the effect different factors might have on influencing how stockmarkets evaluate purchases of stakes in emerging market target banks. In section 4.2, a more rigorous examination of the relationship between returns and bank ownership is carried out using regression analysis.

4.1   Analysis of cumulative average abnormal returns

Table 3a-d shows cumulative abnormal returns by region; ownership; acquisition method; and acquirer nationality. Returns to target, acquirer, and combined bank shareholders are shown for different sized event windows. As expected, abnormal returns to target bank shareholders are higher than returns to acquiring bank shareholders: since the acquiring international banks are considerably larger it is their returns driving joint weighted returns. How do the abnormal returns to emerging market banks and the acquirers compare with those found elsewhere in the literature? Generally speaking, abnormal returns to US and European targets tend to be higher than the returns we calculate. For instance, Beitel and Schiereck (2001) report cumulative abnormal returns to European targets of 11.38%, 13.54% and 14.39% for the following event windows [-2, 0], [-2, +2] and [-10, +10]. Similar sized returns have been found in studies of US M&A. In terms of cumulative returns to acquiring banks, our results are consistent with the US and European results; returns are small and often negative. There is mixed evidence of value gains and losses to the combined bank from the US whilst European evidence points to significant value gains. Our evidence from emerging markets is more consistent with US results but the former are driven by returns to considerably larger acquiring banks.

Table 3a here

Cumulative abnormal returns are presented by region (see Table 3a). Whereas returns to Latin American targets are considerably larger than comparative returns to CEE and Asian targets – irrespective of event window length – the data indicate that acquiring banks' stockmarkets do not value taking stakes in Latin banks. Across each event

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window, value is lost and this drives joint returns. On the contrary, returns to acquiring bank shareholders are positive in the cases of CEE and Asian banks; whereas returns are less than 1% for acquisitions of Asian banks, the range between 1-1.5% of CEE banks (for longer window lengths only). We interpret win-win situations as significant positive joint returns to the combined bank: generally, acquisition of stakes in Asian banks yields a win-win outcome whereas it is found in longer window lengths for CEE banks.

Table 3b here

The returns data are expressed according to the size of stake acquired by international banks in their targets. The largest returns to target banks are found when international banks acquire majority control (D1 – but only in the longer windows) and increase an existing minority stake (D3 – but only in the short windows). However, the purchase of stakes which convert international banks' minority holding to a majority yields significant negative returns in all but two windows. The returns to acquiring banks tentatively suggests that stockmarkets positively value the acquisition of majority control (D1) and increase in existing majority holdings (D5) in the case of emerging market bank investments. This produces a joint return of more than 1% when existing majority stakes are increased but acquisition of majority control is mostly insignificant (see Table 3b).

Table 3b here

Tables 3c and d examine returns by the method of acquisition and nationality of acquiring bank. Target returns similar in size to those reported by Beitel and Schiereck (2001) for European banks (see above) are found when emerging market banks are acquired via a tender offer. Returns to targets are relatively large when the method of acquisition is a stock swap, and privately negotiated purchase albeit to a lesser extent. Surprisingly, open market purchases of bank stock leads to very large, negative returns; privatisation also yields negative returns. The data show that only privately negotiated purchases produce a positive and mostly significant gain to acquiring banks and this generates a joint return of around 1% across the different window lengths (see Table 3c).

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Finally, returns are presented according to the nationality of the acquiring bank. Win-win situations are found when US banks and Dutch banks acquire an emerging market target (but not in all windows). There is a contrast in the joint returns: returns are positive and high for longer window lengths for US banks but negative for Dutch banks: yet, returns across the shorter windows are positive and significant for Dutch banks. Whereas UK bank and Spanish bank purchases yield significant returns to target banks, the joint returns are significantly negative due to unfavourable stockmarket reactions in Spain and the UK (see Table 3d).

4.2 Cumulative abnormal returns and ownership in target banks

One of our objectives is to examine the relationship between abnormal returns and the level of stake acquired in emerging market target banks by international banks. In the dataset, we qualify the size of holding purchased at each acquisition and we use this information to construct explanatory variables. As noted above, in the non-financial sector a transfer of wealth from emerging markets to industrialised countries has taken place when majority control is acquired (see Chari et al, 2004). In the case of banking markets, the data presented above suggest the opposite occurs. We formally test the proposition that acquisition of majority control is a determinant of abnormal returns. In constructing the sample, we collected performance data of banks (using financial ratio analysis), country level indicators of macroeconomic performance and environment, and stockmarket trends. Subsequent step-wise regression analysis was used to identify variables of interest. The preferred regression model is presented in equation [2].

$$
\begin{aligned}
\text{CAR}_{it} = {} & \alpha_i + \beta_1 D - \text{Maj}_i + \beta_2 D - \text{First}_i + \beta_3 D - \text{MinMaj}_i + \beta_4 \ln\!\left(T - \text{TA}_{i,t-1}\right) \\
& + \beta_5 \ln\!\left(A - \text{TA}_{i,t-1}\right) + \beta_6 \text{US} + \beta_7 \text{Spain} + \beta_8 \text{Euro} + \beta_9 \text{Open} + \beta_{10}\text{Tender} \\
& + \beta_{11} T - \text{RoE}_{i,t-1} + \beta_{12}\text{CEE} + \beta_{13}\text{Asia} + \beta_{14}\text{Bear} - \text{EME}_{t-0.5} + \beta_{15} D - \text{Yr03} \\
& + \beta_{16}\text{CR}_{t-1} + \beta_{17}\text{INF}_{t-1} + \varepsilon_{it}
\end{aligned}
\qquad [2]
$$

Where CAR_{it} = cumulative abnormal return for bank i in period t ;

D-Maj$_i$ combines D1 and D5 and represents purchase of or increase in majority holding;

D-First$_i$ combines D1 and D2 and represents initial purchase of stake;

D-MinMaj$_i$ is D4 and denotes conversion of minority holding to majority;

T-TA = natural log of (real) assets of target bank in period t -1;

A-TA = natural log of (real) assets of acquiring bank in period t -1;

US = equal to 1 when acquiring bank is from the United States and zero otherwise;

Spain = equals to 1 when acquiring bank is from Spain and zero otherwise;

Euro = equal to 1 when acquiring bank is European (excl. Spain) and zero otherwise;

Open = equals 1 when method of purchase is open market transaction and zero otherwise;

Tender = equal to 1 when method of purchase is tender offer and zero otherwise;

T-RoE = return on equity to target bank in period t -1;

CEE = equal to 1 when target bank is located in C. & E. Europe and zero otherwise;

Asia = equal to 1 when target bank is located in Asia and zero otherwise;

Bear-EME = cumulative fall in EME stockmarkets in six months before announcement;

D-Yr03 = equal to 1 for the year 2003;

CR = 5-firm assets concentration ratio for target banking sector in period t -1;

INF = rate of change in inflation change between period t and t − 1.

Equation [2] is estimated using bank cumulative returns for each of the seven window lengths as dependent variables. Although our primary interest lies in the relationship between returns to target banks and ownership, the model is also estimated for acquiring banks and combined banks. Table 4 provides descriptive statistics. It is immediately noticeable that the mean CAR for target banks is higher with a much larger standard deviation compared with acquiring banks. The average target bank has $14,291 million of assets compared to $459,001 million for the average acquiring bank.

Table 4 here

The results of estimating equation [2] on target bank returns are shown in Table 5a. The model specification explains from 17% to 41% of the variation in target bank returns. The

results strongly suggest that majority purchase significantly lowers target bank returns (but the relationship is insignificant although still negatively signed in some windows). On the contrary, initial purchases appear to raise returns yet the coefficients are insignificant. Converting minority holdings to majority stakes also significantly lowers target returns. Most of the significant relationships are observed in the shorter event windows, which is suggestive of initial adverse reactions tailing off as window lengths increase. The opposite is found with respect to the nationality of the acquiring bank: relationships become more significant over longer window lengths (involving 10 days or more). The method of purchase enters most models significantly with open market purchases lowering returns and tender offers increasing them. As expected, better performing targets (measured by RoE) produce higher returns though the relationship is not significant across all window lengths. An Asian location is associated with significantly lower returns whereas a CEE location lowers returns but only in two windows. Bear markets, heavily concentrated banking sectors, and poor inflation performance all lead to lower returns with the latter most significant.

Table 5a here

Somewhat surprisingly, bank asset size does not enter the models for target returns in a significant fashion. However, in explaining cumulative abnormal returns to acquiring banks, the acquisition of a large target bank in the emerging markets lowers returns but only significantly in the windows [-10, +1] and [-10, +2]. In the latter window, the acquisition of an initial stake in a target also significantly reduces returns whilst moving from minority to majority owner significantly lessens returns in the [-15, +15] window only. The models explain far less of the variation in acquiring bank returns. Of importance are the method of acquisition, and to a lesser extent, acquiring bank nationality since returns are positively significant when US banks enter an emerging market (but only in the two longest windows). As noted earlier, joint returns are driven by acquiring bank returns. Hence, joint returns are influenced by the nationality of the acquiring bank (in shorter windows) and method of acquisition (in longer windows). There is little evidence of a relationship between joint returns and bank ownership.

Tables 5b and c here

5.   Conclusion

We construct a sample of cross-border bank M&A transactions between international banks and target banks in emerging markets covering 74 transactions involving 46 targets between 1998 and 2005. The transactions involved a small number of acquiring European and US banks, and targets from Latin America, CEE, and Asia. Whilst over 50% of bank assets were sold in Asia, Latin American targets accounted for over 72% of the value of transactions. The cost per unit of bank assets is much greater for Latin American targets especially compared with Asian targets, which could reflect the sale of formerly troubled banks following the Asian crisis. It appears international banks have consolidated and increased their majority control in Latin America and CEE whereas they started to enter Asian markets post-1998.

Our analysis of cumulative average abnormal returns shows some consistency with results obtained from the US and Europe. Generally, returns to targets are larger than returns to acquirers. However, due to sizeable discrepancies in the market values of targets and acquirers, returns to the latter drive joint returns to the combined bank. Nevertheless, inter-regional differences in returns are observed: acquisitions of Asian banks tend to produce a win-win situation despite returns to targets being much larger for Latin American targets. Similarly, a win-win occurs when international banks increase existing majority holdings in emerging market targets. The largest returns to targets are found when stakes are acquired via a tender offer; yet, joint returns are significantly positive only when deals are privately negotiated. Win-win situations are sensitive to the nationality of acquiring banks: markets appear to value US and Dutch bank purchases but the results are not consistent across every window length.

The econometric models of target bank returns have reasonable explanatory power. Nevertheless, we cannot observe a positive relationship between international bank ownership and emerging market bank returns, which is inconsistent with evidence from the non-financial sector. Although, the relationships between initial purchases of stakes in

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emerging market banks are positively signed, they are insignificant. On the contrary, majority control and movement from minority to majority owners are often inverse and significant with respect to returns. This suggests there are considerable perceived risks associated with expanding banking operations into emerging markets which are not evident in the non-financial sector. Thus, we find no evidence to support suggestions of a transfer of wealth from shareholders in emerging markets to their counterparts in industrialised markets.

There are few common factors explaining target and acquiring bank returns: method of acquisition and nationality of acquiring bank are significant predictors in both cases. The data show acquiring bank returns are lowered when large targets are purchased. As above, the assumption of additional risk is a likely explanation for this relationship. We suggest stockmarket perceptions regarding cross-border M&A transactions in emerging markets reflect information asymmetries associated with valuing opaque bank assets, and uncertainties associated with investing in banks in financial systems that have been under distress in recent times. In a small number of transactions, ownership rights are limited by regulations, for instance, China and India. Nevertheless, we expect the consolidation of global banking to continue as current regulations on foreign ownership of domestic banks are lowered over time. Similarly, more banks facing increasingly competitive domestic markets, may seek out shareholder value in EME that offer potential for expansion and diversification. As a caveat, we note abnormal return represents market assessment of expected return from M&A transactions. Further study is required to ascertain the market's valuation of, and also the determinants of, longer-term bank performance following cross-border M&A transactions in EME.

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Table 1: Distribution of M&A transactions; by Region, 1998-2005

	No. of deals	No. of targets	Value, $ m	Share of value, %	Average value, $ m
EUR-CEE	18	10	4,144.00	10.86	230.22
EUR-LAT	26	12	14,601.80	38.25	561.61
EUR-ASIA	14	12	2,819.00	7.39	201.36
Asia-Asia	5	3	852.80	2.23	170.56
NA-CEE	3	1	969.50	2.54	323.17
NA-LAT	4	4	13,265.90	34.75	3,316.48
NA-ASIA	4	4	2,244.30	5.88	561.08
Total EME	74	46	38,171.65	100.00	515.83

Table 2: Distribution of M&A transactions; by Ownership Stake, 1998-2005

Holding	Value, $ m	% share	Average, $ m	Deals
D1 – acquire majority ($> 50\%$)	81,608	7.72%	6,278	13
D2 – acquire minority ($< 50\%$)	520,438	49.21%	30,614	17
D3 – increase minority (from $n < 50\%$ to $< 50\%$)	114,202	10.80%	11,420	10
D4 – minority to majority (from $< 50\%$ to $> 50\%$)	152,557	14.43%	10,170	15
D5 – increase majority (from $n > 50\%$)	188,710	17.84%	9,932	19

Table 3a: Cumulative Average Abnormal Returns; by Region (%)

Region	Latin America	CEE	Asia	All Regions
Returns to Target banks				
CAR[-2,0]	4.1956***	0.2663	1.1356**	2.1294***
CAR[-2,1]	3.4930***	1.7890***	1.9309***	2.5239***
CAR[-2,2]	4.5312***	2.9803***	1.7866***	3.2380***
CAR[-10,-1]	3.7582***	0.4946***	0.0152	1.6687***
CAR[-10,2]	7.0863***	2.8545	1.3803	4.1119***
CAR[-10,10]	6.6369***	0.6378***	-0.1898	2.8126***
CAR[-15,15]	4.8556***	0.6680***	-2.6770***	1.3260***
Returns to Acquiring banks				
CAR[-2,0]	-0.2316***	0.4707**	0.1612	0.0898
CAR[-2,1]	-0.4768***	0.3019	0.6866***	0.1058
CAR[-2,2]	-1.3955***	0.3554**	0.6850***	-0.2520***
CAR[-10,-1]	-0.5872***	1.1775***	0.3413***	0.2022***
CAR[-10,2]	-1.9476***	1.5660	0.8849	-0.0701
CAR[-10,10]	-1.4748***	1.2006***	0.2923***	-0.1663***
CAR[-15,15]	-0.4500***	1.4461***	0.3624***	0.3406***
Returns to Combined banks				
CAR[-2,0]	-0.0939	0.2461	0.5987***	0.2178**
CAR[-2,1]	-0.3465***	0.1346	1.0795***	0.2333***
CAR[-2,2]	-1.1443***	0.1598	1.0582***	-0.0897
CAR[-10,-1]	-0.5852***	1.3829***	0.6440***	0.3554***
CAR[-10,2]	-1.7145***	1.6281	1.2344	0.1506
CAR[-10,10]	-1.2377***	0.7292***	0.3775***	-0.1775***
CAR[-15,15]	-0.5178***	0.9203***	-0.1769***	-0.0037

***, **, * statistically significant at 1%, 5% and 10%, respectively.

Table 3b: Cumulative Average Abnormal Returns; by Ownership Stake (%)

Ownership stake	D1	D2	D3	D4	D5
Returns to Target banks					
CAR[-2,0]	2.4169***	2.7961***	6.9518***	-2.3316***	2.5587***
CAR[-2,1]	2.9182***	4.9108***	7.1732***	-4.1859***	3.1925***
CAR[-2,2]	3.6316***	5.1096***	6.1181***	-2.2720***	4.2592***
CAR[-10,-1]	2.4801***	1.9561***	-1.2313***	3.6303***	0.6386***
CAR[-10,2]	6.4345**	5.3357*	3.6286	1.8554	3.3160
CAR[-10,10]	6.0599***	2.3688***	2.7149***	-0.5075***	3.4845***
CAR[-15,15]	5.7613***	1.0143***	0.3096*	-4.7002***	3.5758***
Returns to Acquiring banks					
CAR[-2,0]	0.2023	-0.6311***	-0.0381	0.8081***	0.1454
CAR[-2,1]	0.0838	-0.4491**	0.1679	0.4167**	0.3437**
CAR[-2,2]	0.3756**	-0.5785***	0.1667	-1.1572***	0.0940
CAR[-10,-1]	0.5860***	-0.7914***	-0.0146	-0.7747***	1.6822***
CAR[-10,2]	1.3470	-1.1116	0.1472	-2.7378**	1.8207
CAR[-10,10]	0.8597***	-1.1161***	0.1583	-2.3595***	1.5050***
CAR[-15,15]	1.9112***	-0.4949***	1.8381***	-3.7975***	2.4883***
Returns to Combined banks					
CAR[-2,0]	-0.3105	0.2524	0.2462	0.7831***	0.1165
CAR[-2,1]	-0.5026**	0.4670**	0.5189**	0.4549**	0.2561
CAR[-2,2]	-0.3011*	0.3401**	0.6188***	-0.9871***	0.0544
CAR[-10,-1]	0.6242***	-0.1616	-0.3410**	-0.2245*	1.4075***
CAR[-10,2]	0.6737	0.0671	0.0053	-1.9045	1.5312
CAR[-10,10]	0.0006	-0.0063	0.1027	-2.3346***	1.1083***
CAR[-15,15]	0.5172***	0.1789***	1.9470***	-4.0382***	1.7103***

Note:

D1 indicates the acquisition of majority control.

D2 indicates the acquisition of a minority stake.

D3 indicates the increase of an existing minority stake.

D4 indicates increased ownership from minority to majority.

D5 indicates increasing an existing majority stake.

***, **, * statistically significant at 1%, 5% and 10%, respectively.

Table 3c: Cumulative Average Abnormal Returns; by Type of Acquisition (%)

Type of acquisition	Open market	Tender offer	Private neg	Stock swap	Privatisation	Other
Returns to Target banks						
CAR[-2,0]	-2.0118***	4.6940***	2.2928***	7.7097***	-1.5879**	-1.3096**
CAR[-2,1]	-4.5644***	7.8447***	3.5198***	6.8984***	-1.3480**	-4.2166***
CAR[-2,2]	-6.4300***	10.7396***	3.5606***	7.0092***	-0.4255	-4.5170***
CAR[-10,-1]	-2.9657***	3.3416***	0.6299***	0.4390	-4.2846***	9.0138***
CAR[-10,2]	-9.4030**	13.3619***	3.3040	7.2275*	-3.5229	3.9823
CAR[-10,10]	-9.8522***	11.0897***	2.9383***	8.7419***	-4.5922***	2.3351***
CAR[-15,15]	-12.6598***	10.0020***	0.7579***	8.2070***	-2.9548***	0.5432***
Returns to Acquiring banks						
CAR[-2,0]	0.4633**	0.0016	0.0730	-0.7475**	-0.1092	0.4784
CAR[-2,1]	0.3112*	-0.4783***	0.2909**	-1.3366***	-1.3942***	1.4877***
CAR[-2,2]	-1.0926***	-1.0114***	0.4461***	-2.6575***	-2.9978***	1.8375***
CAR[-10,-1]	-1.3066***	0.5443***	0.8591***	-0.7567***	-0.1404	-0.6956***
CAR[-10,2]	-2.8093**	-0.3054	1.1716	-3.4109*	-4.4129	1.4388
CAR[-10,10]	-3.8709***	0.9899***	0.9698***	-1.8820***	0.5683***	-0.2147*
CAR[-15,15]	-5.3909***	1.7810***	0.7895***	-2.8470***	3.3347***	1.5013***
Returns to Combined banks						
CAR[-2,0]	0.4449**	0.0410	0.5820***	-0.6549**	-0.8367*	0.3096
CAR[-2,1]	0.0913	-0.2526	0.8588***	-1.2904***	-2.2647***	1.2497***
CAR[-2,2]	-1.1817***	-0.6017***	0.9669***	-2.5193***	-3.7747***	1.3945***
CAR[-10,-1]	-1.5184***	0.9406***	0.9998***	-0.5711***	-0.5247**	-0.1497
CAR[-10,2]	-3.1646**	0.4778	1.6615	-2.9163	-5.2094*	1.2178
CAR[-10,10]	-4.6591***	1.0722***	1.3550***	-1.7893***	0.2993*	0.0280
CAR[-15,15]	-6.3224***	1.9977***	0.7282***	-2.6438***	2.9261***	0.6432***

***, **, * statistically significant at 1%, 5% and 10%, respectively.

Table 3d: Cumulative Average Abnormal Returns; by Nationality of Acquirer (%)

Nationality of Acquirers	US	European	Dutch	Spain	UK
Returns to Target banks					
CAR[-2,0]	2.1186***	-0.7347**	3.7503***	2.7291***	5.9066***
CAR[-2,1]	1.5013***	0.3104	6.3440***	2.2118***	4.1524***
CAR[-2,2]	1.2516***	0.9241***	6.9481***	3.7130***	5.2814***
CAR[-10,-1]	3.9580***	0.3125	-3.3150***	2.6099***	5.0400***
CAR[-10,2]	4.3399	1.4086	2.7302	4.7721**	9.9604
CAR[-10,10]	6.2277***	-1.9934***	2.8828***	3.9360***	8.2538***
CAR[-15,15]	3.1551***	-0.3803***	-2.2800***	2.0635***	7.9943***
Returns to Acquiring banks					
CAR[-2,0]	-0.3344	0.2222	0.9572***	0.0693	-0.7539***
CAR[-2,1]	-0.0713	-0.0656	1.9295***	-0.3842**	-1.0611***
CAR[-2,2]	0.0285	0.0142	1.7617***	-1.5606***	-0.8849***
CAR[-10,-1]	1.3583***	1.1437***	0.1932	-1.1833***	0.0605
CAR[-10,2]	1.6947	1.2388	1.3968	-2.8478***	-1.3408
CAR[-10,10]	0.9634***	1.3205***	-0.2687***	-2.1750***	-0.6513***
CAR[-15,15]	1.6219***	1.9707***	0.0161	-1.1362***	-0.8978***
Returns to Combined banks					
CAR[-2,0]	-0.2599	-0.0157	0.5234**	0.1433	-0.5483**
CAR[-2,1]	0.0045	-0.2529	1.3928***	-0.3234**	-0.8090***
CAR[-2,2]	0.1900	-0.2234	1.1576***	-1.3506***	-0.6294***
CAR[-10,-1]	1.3454***	1.4302***	-0.0939	-1.3664***	0.1900
CAR[-10,2]	1.8303	1.2315	0.6351	-2.7923***	-1.0466
CAR[-10,10]	1.1589***	0.9609***	-1.5693***	-1.9487***	-0.8071***
CAR[-15,15]	1.9586***	1.4266***	-1.6333***	-1.2832***	-0.7689***

Note: European excludes transactions involving Dutch, Spanish and British banks.

***, **, * statistically significant at 1%, 5% and 10%, respectively.

Table 4: Descriptive Statistics – Abnormal Returns & Covariates, %

	Mean	Median	Std dev	Minimum	Maximum
Dependent variables					
TCAR[-2,0]	2.1294	1.0641	7.7771	-12.4985	39.8334
TCAR[-2,1]	2.5239	1.1251	10.3660	-36.5000	41.0337
TCAR[-2,2]	3.2380	1.5464	11.9921	-39.1861	41.8326
TCAR[-10,-1]	1.6687	0.1918	9.0055	-22.4191	45.5973
TCAR[-10,2]	4.1119	2.0905	14.9402	-46.9198	43.6999
TCAR[-10,10]	2.8126	2.2372	15.5745	-53.6214	45.1807
TCAR[-15,15]	1.3260	3.1740	17.6767	-60.7135	54.3613
ACAR[-2,0]	0.0898	0.0845	2.6345	-10.1437	7.4755
ACAR[-2,1]	0.1058	0.0363	3.2456	-10.8770	10.5809
ACAR[-2,2]	-0.2520	-0.0447	3.2725	-12.1443	9.6835
ACAR[-10,-1]	0.2022	0.0610	3.9460	-14.0316	9.0708
ACAR[-10,2]	-0.0701	0.0618	5.3185	-18.5929	9.9714
ACAR[-10,10]	-0.1663	-0.2158	5.8528	-17.7270	12.1171
ACAR[-15,15]	0.3406	0.1235	6.9075	-24.0261	20.8729
JCAR[-2,0]	0.2178	0.1342	2.7883	-10.8736	8.2283
JCAR[-2,1]	0.2333	0.2779	3.3539	-11.2072	9.7845
JCAR[-2,2]	-0.0897	0.0315	3.4211	-13.4319	8.6918
JCAR[-10,-1]	0.3554	0.6445	3.9746	-15.0261	9.3512
JCAR[-10,2]	0.1506	0.5943	5.5921	-19.8620	11.0090
JCAR[-10,10]	-0.1775	0.0059	6.0962	-21.6439	16.8358
JCAR[-15,15]	-0.0037	0.4295	7.2477	-30.9182	20.7399
Ownership					
Majority	0.4324	0.0000	0.4954	0.0000	1.0000
Initial purchase	0.4054	0.0000	0.4910	0.0000	1.0000
Min. to maj.	0.2027	0.0000	0.4020	0.0000	1.0000
Bank size ($ million, 2000 prices)					
Target	14,290.7	6,853.0	25,059.1	62.4	184,268.3
Acquirer	459,001.1	408,460.8	260,199.9	613.6	1,276,778.0
Nationality of acquiring bank					
US	0.1351	0.0000	0.3419	0.0000	1.0000
SPA	0.2838	0.0000	0.4508	0.0000	1.0000
Euro-all	0.4595	0.0000	0.4984	0.0000	1.0000
Method of acquisition					
Open	0.1757	0.0000	0.3805	0.0000	1.0000
Tender	0.2432	0.0000	0.4290	0.0000	1.0000
Target profitability					
RoE	4.2760	11.3747	22.6662	-70.6592	35.4463
Geographic region of target					
CEE	0.2838	0.0000	0.4508	0.0000	1.0000
Asia	0.3108	0.0000	0.4628	0.0000	1.0000
Other controls					
Bear market - EME	-10.89	0.00	16.30	-65.54	17.23
Year 2003	0.0946	0.0000	0.2927	0.0000	1.0000
Concentration ratio	0.5664	0.5736	0.0981	0.3630	0.8432
Inflation change	6.78	5.50	5.30	-0.80	35.80

Table 5a: Estimation of Equation [2] - Target Banks

Predictor	TCAR[-2,0]	TCAR[-2,1]	TCAR[-2,2]	TCAR[-10,-1]	TCAR[-10,2]	TCAR[-10,10]	TCAR[-15,15]
Constant	17.050	24.600	8.550	39.230*	45.790	60.580*	19.180
D-Maj	-2.736	-6.901**	-6.160*	-2.312	-6.890*	-3.812	-0.335
D-First	-1.552	1.137	2.125	1.402	4.194	1.165	1.472
D-Minmaj	-9.913***	-14.255***	-11.372***	0.197	-7.984*	-7.788	-9.599
T-TA	0.111	-0.401	0.728	-0.733	-0.330	-0.184	0.587
A-TA	-0.176	0.491	0.904	-0.755	0.271	-0.324	1.303
US	-0.707	-4.740	-7.524	-9.267**	-15.500**	-11.196	-9.556
SPA	-3.885	-5.633	-5.000	-10.630**	-15.461**	-17.185**	-13.131
Euro	-1.989	-7.324*	-9.046*	-10.030**	-16.651***	-16.423***	-12.182
Open	-3.657	-5.246*	-8.153**	-5.706**	-13.256***	-11.661**	-12.613**
Tender	4.393**	8.992***	11.598***	0.767	12.128***	9.160**	9.739*
RoE	0.101**	0.069	0.048	0.076	0.117*	0.105	0.157*
CEE	-6.840**	0.133	2.028	-6.257*	-4.884	-9.335	-8.525
Asia	-7.823**	-6.961*	-5.698	-10.425***	-14.972***	-18.003***	-15.870**
Bear - EME	-3.815	-14.302**	-18.362**	1.645	-17.141*	4.690	0.970
Y03	0.412	7.219*	8.414*	1.883	8.456*	6.669	4.565
Conc	-5.460	-21.720*	-22.320	-6.010	-29.630*	-39.110*	-30.710
INF	-23.130	-46.810**	-45.710*	-48.640**	-91.140***	-83.670**	-58.250
R2-adjusted	19.40%	34.30%	31.80%	17%	41%	33%	17.20%
DW	2.077	2.319	2.274	1.950	2.338	2.573	2.501

Table 5b: Estimation of Equation [2] - Acquiring Banks

Predictor	ACAR[-2,0]	ACAR[-2,1]	ACAR[-2,2]	ACAR[-10,-1]	ACAR[-10,2]	ACAR[-10,10]	ACAR[-15,15]
Constant	-5.548	-6.288	-2.354	16.070	16.830	23.460	36.880*
D-Maj	1.066	1.686	1.201	1.727	2.388	0.663	-0.29
D-First	-0.374	-1.324	-1.407	-1.889	-2.757*	-1.997	-2.37
D-Minmaj	1.509	1.262	0.000	-0.387	-1.626	-2.132	-5.676*
T-TA	-0.010	-0.036	-0.004	-0.763*	-0.904*	-1.029	-1.07
A-TA	0.506	0.655	0.459	-0.123	-0.030	-0.667	-1.36
US	-1.426	-2.148	-1.565	3.211	2.930	5.518*	6.142
SPA	-0.231	-1.964	-2.393	-1.278	-3.192	0.073	0.89
Euro	-0.717	-1.463	-0.916	1.970	1.342	3.484	4.06
Open	0.265	-0.315	-1.226	-1.942	-3.236*	-4.260*	-6.248**
Tender	-0.565	-1.484	-2.041*	-1.065	-2.705*	-0.181	0.17
RoE	0.002	0.015	0.003	0.013	0.010	0.005	0.01
CEE	1.105	0.223	0.557	-0.139	-0.037	0.484	-0.55
Asia	1.560	1.901	1.502	0.041	0.560	0.292	-1.88
Bear - EME	2.373	3.395	3.912	3.084	6.086	-1.233	-0.54
Y03	-0.672	-0.730	-1.150	-1.881	-2.742	-1.335	-1.95
Conc	-2.413	-1.853	-3.340	-13.033*	-11.215	-11.358	-13.64
INF	3.134	8.932	2.142	-0.270	0.310	-7.660	-13.08
R2-adjusted	0.00%	0.00%	0.00%	7.00%	16.10%	1.30%	9.30%
DW	2.172	2.136	2.160	2.270	2.426	2.240	2.27

***, **, * statistically significant at 1%, 5% and 10%, respectively.

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Table 5c: Estimation of Equation [2] - Combined Banks

Predictor	JCAR[-2,0]	JCAR[-2,1]	JCAR[-2,2]	JCAR[-10,-1]	JCAR[-10,2]	JCAR[-10,10]	JCAR[-15,15]
Constant	-0.822	-0.424	4.245	20.430*	24.250*	30.130*	27.31
D-Maj	-0.052	0.229	-0.378	1.030	0.536	-1.123	-1.96
D-First	-0.529	-1.442	-1.611	-1.585	-2.605	-1.831	-2.29
D-Minmaj	0.447	0.083	-1.291	-0.162	-2.127	-3.249	-6.566*
T-TA	-0.046	-0.080	-0.029	-0.702*	-0.848	-0.673	-0.51
A-TA	0.400	0.483	0.255	-0.440	-0.363	-1.069	-0.89
US	-3.077*	-3.793*	-3.283*	1.601	0.286	2.785	4.01
SPA	-1.961	-3.750*	-4.178**	-3.143	-6.091**	-2.337	-0.95
Euro	-2.555*	-3.373**	-3.052*	0.686	-1.442	0.194	1.38
Open	-0.041	-0.881	-1.640	-2.488*	-4.161*	-5.384**	-6.790**
Tender	-0.413	-1.049	-1.298	-0.664	-1.613	0.431	1.22
RoE	0.007	0.019	0.009	0.013	0.015	0.010	0.01
CEE	0.768	0.060	0.440	-0.499	-0.299	0.314	-0.91
Asia	0.987	1.249	0.799	-0.559	-0.518	-0.990	-2.95
Bear - EME	2.542	2.929	3.248	3.729	5.837	-1.367	2.18
Y03	-0.749	-0.785	-0.925	-2.288	-2.948	-1.367	-2.47
Conc	-2.740	-2.419	-4.525	-11.517*	-11.176	-12.230	-10.56
INF	1.181	6.885	-0.510	4.360	2.090	-10.980	-11.24
R2-adjusted	0.00%	0.00%	0.30%	4.40%	10.10%	0.00%	6.00%
DW	2.304	2.308	2.363	2.466	2.565	2.304	2.34

***, **, * statistically significant at 1%, 5% and 10%, respectively.