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# **Analysis of Cross-Border and Domestic Mega-M&As of European Commercial Banks.**

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## **Abstract**

**Purpose** - This paper examines value gains to acquirers in large commercial bank mega-mergers (with transaction values over £1 billion) that occurred in the European Union during the period 1997-2007, distinguishing between domestic and cross-border transactions.

**Design/methodology/approach** - Based on a sample of 62 bank mega-mergers, an event study methodology is employed using a market model to determine cumulative standardised abnormal returns (CSAR) to acquiring banks around the announcement date of merger deals. This is followed by cross-sectional regression to determine specific characteristics driving acquirers' CSAR.

**Findings** - Cross-border bank mergers have been more frequent in recent years, reflecting a growing trend of banking sector consolidation in the EU. However, such mergers are found to yield significant negative announcement period acquirer returns, while domestic deals have marginally negative but insignificant returns. The operational cost efficiency and capital strength of acquiring banks are found to be significant in influencing excess returns.

**Research limitations/Implications** - Constraints on data availability limited the scope for sensitivity analysis and incorporation of target characteristics in the cross-sectional regression of drivers affecting acquirers' CSAR. Further research is aimed to address these issues.

**Practical Implications** - Event study and regression results indicate that potential downside risks are judged by market participants to outweigh the benefits from cross-border M&As in the retail banking market despite evidence of increased financial sector consolidation in the EU.

**Originality/Value** - The study reflects the recent period of increased cross-border banking consolidation in the EU and reveals findings that differ in some respects from previous studies on EU bank M&As.

**Keywords:** European Union; Banking, megamergers, domestic, cross border; standardized abnormal returns

**Paper Type:** Research Paper

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## **1. Introduction**

This paper uses event-study methodology to determine announcement period abnormal returns to acquirers in bank mergers and acquisitions (M&As) that occurred in the European Union (EU) over the period 1997-2007. In line with previous studies for EU banks (e.g. Tourani-Rad and Van Beek, 1999; Cybo-Ottone and Murgia, 2000), we distinguish between domestic and cross-border M&As, but focus principally on acquirers associated with large commercial bank transactions with values over £1bn. Our analysis reflects a period of structural change in the EU banking industry which has undergone significant consolidation leading to a sizable reduction in the number of banks, as a result of the development of the single financial market and the introduction of the Euro. However, in the early years of the single market banking groups in the EU responded to deregulatory measures by involving mainly in domestic M&As trying to consolidate their positions within national borders to face a more competitive environment (Campa and Hernando, 2006). Reducing further legal and regulatory barriers to cross-border banking consolidation has therefore been one of the policy priorities of the European Commission (2005) towards development of the single market for financial services. In response to these measures designed to facilitate greater integration of retail banking markets in the EU, the European Central Bank (ECB, 2008) reports a growing trend in the number and value of cross-border deals relative to domestic transactions. This development in general reflects increased concentration in local banking markets and a desire to pursue an expansionary strategy to gain access in a larger geographical market as a result of greater integration of the European economy (Hernando et al, 2009).

The purpose of this paper is to analyse shareholder value gains to acquirers as a result of these developments leading to greater domestic and cross-border banking consolidation in the EU. Our study adds to the limited but growing body of evidence on shareholder wealth implications for EU bank M&As by reflecting a longer and more recent period of consolidation in the EU banking industry. We concentrate on EU bank mega-mergers (with deal values above £1bn) to ensure that the average acquiring bank is of roughly similar size in domestic and cross-border deals, thus allowing comparisons on a like-for-like basis. Furthermore, we employ an event study methodology to compute cumulative standardised abnormal returns (CSAR) where the abnormal returns are weighted by their standard deviations. This contrasts with the more conventional approach of using standard abnormal returns (AR) in comparing shareholder value. We consider that the use of the CSAR is

justified because of the discrepancy associated with the different degree of event impact in different geographical markets. Our results show that acquisition announcements are generally associated with loss of value for the acquiring banks, which are quite significant in cross-border M&As.

## **2. Literature Review**

The literature examining shareholder wealth associated with bank M&As suggests that financial markets are skeptical about potential value gains upon announcement. Most of the US studies analysing bank mergers find that targets generally gain at the expense of the acquirers, while the combined entities experience insignificant wealth changes (Hawawini and Swary, 1990; Houston and Ryngaert, 1994; Kane, 2000). Some studies, however, find that announcement of bank M&As neither creates nor destroys shareholder value (Hannan and Wolken, 1989; Pilloff and Santomero, 1998), while others find that announcements of certain types of bank M&As do create value. For example, DeLong (2001, 2003) reports negative returns for US bank acquirers, but also find positive combined returns for bank mergers that are both activity and geographically diversifying. The reason for this finding is that the market prices each type of risks differently and will expect a higher return on diversifying mergers than on mergers where both partners engage in similar types of activities.

The existing literature on EU bank merger activity is broadly consistent with the US literature in that the target bank's shareholders experience positive abnormal returns. However, results for the acquiring bank's shareholders seem to vary but mostly they are not significantly different from zero. Tourani-Rad and Van Beek (1999), analyzing a sample of 17 targets and 56 bidding financial institutions (not just banks) find that target shareholders experience positive abnormal returns while the returns to bidders are insignificant. They also find that cross-border mergers do not yield returns that are significantly different from domestic ones. Cybo-Ottone and Murgia (2000) study 54 large European financial deals (including 18 cross-border) between 1988 and 1997 and find positive and significant average returns around the time of announcement. Furthermore, they find that only domestic deals create shareholder value while cross-border deals reveal positive but insignificant abnormal returns. They show that the difference in the results between domestic/cross-border deals is not driven by country-specific effects and their value creating result for domestic deals is attributed to a

sub-sample of mergers between banks and product diversification of banks into insurance. Scholtens and de Wit (2001) compare shareholder wealth effects of bank mergers in Europe to the US and Japan. For Europe, they examine a sample of 17 targets and 20 bidders using event study methodology with a 31-day window, and find that targets realize positive excess returns while the returns to bidders are small, but also significant and positive. Campa and Hernando (2006) look at M&A transactions in the EU financial industry in the period 1998-2002 and find that shareholder returns are positive for targets and slightly negative for acquirers upon announcement of transactions. More recently, Hagendorff et al (2008) analyse the value effects of large banks merger announcements in Europe (in relation to US) and find that acquirers realise a higher return in Europe than in the US. This is explained by the existence of low protection economies prevalent in Europe than the US.

Other studies for Europe focusing on the distinction between domestic and cross-border mergers have also expressed differing opinions on wealth implications. Beitel et al. (2004) examine the value implications of 98 large bank M&A transactions between 1987 and 2000 and find that the overall returns are higher for non-diversifying transactions, particularly by domestic bidders who are involved in previously less merger activities and when the targets show poor past performance. Using regression analyses, they also test different value drivers regarding their influence on the cumulative abnormal return (CAR). Their findings indicate that cross-border deals seem to increase the CAR of the target bank, while the bidders create more value in domestic transactions. Campa and Hernando (2004) look at financial and non-financial M&A transactions over the period 1998-2000 and find that, in the case of cross-border deals, both targets and acquirers receive significantly lower cumulative abnormal returns. However, they report larger value creation from domestic mergers in a regulated (e.g. financial) industry.

Some studies that distinguish between domestic and cross border transactions have also investigated the scope for value gains from geographical or product/activity diversification. The evidence for European banks M&As is generally mixed. Lepetit et al (2004) examine value gains from bank M&As between 1991 and 2001 covering 13 European countries and find positive gains for targets, as well as for transactions involving cross-product diversification and geographic specialization. Ismail and Davidson (2005) find higher abnormal returns in bank-to-bank compared to cross-product deals, and mixed evidence of abnormal returns in domestic and cross border deals, thus providing weak support for

geographical diversification. Lensink and Maslennikova (2007), analysing value gains to acquirers based on a sample of 75 banks from 19 European countries (1996-2004) find value gains in domestic and cross-border deals, although gains to diversifying cross-border deals are insignificant. Finally, Ongena and Penas (2008) investigate the determinants of bondholders' wealth effects of acquirers in domestic and cross border European banks mergers in the periods 1998 -2002 and conclude that the abnormal returns to domestic bondholders is higher than those of the cross border banks. Their study also indicates that banks' bondholders experience abnormal returns of up to 5% higher than those participating in the cross-border mergers when the acquirers' country has a stringent policy of banking regulations.

### **3. Methodology**

This study adopts the event study methodology using a market model with an estimation period of 100 days and a window of (-30, +30) days around the announcement date to determine the abnormal returns to shareholders. The analysis is conducted for both the domestic and cross-border transactions in the sample.

Event study literature offers little by way of consensus on the length of the event window and the judgement is often based on data availability and sampling considerations. Some studies have adopted short event windows of 1-5 days (Andrade et al., 2001; Mulherin and Boone, 2000; Campa and Hernando, 2004, 2006). Others consider a longer window which takes into consideration possible bid revisions and competitions (Conn et al, 2005), thus ensuring that leakage of information (rumour and news) and the reaction of the market that may influence the abnormal returns are captured. A handful of bank M&A studies have used long event windows in estimating abnormal returns. Scholtens and de Wit (2001) and Lepetit et al (2004) applied a 31 day event window, while Cybo-Ottone and Murgia (2000) and Lensink and Maslennikova (2007) considered windows of up to 41 days. The use of even longer windows seems to be more common in non-financial studies. For example, Black et al (2003), Gregory and McCarrison (2004) and Goergen and Renneboog (2004) applied windows of 61 days, while Lowinski et al (2004) used a slightly longer window of 63 days. In a study of UK domestic and cross-border mergers, Aw and Chatterjee (2004) suggest a longer window and estimation period to ensure that there are sufficient observations for statistical accuracy without running any risk of being far from the test period.

Consistent with most previous studies in the literature we estimate abnormal returns ( $AR$ ) using the market model:

$$AR_{jt} = R_{jt} - (\hat{\alpha}_j + \hat{\beta}_j R_{mt})$$

where  $AR_{jt}$  = abnormal return on share  $j$  for each day  $t$  in the event window;  $R_{jt}$  = actual return on share  $j$  for each day  $t$  in the event window;  $R_{mt}$  = return on the market  $m$  for each day  $t$  in the event window;  $\hat{\alpha}_j$  and  $\hat{\beta}_j$  are the intercept and slope estimates of the market model over the estimation period.

The  $AR$  was standardised to cater for the different degree of event impact. This is done by weighing the abnormal returns by the standard deviation. The purpose of the standardization is to ensure that each abnormal return has the same variance (Serra, 2002). Thus, by dividing each firm's abnormal residual by the standard deviation over the estimation period, each residual has an estimated variance of 1 and thus defined by the equation:

$$SAR_{jt} = \frac{AR_{jt}}{\sqrt{S^2 AR_{jt}}}$$

where:  $SAR_{jt}$  = standardised abnormal return for firm  $j$  at time  $t$ ;  $\sqrt{S^2 AR_{jt}}$  = standard deviation of the  $AR$  for the firm  $j$  at the time  $t$ . The variance of  $AR_{jt}$  is given by the formula:

$$\sum_{t=-100}^{-31} \left[ \frac{[(AR_{jt(est. period)} - \overline{AR}_{j(est. period)})^2]}{D_{j-2}} \right] * \left[ 1 + \frac{1}{D_j} + \frac{(R_{mt(event window)} - \overline{R}_m(est. period))^2}{\sum_{t=-100}^{-31} (R_{mt(est. period)} - \overline{R}_m(est. period))^2} \right]$$

where:  $\frac{AR_{jt(est. period)}}{AR_{j(est. period)}} = \overline{AR}$  for firm  $j$  at time  $i$  over the 100 day estimation period;  $D_j$  = number of observed trading day returns for firm  $j$  over the estimation period;  $R_{mt(event window)}$  = return on the market at time  $t$  over the event window;  $R_m(est. period)$  = mean return on the market at time  $t$  over the estimation period;  $R_{mt(est. period)}$  = return on the market at time  $t$  over the estimation period.

Finally, the cumulative standardized abnormal returns ( $CSARs$ ) are calculated for the relevant windows around the period of acquisition and aggregated over the sample of banks to ascertain the abnormal share price effect:

$$CSAR = \sum_{j=1}^N \sum_{t=T-z}^{t=T+x} SAR_{jt}$$

where the window begins at  $T - z$  days and lasts until  $T + x$  days,  $T$  being the day of the acquisition announcement, and  $N$  is the cross-section sample size. To determine the significance of the standardized abnormal returns for each day in the event window aggregated across the sample, the Z-statistics is employed given by

$$\frac{TSAR_t}{\sqrt{\sum_{j=1}^N \frac{D_j - 2}{D_j - 4}}}$$

where  $TSAR_t$  = Total (aggregated) cross-sectional SAR for each day in the event window;  $D_j$  = number of observed trading day returns for firm  $j$  over the estimation period, and  $N$  = number of banks in the sample.

## 4. Results

### 4.1 Data

The starting point in the data collection process was the compilation of a list of all large European Bank M&As in the Zephyr, Bankscope, Thompson Financial and Bankers Almanac databases. These were checked for consistency with a comprehensive list of large publicly traded bank M&As obtained from the Reuters database.

In order to concentrate on mega-M&As, we eliminated all transactions worth less than £1 billion. The sample was restricted to completed, commercial bank to bank transactions. Only bank targets and acquirers within the EU were selected since large M&As have been higher in the EU than elsewhere in the world including the US (Cybo-Ottone and Murgia, 2000). Availability of relevant share prices and accounting data in Bankscope relating to M&As events over the years 1997-2007 restricted our final sample to 62 transactions. To estimate the market model we sourced daily share prices from Yahoo Finance and collected the data for at least 100 days before and 60 days after the announcement date of each transaction. Table 1 shows the number of transactions and the average deal values in the sample by year.

<<Table 1 here>>



As can be seen from Table 1, M&A activity among banks has been more significant in recent years, with the highest number of transactions reaching a peak during 2004 with average value in excess of £17 billion. Figure 1 presents the geographical distribution across the European countries.<sup>1</sup> Italy tops the table with a total of 17 deals followed by France and Spain with 10 each. Of the 62 bank mega-M&As, 19 (31%) are domestic and (43) 69% are cross border, which are mostly among the developed economies of the EU. This shows that while the general trend of consolidation in the European banking market has been towards domestic M&As leading to “domestic champions” (European Commission, 2005), among the bank mega-M&As cross border deals have been higher in number (and volume) than domestic deals. Our finding is consistent with the recent trend reported by the European Central Bank (ECB, 2008), which highlights an increase in cross-border mergers relative to domestic deals. Specifically, the report shows that the value of cross-border deals has been significantly larger than domestic deals in recent years, owing to financial sector integration and falling regulatory barriers across the EU countries.

<<Figure 1 here>>

In Table 2 we provide some key statistics to distinguish between the domestic and cross-border M&As in the pre- and post-merger periods. The key variables of interest are the return on total assets, return on equity, dividend payout, total assets, operating and staff costs, cost to income and total assets/equity ratios with descriptive statistics presented using averages over the period of years covering the pre and post merger periods. The results show that the total assets for both the domestic and cross border samples rose significantly after the mergers, although not much difference is observed in the cost and capitalization ratios. However, cross-border acquirers increased their post-merger dividend payout by 29% while the domestic acquirers reduced their dividend by 57%. This is consistent with the observed reduction in the post-merger profitability of the domestic acquirers, whereas the average profitability of cross-border acquirers rose slightly in the post-merger period.

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<sup>1</sup>The distribution for the cross-border deals in Figure 1 is based on both the acquiring and the target bank. The sample includes, for example, domestic mega-mergers between Credit Lyonnais and Sacam Development in France (valued at US\$50billion), National Westminster and Royal Bank of Scotland in UK (valued at US\$39 billion), Sanpaolo IMI SPA and Banca Intesa SpA in Italy (valued at US\$31billion), and the cross border merger between Abbey National (UK) and Banco Santander Central Hispano SPA of Spain (valued at US\$15billion).

<<Table 2 here>>

#### 4.2 Event study results

Using the event study methodology described above, we obtained the cumulative standardized abnormal returns (CSAR) for bank acquirers involved in domestic and cross-border M&As using a window of [-30, +30] days around the announcement date. The longer horizon window allows sufficient time for the effect of announcement to be absorbed in the market price, including any possible bid revisions and competitions (Conn et al, 2005). Choosing a long window carries the disadvantage that it could obscure the announcement effects where an acquirer is involved in more than one acquisition within the event window. However, none of the deals in our sample are less than three months apart, so the 61 day window seems appropriate.

As explained above, the abnormal returns were standardized (using their respective standard deviations as weights) to cater for the different degree of event impact across the countries. The pattern of CSAR for the entire 61 days event window is depicted in Figure 2 for the cross-border acquirers and in Figure 3 for the domestic acquirers. The volatility of the returns is clearly apparent over a longer period event window, showing the uncertainty in the market's response to price these events as news filter through before and after announcement date. For the cross-border acquirers, the graph of CSAR (Figure 1) drops steep into negative after an initial rise and then rises again before falling back to roughly the same level just before announcement day. The CSAR was at peak of 29.02% on the 25<sup>th</sup> day before falling to over -40% just before announcement, and remained negative after announcement reaching a peak of -41.5% on the 17th day. For the domestic acquirers, in contrast, the graph of CSAR (Figure 2) shows a more sustained positive trend before and after announcement date. The initial gain in CSAR before announcement is followed by a steady fall, which reverts to a steady gain after announcement before eventually stepping downwards. However, none of the cumulative returns for domestic acquirers are significant.

<Figure 2 and 3 here >

Figures 2 and 3 do not reflect the significance of CSARs but illustrate a contrast in the pattern of the returns between cross-border and domestic acquirers. The cross border acquirers have

higher positive returns before but also steeper negative returns before and after announcement date, revealing a greater degree of variability in the pattern of returns. Table 3 shows the number of days in the event window for which cross border acquirers have statistically significant CSAR, based on the Z-statistic, with corresponding results of domestic acquirers shown in the parentheses. Of the 23 days, 5 occurred before announcement (of which only 2 are positive) while 18 occurred after announcement, all of them negative. Domestic acquirers, in contrast, show no significant returns throughout the event window although on the whole there are more negative returns than positive.

<<Table 3 here>>

Some reasons can be adduced as to why there are more significant and negative abnormal returns for the cross border acquirers than for domestic acquirers. In general, acquiring a foreign target may lead to lower wealth for the acquirer's shareholders because of uncertainty surrounding the acquisition of the target. For instance, differences in regulatory and accounting systems, as well as cultural differences among staff or lines of business, may negatively affect the potential for synergistic gains and undermine public confidence, which may adversely affect the share price of the acquiring bank. On the other hand, domestic acquirers are adjudged to possess more knowledge of the local market than foreign acquirers. Das and Sengupta (2001) refer to the importance of asymmetric information as an underlining factor for the disparity in the wealth returns of the domestic and foreign acquirers. As domestic banks are more likely to have better knowledge about the preferences of domestic consumers, their presence in related lines of activity places them in an advantageous position in the market than foreign acquirers, yielding the potential for greater synergistic gains. In this sense, domestic bank M&As are perceived more favourably than cross-border ones from the perspective of the home market.

#### **4.3. Regression Results**

We also examine the effect of specific financial factors on shareholder value for the acquiring banks. The financial factors constitute standard measures of profitability (return on assets and return on equity) and efficiency in cost management (cost-to-income ratio and operational cost) to reflect the operating characteristics and management skills of acquiring banks in the valuation of M&As (e.g. Akhavi et al, 1997; Beital et al, 2004). We also

incorporate a measure of acquirer's capital strength as captured by bank capitalisation (equity/assets), a measure of solvency (income/assets), and a measure of risk captured by loan loss provisions to net interest revenue. Banks may be influenced in M&As for regulatory reasons or as a means to transfer risk which may therefore influence investment returns (Amihud et al, 2002; Valkanov and Kleimeier, 2006; Buch and DeLong, 2008). Furthermore, given the differences observed in the dividend payout between domestic and cross-border acquirers, we also investigate its possible impact on value creation at the time of announcement.<sup>2</sup> The dependent variable is the cumulative standardized abnormal return (CSAR) and the cross-sectional multivariate regression follows the basic linear model

$$CSAR = \beta_0 + \sum \beta_i F_i + \varepsilon$$

where the  $\beta_i$  coefficients represent the effect of independent financial variables  $F_i$ , and  $\varepsilon_i$  is the error term. As the number of domestic deals in the sample is limited, we run the regression on the combined sample and distinguish the effect of domestic and cross-border acquirers using a dummy variable. We check for multicollinearity using the variance inflation factor (VIF) and correct for heteroskedasticity using a form of weighted least squares.

Table 4 presents the results of two regressions. Model 1 considers the influence of return on assets, return on equity, and the cost-to-income ratio, representing the operating efficiency of the acquirer in determining shareholder value. Model 2 adds the influence of additional factors, including risk, capitalization and dividend payout. The object of estimating these two models is to consider whether the influence of operating efficiency (profit and cost) is affected by the inclusion of other factors. In both cases the regression results are shown with "standardized" beta coefficients which depict the relative contribution of the financial factors on M&A value.<sup>3</sup> This effectively amounts to using weighted least squares which is qualitatively similar to OLS but additionally corrects for heterogeneity in the cross-section

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<sup>2</sup> Olson and Pagano (2005) account for the influence of dividend payout ratio as an economically significant determinant on merged banks longer run (buy and hold) stock return performance for the US.

<sup>3</sup> The standardized coefficients suppress the effect of the intercept term without affecting the significance of the estimates, as the regressions are based on transformed variables that are weighted around their means by their respective standard deviations. As such the regression results depict the relative contribution of the explanatory variables to variations in the dependent variable (see, e.g. Gujarati, 2005)

data. Since the excess returns are estimated values, the use of weighted least squares (with the inverse of the standard deviation as the weighting scheme) is preferred to OLS (Campa and Hernando, 2006). Along with the standardized coefficient estimates and their significance values we also present the partial correlations of the explanatory variables and their collinearity statistics (as represented by the variance inflation factor) to indicate that there is no apparent multicollinearity problem affecting the significance of the estimates.<sup>4</sup>

The coefficient estimates reveal the significance of the return on equity and the cost-to-income ratio in both regressions, both of which have a negative impact on acquirers' returns. This suggests that higher cost and profitability of the acquirer has a negative impact on value creation, which renders support for the low efficiency hypothesis that implies the need for management to implement restructuring for potential cost reduction and further improvement of profitability (Akhavien et al, 1997). The influence of acquirer's cost inefficiency is more significant than profitability in this context. The only other significant determinant is the equity/asset ratio suggesting that the capital strength of the acquiring bank affects shareholder value at the time of the announcement, consistent with the economic intuition that well capitalised, more leveraged banks are susceptible to greater degree of investor sentiment. Other factors, such as the risk exposure of the acquiring bank and its dividend payout have no explanatory power on shareholder returns at the time of the announcement. Despite the pre and post-merger differences observed in the dividend payout ratio between domestic and cross-border deals, the influence of the dividend payout is insignificant in affecting shareholder returns. However, this finding may be explained by the relatively short period abnormal returns we consider at the time of announcement, where as the impact of dividend policy is found to be significant in affecting accounting based measures of long run stock return performance of US bank mergers (Olson and Pagano, 2005).

## **5. Conclusion**

This paper has analysed the difference between the announcement period acquirer returns from cross-border and domestic bank M&As in the European Union. The study has focused

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<sup>4</sup> Generally, high correlations among the explanatory variables would indicate high partial correlations and a high variance inflation factor (VIF).

on bank mega-mergers with deal values of over £1 billion. We find that such mega-M&As among publicly traded banks have been more significant in recent years, with more cross-border mergers relative to domestic ones, reflecting a growing trend towards cross-border banking consolidation in recent years.

Using an event windows approach, we calculate abnormal returns for acquiring banks in 62 transactions that occurred between 1997 and 2007, of which 19 (31%) are domestic and 43 (69%) are cross-border. Our study takes a step further from previous studies on EU bank M&As by considering a longer time span for the event window in capturing the market reaction to announcement of mergers and by incorporating standardised abnormal returns in estimating shareholder value, to account for different degrees of event impact in the sample covering different EU countries. In a second step we also analyse the impact of specific acquirer characteristics on their returns using multivariate cross-sectional regression analysis.

Our finding is generally consistent with comparable studies in that domestic transactions yield relatively better returns for acquirers than cross-border transactions (Cybo-Ottone and Murgia, 2000; Beital et al, 2004; Campa and Hernando, 2004; Lensink and Maslennikova, 2007; Ongena and Penas, 2008). However, our results show significantly negative cumulative abnormal returns to acquirers in cross-border transactions, while the returns in domestic transactions are marginally negative but insignificant. Thus we do not find evidence that bank M&As create shareholder value for the acquirers, and the returns for cross-border mergers for most days of the event window are also significantly negative. Given that most of the deals in our sample are among the developed countries of the EU, we associate this result to possible pre-existing conditions in the host market, suggesting difficulties that acquiring banks face in turning around the fortunes of acquired banks (Peek et al, 1999; Berger et al, 2000). Thus potential downside risks are judged by market participants to outweigh the potential benefits from cross-border M&As in the EU retail banking market. One of the downside risks, consistent with our finding from cross-sectional regression, is the acquirers' ability to implement restructuring for cost management and profitability on the acquired bank, which attracts a negative market reaction at the time of announcement. Our analysis of the results suggests that geographical diversification in banking, while important for cross-border banking sector consolidation in the EU, is not rewarding for shareholders of acquiring banks.

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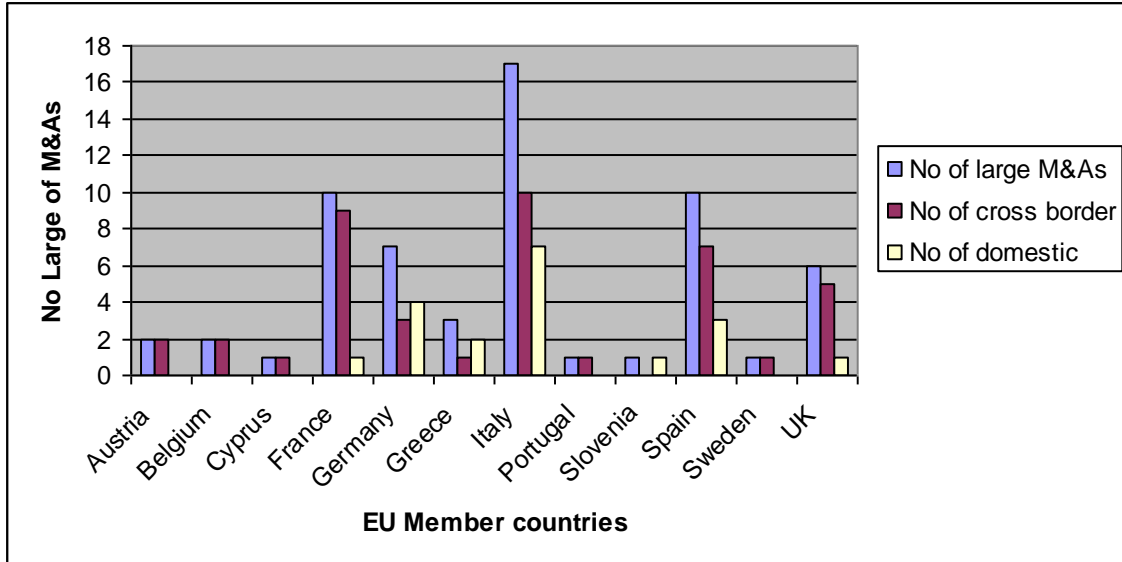


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**Table 1: Value of Bank M&As deals by year, 1997-2007**

Year	No of M&As	Mean (£)	Std. Deviation
1997	2	1,407,231.00	405553.00
1998	6	4,097,761.00	2897554.00
1999	2	1,212,734.00	46858.00
2000	5	1,759,680.00	3117856.00
2001	7	3,762,230.00	309369.00
2002	5	2,163,284.00	265620.00
2003	4	4,122,661.00	591491.00
2004	10	17,012,874.00	8083640.00
2005	7	4,837,064.00	6322846.00
2006	9	4,358,766.00	9309091.00
2007	5	9,393,899.00	13184187.00

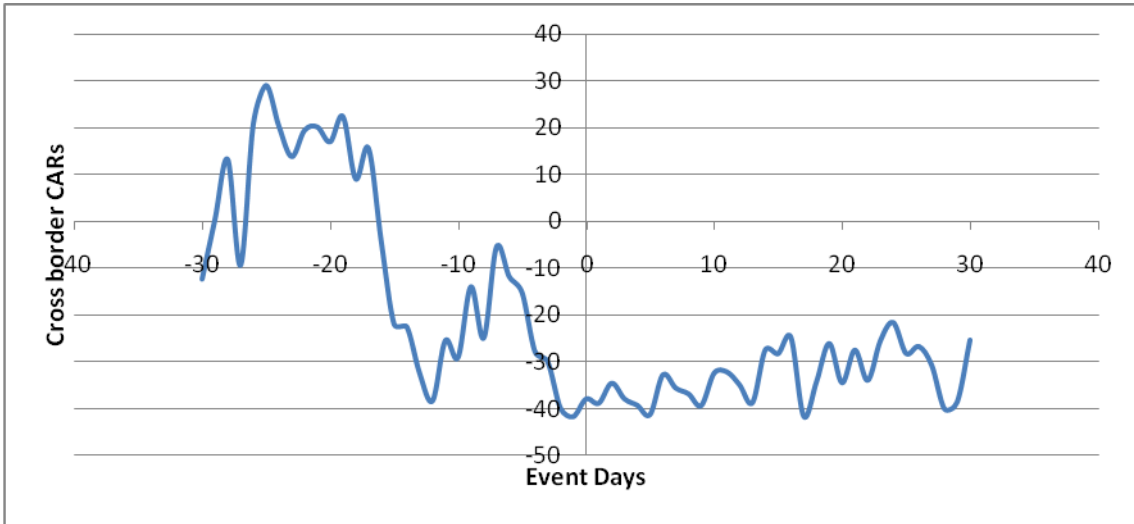
**Figure 1: Mega-M&As within EU countries, 1997-2007 (deal values over of £1bn)**



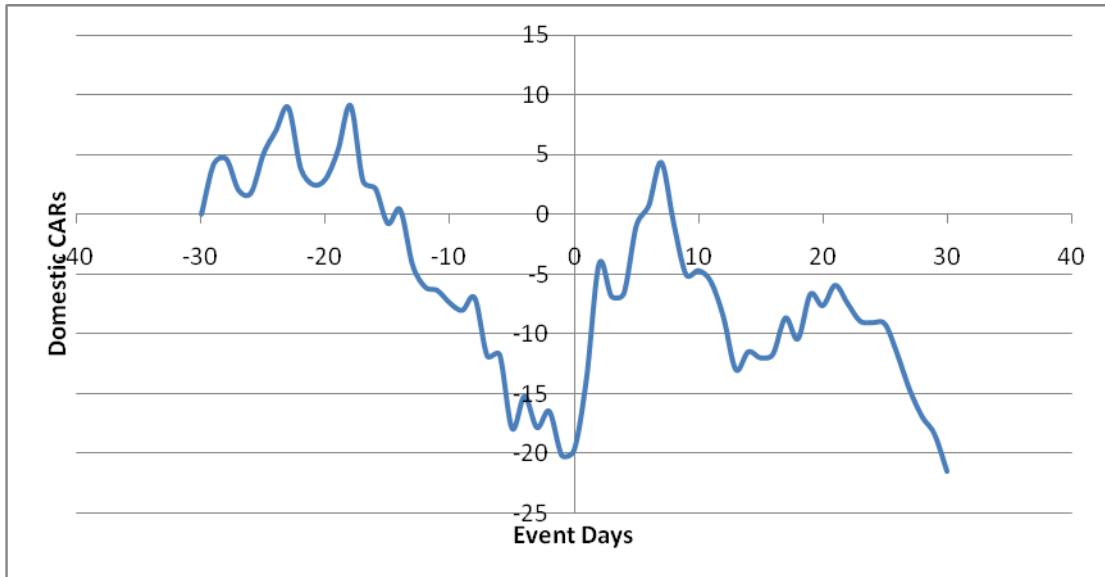
**Table 2 Summary Statistics of M&As in Sample**

Variables	Domestic(£'000)		Cross border(£'000)	
	Mean	SD	Mean	SD
Pre mergers				
Total assets	135,561,649	122,102,150	295,774,836	106,955,579
total capital ratio	10,069	568	11,282	764
operating costs	4,624,813	1,207,331	4,809,116	2,434,091
total staff costs	2,410,752	2,549,229	3,173,842	435,890
total income	6,437,453	1,352,289	6,698,628	2,626,515
costs income ratio	77.71	4.14	73.94	3
return on total assets (ROA)	0.68	0.2	0.59	0.22
total assets/ equity	25.38	2.07	26.06	2.27
return on equity (ROE)	10.77	2.02	13.03	2
ordinary share dividend paid	33,977,266	25,031,718	859,614	351,912
<i>Post mergers</i>				
Total assets	301,910,012	122,074,329	403,465,081	186,452,988
total capital ratio	10,599	1,090	10,556	1,017
operating costs	21,558,160	20,909,312	8,422,235	4,393,688
total staff costs	5,107,105	2,528,289	4,835,667	1,770,800
total income	13,982,734	6,854,933	15,437,432	4,527,017
costs income ratio	75.45	4.28	76.32	5
return on total assets (ROA)	0.3	0.5	0.61	0.14
total assets/ equity	27.2	5.02	30.35	3.62
return on equity (ROE)	9.74	4.01	13.22	4
ordinary share dividend paid	24,142,874	21,882,102	10,845,026	11,577,131

**Figure 1 Cumulative Standardized Abnormal Returns (Cross-border deals)**



**Figure 2 Cumulative Standardized Abnormal Returns (Domestic Deals)**



**Table 3: Announcement Period Returns of Cross Border & Domestic M&A**

Event days	CSAR+	Z-stat	P-Value	Event days	CSAR	Z-Stat	P-Value
<b>-30</b>	-12.25 (-0.74)#	-2.86 (-0.16)	0.004* (-0.87)	<b>18</b>	-34.14 (-10.35)	-2.80 (-0.50)	0.005* (0.61)
<b>-26</b>	20.78 (1.87)	2.17 (0.38)	0.030* (0.71)	<b>21</b>	-27.37 (-5.86)	-2.18 (-0.32)	0.030* (0.75)
<b>-25</b>	29.02 (5.14)	2.76 (0.91)	0.006* (0.36)	<b>22</b>	-33.82 (-7.39)	-2.37 (-0.38)	0.018* (0.71)
<b>-12</b>	-38.19 (-6.01)	-3.11 (-0.49)	0.002* (0.63)	<b>23</b>	-25.37 (-8.85)	-2.07 (-0.49)	0.038* (0.62)
<b>-11</b>	-25.38 (-6.3)	-2.89 (0.33)	0.004* (0.74)	<b>25</b>	-28.09 (-9.101)	-2.43 (-0.38)	0.015* (0.70)
<b>10</b>	-28.03 (-4.63)	-2.27 (-0.33)	0.023* (0.74)	<b>26</b>	-26.61 (-11.63)	-2.68 (-0.52)	0.008* (0.60)
<b>11</b>	-32.03 (-5.57)	-2.23 (-0.3)	0.026* (0.77)	<b>27</b>	-30.57 (-14.62)	-2.47 (-0.58)	0.014* (0.56)
<b>12</b>	-34.81 (-8.5)	-2.66 (-0.45)	0.008* (0.65)	<b>28</b>	-39.90 (-16.86)	-3.03 (-0.69)	0.002* (0.49)
<b>13</b>	-38.6 (-12.9)	-2.83 (-0.68)	0.004* (0.5)	<b>29</b>	-38.41 (-18.33)	-2.96 (-0.75)	0.003* (0.45)
<b>14</b>	-27.3 (11.43)	-2.51 (-0.59)	0.012* (0.55)	<b>30</b>	-25.23 (-21.44)	-2.25 (-0.98)	0.024* (0.33)
<b>15</b>	-28.2 (11.93)	-2.79 (-0.66)	0.005* (0.51)				
<b>16</b>	-24.7 (11.61)	-2.88 (-0.66)	0.003* (0.51)				
<b>17</b>	-41.5 (-8.6)	-3.42 (-0.47)	0.006* (0.64)				

\*Significant at 5% level. Only significant returns are shown.

#Figures in parentheses are for domestic deals

+ Cumulative standardized abnormal returns.

**Table 4 Cross sectional Regression results**

The dependent variable is CSAR of acquirers, measured on (-30,+30) days interval around the announcement day. The independent variables are: return on total assets (ROA), return on equity (ROE), cost to income ratio (COSINCR), operational costs (OPCOST), total income (TINCOME), equity/total assets (EQTASS), loan loss provisions to net interest revenue (RISK), and dividend payout (DIV). The DUMMY variable takes the value of 1 for cross border and 0 for domestic deals.

**Coefficients**

Model	Standardized Coefficients	t	Sig.	Correlations		Collinearity Statistics	
				Partial	Part	VIF	
1	(Constant)	7.968	.000				
	ROA	.187	3.034	.403	.300	.232	1.530
	COSINCR	-.521	-5.713	.000**	-.510	-.436	1.429
	ROE	-.156	-3.676	.251**	-.356	-.281	1.609
2	(Constant)	7.432	.000				
	ROA	.112	2.240	.328	.229	.164	1.657
	COSINCR	-.518	-6.634	.000**	-.571	-.487	1.611
	ROE	-.187	-4.132	.259**	-.397	-.303	1.628
	TINCOME	-.141	-1.582	.117	-.164	-.116	1.477
	EQTASS	.682	4.011	.000**	.105	.074	1.212
	RISK	-.059	-.783	.436	-.082	-.057	1.065
	DIV	-.128	-2.721	.503	-.024	-.128	1.117
	OPCOST	-.324	-2.685	.009*	-.271	-.197	1.298
	DUMMY	-.139	-1.647	.103	-.170	-.121	1.319

\*\*Significant at 0.01%; \*Significant at 0.05%