

“Do acquisitions create value? Evidence from the US and European bank acquisitions during financial crisis”

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Do acquisitions create value? Evidence from the US and the European bank acquisitions during financial crisis

Abstract

This paper investigates the valuation effect on acquiring banks during different windows of events. The research is conducted on the US and the European banks mergers and acquisition during the period of 2004-2010 with special focus on bank mergers during the financial crisis of this decade. During this crisis period when many big banks are also on the verge of bankruptcy, many mergers and acquisitions take place in the United States and in Europe. Using traditional event study methodology, the paper investigates the wealth effect on acquiring banks to understand the market reaction in bank acquisitions announcements. The authors observe those acquisition announcements, on average; create a 0.3% and 0.8% gain in the United States and in the European countries, respectively to the acquiring bank. When authors focus on banks with different size and location, they find that American acquiring banks lose 18% which employ 10,000-100,000 and European banks lose 6% with the same employment size. Furthermore, American acquiring banks lose 17% and 12% that are headquartered in the Western and Midwestern states respectively. The results offer further evidence to the literature that, shareholders of acquiring banks face negative wealth effect even when they acquire other banks during crisis period.

Keywords: acquisitions, mergers, banks, event study, bankruptcy, financial crisis.

JEL Classifications: G21, G34.

Introduction

The purpose of corporate mergers and acquisition is to create overall benefits to shareholders. The gains to the shareholders stem from the performance improvement following the merger in areas such as efficiency improvements, increased market power, or heightened diversification, increased cost efficiency in scale and or scope, capital restructuring, raising capital adequacy, etc. In banking sector, for example, merged banks may offer several products at a lower cost than by separate banks each providing individual products. Cost efficiency can also be improved by bringing more skilled workers through acquisition; acquiring management may enhance revenues by implementing superior pricing strategies, offering more lucrative product mixes, or incorporating sophisticated sales and marketing programs. Finally, banks may increase diversification by either broadening the geographic reach of an institution or increasing the breadth of the offered products and services. Greater diversification also provides value by stabilizing returns, lowering volatility and bankruptcy cost, and increasing capital adequacy in lending practices. Stock price reaction in the announcement of mergers and acquisition is widely researched by academicians and practitioners bring evidence that it creates value for the shareholders. However, merger and acquisition activity due to financial crisis and how and whether they create value to the shareholders either in the short run and or in the long run is an interesting question.

The later part of the decade of this century is one of the historic times when the US has endured a finan-

cial crisis and are still facing recession with economic uncertainty, high unemployment, lower gross domestic product (GDP), large fiscal deficit, historically low interest rate, and no clear direction of whether after so many fiscal and monetary measures, whether the economy would rebound strong in the near future. The decade have endured two bubbles burst in a span of seven years, the tech bubble burst of 2000 and the housing bubble burst of 2007. Moral hazard and illegal lending practice are among the main reasons that ultimately have caused the collapse of real estate market. The affordability level of potential borrowers has been inflated by mortgage bankers by creating a scenario, where borrowers could take a loan without declaring income, known as stated income. The craze of the housing market and its aftermath are no longer unfamiliar to all of us. The crisis has not only shook the credibility of the viable business practice, but also institutions' ability to sustain businesses as they face billions in capital loss in the bubble. Soon enough, all around the globe, the economies of many front running countries have started to stagger and spiral. On August 9, 2007, the largest bank in France, BNP Paribas, stops the redemption of some of its major investment funds. This was the beginning of the financial crisis for European nations along with the US. Harsh reality starts to materialize through the collapse of Lehman Brothers in September 2008 and many others are clearly on the verge of collapse. Many elite banks are being forced to merge or are bought out by other banks because of heavy loan loss provision as borrowers start to default. The European countries and the US soon started to experience banking collapses, while their

gross domestic product, national currency and stock exchanges decrease sharply. A flurry of bank failure becomes the number one reason for many banks to be acquired by other surviving banks where some are at bargain price and others at premium.

In this paper, we focus on analyzing the bank acquisitions of the United States and in some European countries of this decade. Since the most mergers and acquisitions have taken place due to the severe systemic financial crisis, we intend to investigate whether these mergers and acquisitions create value for shareholders. Using recent data from the US and some European nations, we address our question using the standard event study method. To explore in more details, we also analyze data by the employee size of the acquiring banks for the US and Europe, and by the location of the acquiring bank's headquarters for the US to reveal any differences in value effect to shareholders.

The rest of the paper is organized as follows. Section 1 offers a survey of the related literature. Section 2 discusses the data and the methodology used in this paper. Section 3 explains the results of our findings. The last Section presents some concluding remarks and direction for future research.

1. Literature review

There are numerous literature reviews on the effects of acquisition announcements. Here, we discuss some of this literature focusing on bank mergers and acquisition. Moore (1997) studies pre- and post-acquired smaller banks and finds that a larger bank values the smaller bank higher than the smaller bank's management does for the acquisition to occur. Hannan and Pilloff (2007) observe that less profitable banks in the US have the greater chance to be acquired, regardless of the type of acquirer. They also find that inefficiency is positively related to the probability of acquisition for the overall sample. Knapp et al. (2006) and Koetter et al. (2007) also support the hypothesis that acquisitions serve to transfer assets from poorly managed to better managed firms. In contrast, the coefficient on the return on average equity is significantly negative and the one in the cost to income ratio significantly positive (Pasiouras et al., 2007). Hernando, Nieto, and Wall (2009) also suggest that poorly managed banks and larger banks are more likely to be acquired by other banks in the same country. Finally, banks operating in more concentrated markets are less likely to be acquired by other banks in the same country but are more likely to be acquired by banks in other EU-25 countries. Vergos and Christopoulos (2008) analyze bank acquisitions spanning the first ten years of a newly liberalized Greek banking sector and find that

bank acquisitions provide a positive effect in the short run, until twenty days after the announcement, but a negative effect in the long run, until ninety days after the announcement. Soussa and Wheeler (2006) study cross-border bank acquisitions in emerging markets and observe that bank acquisitions in emerging markets are not beneficial, on average, to an acquiring bank. They also observe a principal agent type problem fueling bank acquisitions by the acquiring firm, where there is more incentive for the acquiring firm than to the stockholders. Pilloff and Santomero (1997) offer theories to explain bank acquisitions in the United States from 1986 to 1995, and find that productivity based on the acquiring bank's return on assets (ROA) and return on equity (ROE) do not provide any gain in value. Vander Venet (1996) and Berger (2000) find that bank experience improved risk to reward ratio by engaging in geographical diversification. Zhang (1995) finds that it stabilizes bank's income and offer lower volatility in bank's returns. Berger, DeYoung, Genay and Udell (2000) observe that cross-border mergers offer the potential efficiency gains resulting from economies of scale, scope and product mix. Amihud, DeLong and Saunders (2002) find that in cross-border mergers for the acquiring bank the impact on value tends to be negative, but the effect on risk is highly variable and increase the implicit guarantee provided by safety net arrangements, such as deposit insurance and the lender of last resort, as authorities consider larger, more complex institutions a greater systemic risk. Chari, Ouimet and Tesar (2004) use stock price data for firms in a range of industries to assess the benefits of emerging markets acquisitions by developed country firms. They find that the value creation is positive for both the acquirer and the target firm, with the affect on the target firm being approximately twice as large. Bris and Cabolis (2005) find that in a merger where the acquirer wants to take a 100% stake, then the bigger is the difference in shareholder protection and accounting standards between the target's and acquirer's countries, the higher the premium the acquirer must pay the existing shareholders in the target bank. Rossi and Volpin (2003) also find that the volume of cross-border Mergers and acquisition (M&A) is higher the bigger the difference in investor protection between the acquirer's and target's countries. Brealey and Kaplanis (1996), Yamori (1998), and Buch (2000) all find a positive relationship between host country per capita GDP and bank FDI (Foreign Direct Investment), suggesting potential profits are an important driver. In a European study Altunbas, Molyneux and Thornton (1997) use a theoretical method to simulate mergers between major EU banks by combining

their balance sheets. They find that the aggregate cost base is more likely to increase than decrease. BIS (2001) reports that the main finding of event studies looking at banks' stock price movements around the time of a merger is that, on average, total stockholder value (i.e. the combined value of the bidder's and the target's stock) is not affected by the announcement of an acquisition. Although, on average the stock price of the bidder tends to fall, this is offset by an increase in the stock price of the target. Therefore acquisitions imply a transfer of wealth between the stockholders of the bidder and target banks. Reviewing the findings from the literature we observe that in general national and international bank acquisitions do not create value for the acquirer, although acquisitions of emerging market firms across all sectors generally do.

At their current states of the economy, both the United States and Europe are experiencing in their financial sectors are special and unique in its own right. Although many studies have been conducted on bank acquisitions, not much analyzing has been done on the current financial crisis in the United States and in Europe, as well as how investors perceive the acquisition during the financial crisis period. With the uncertainty surrounding these financial markets, one could wonder how investors would perceive an acquisition and whether the current financial crisis plays a role in how the market would react to these announcements. This paper analyzes the above issues using a methodology similar to Soussa and Wheeler (2006) focusing on the United States and European countries' bank acquisitions to find out the results of these frequently occurring bank acquisitions and provide an insight into investor perception. We also analyze whether the size of the acquiring bank and the location of the acquiring bank's headquarters play a determining factor in creating differential value for the investors.

2. Data and methodology

In this analysis, we consider the Standard and Poor (SPX 500) as the home index for the US and for the Euro index, DJ EURO STOXX 50 is used. In our research we have gathered information for 198 US bank acquisition announcements occurring between the time periods of February 14, 2004 through March 5, 2010 from Federal Deposit Insurance Corporation (FDIC). Out of these 198 acquisitions, 125 are publicly traded, and 65 different corporations are established and have met the criteria needed for this paper. Data selection follow the criterion set as: the corporation acquiring the bank is publicly traded, the acquisition is completed, and the acquirer has stock data available at least one year prior to the announcement and thirty business days after the

announcement. Information gathered from the FDIC website for this research has been assembled in Appendix A, Table 1.

Bank acquisitions in Europe are greatly handled by the country's national government. Many European governments has to bailout their banks, with some countries having all of their major banks in a financial crisis. For example, in Iceland, they have experienced one of the worst banking collapses known in the world. All three of their major banks had difficulty and the Icelandic government had taken over all three banks. Furthermore, speculation of Romania, Hungary, Switzerland, Spain, and the Ukraine are on the brink of bankruptcy (Beckford, 2008). This along with a language barrier, which made it harder to research; data for European Bank acquisitions are fewer than those of the United States. Since 2005, there are 45 bank acquisitions in Europe, with 26 acquisitions meeting the criterion for this analysis. A list was created using information compiled from the escapeartist.com, a listing of all European Banks is in Appendix B, Table 2. In total there are 151 bank acquisition announcements made from the past five years in the United States and throughout Europe have met the criteria for this study.

We utilize the event-study methodology of Soussa and Wheeler (2006) which is an extension of Brown and Warner (1985) to test the hypothesis that a sample's event period abnormal return (AR), or cumulative abnormal return (CAR), is equal to zero, i.e. there is no benefit from bank acquisition. We estimate abnormal returns over various event windows to determine any significance of the abnormal returns created by the acquisition announcement. First, returns for individual bank and two indices are calculated using the following equation:

$$R_{jt} = \text{Ln}(P_{jt}) - \text{Ln}(P_{jt-1}), \quad (1)$$

where P_{jt} is current stock price for security j , or index price for security or index j , and P_{jt-1} are the previous stock price or index price for security or index j . Here, in case of index, we estimate return for the acquiring bank's home stock index and the world stock index. When, we investigate on the US banks, home stock index is SPX and world index is STOXX. On the other hand, when we investigate on the European banks, we consider STOXX as bank's home stock index SPX as the proxy for world index. The abnormal return is estimated as the difference between the realized return and the expected return, where the expected return is calculated based on two factor model using data of one year prior to the announcement and thirty days after the event window using the following model:

$$R_{jt} = \alpha_j + \beta_{hj}RB'_{ht} + \beta_{wj}RB_{wt} + \varepsilon_{jt}, \quad (2)$$

$$E(\varepsilon_{jt}) = 0, \text{Var}(\varepsilon_{jt}) = \sigma_{\varepsilon}^2,$$

where R it is the return of the stock of the acquiring bank, j , at time t . In these equation subscripts h and w represent home and world, while t stands for time. RB_{wt} is the world market stock index, and RB'_{ht} is the remainder of a regression of the home banking stock index (RB'_{ht}) on RB_{wt} . This discharges the effect the world stock market could have on the home banking stock market. β_{hj} and β_{wj} are the coefficients that display the relationship between the acquiring bank's stock index with its home banking and the world market stock indices.

The abnormal return is estimated as the difference between the realized return and the expected return, where the expected return is calculated based on two factor model using equation (2). The model takes the following form:

$$AR_{jt} = R_{jt} - (\alpha_j + \beta_{hj}RB'_{ht} + \beta_{wj}RB_{wt}), \quad (3)$$

where, AR_{jt} is the abnormal return of stock j at time t calculated using equation (2). It is the difference between the realized return, R_{jt} and model based estimated return placed in the bracket ($\alpha_j + \beta_{hj}RB'_{ht} + \beta_{wj}RB_{wt}$). Under the null hypothesis, the abnormal returns are jointly normally determined with a zero conditional mean and conditional variance which, given the large sample size, reduces to $\sigma^2(AR_{jt}) = \sigma_{\varepsilon}^2$. Finally, cumulative abnormal return (CAR) is estimated using following equation for the entire event, and event windows:

$$CAR_j = \sum_{t=T-z}^{T+x} AR_{jt}. \quad (4)$$

Our hypothesis is that if the cross-sectional average CAR is positive and statistically significant, that would show that the acquisition does create value and that investors perceive the benefits of the acquisition to overshadow the costs.

3. Empirical findings

3.1. The US and the European countries bank acquisitions together. Figure 1 illustrates the US and European average CAR, or the average percent change of all bank stocks' ARs from time period of $t - 250$, which is 250 business days before the announcement t , which is the day of the announcement, to 30 business days after the announcement $t + 30$. Based off of the United States' chart, the stocks' abnormal returns of the acquiring banks seems to decrease significantly the days leading towards the announcement, but with modest positive returns by the tenth business day and leading towards an overall positive change in stock prices.

Figures 1 and 2 display the US and the European average cumulative abnormal returns indicate a dramatic decrease days before the announcement. Followed by an increase the day of the announcement, but then a drop in the bank's stock abnormal return occurs by the fifth business day. Recovery occurs, and an overall increase occurs by the twentieth business day. The difference in the European and US figures may be due to the smaller sample size, or that European investors view bank acquisitions with a more positive attitude.

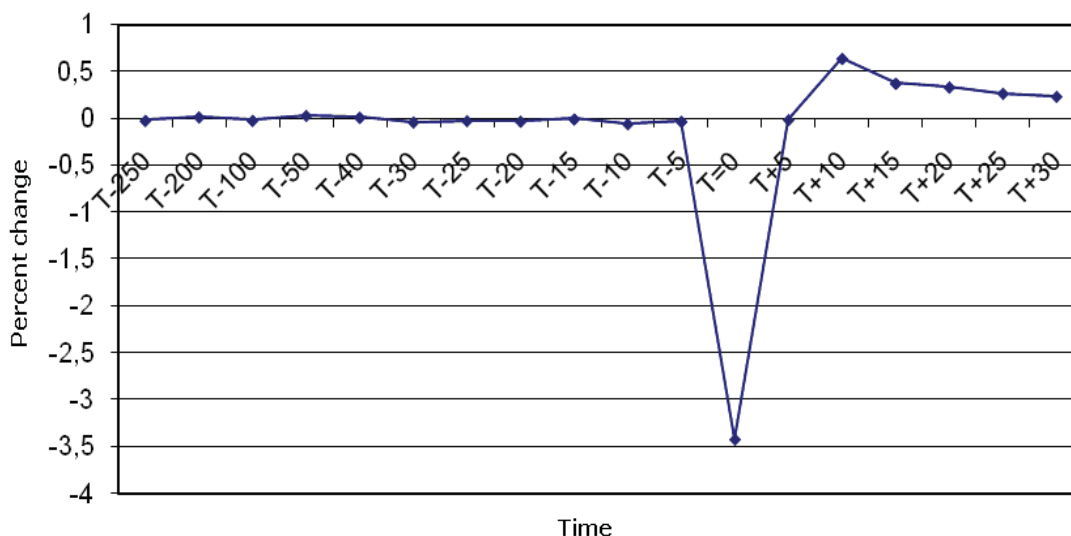


Fig. 1. US average CARs

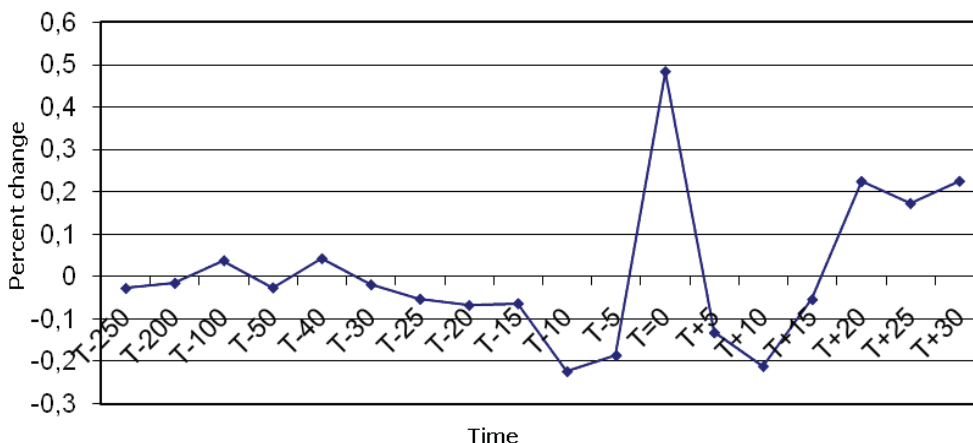


Fig. 2. European average CARs

Looking at these figures, we observe that stock's ARs have an overall positive effect after an announcement, proving that a bank acquisition does create value for the shareholders. However, further investigation is warranted and these returns must be compared to the average stock indices. The one thing we can conclude from these figures is that the average percent change in an acquiring bank's stock AR decreases days leading towards the announcement, but with recovery within a week time after the announcement.

To further investigate our data, we test the US and the European CARs and their significance by running the model over 66 different event windows. The results are presented in Tables 1 and 2.

As it is shown in Tables, the top line of each cell shows the coefficient for the event window, while the second line is the probability that the coefficient is equal to zero, or the p-value. The CARs turn out to be negative for 6 out of the 66 US tested event windows and in 33 out of the 66 European tested event windows. The windows that have the most statistically significant results are those with an asterisk. For the US, it appears to have the most affect and the strongest significance during ten days after the announcement. Whereas, for the European acquisitions, it appears to mostly affect, and have the strongest significance during thirty days after the announcement.

Table 1. US acquisition CARs over various event windows

	T+5	T+10	T+15	T+20	T+25	T+30
T-5	-0.02140853	-0.0158553	0.172444	0.152417	0.118838	0.102568
	0.485932128	0.1989425	0.287989	0.302161	0.333836	0.347793
T-10	-0.03417891	0.2920608	0.159674	0.139647	0.106067	0.089797
	0.456287904	0.1157123	0.177204	0.178827	0.209601	0.21954
T-15	-0.00879793	0.3174418	0.185055	0.165028	0.131448	0.115178
	0.491698731	0.1104027	0.167526	0.162981	0.194546	0.202273
T-20	-0.02058482	0.3056549*	0.173268	0.153241	0.119662	0.103391
	0.472714834	0.0957815	0.135552	0.121729	0.141195	0.138866
T-25	-0.01778092	0.3084588*	0.176072	0.156045	0.122465	0.106195
	0.479260978	0.0849785	0.116871	0.098664	0.113703	0.106667
T-30	-0.02491196	0.3013278*	0.168894	0.148914	0.115334	0.099064
	0.449330806	0.0778216	0.101444	0.079737	0.087551	0.075329
T-40	5.89687E-05	0.3262987*	0.193911	0.173885	0.140305	0.124035
	0.449573855	0.0911427	0.124205	0.101317	0.113206	0.101054
T-50	0.010323639	0.3365634*	0.204176	0.184149	0.15057	0.1343
	0.402889034	0.0951826	0.13254	0.109372	0.123105	0.111928
T-100	-0.01602495	0.3102148*	0.177827	0.157801	0.124221	0.107951
	0.481509146	0.0827528	0.105309	0.079356	0.079751	0.062049
T-200	0.002196352	0.3284361*	0.196049	0.176022	0.142443	0.126173
	0.431314073	0.0912061	0.120974	0.095682	0.099554	0.082609
T-250	-0.01626643	0.3099733*	0.177586	0.157559	0.12398	0.10771
	0.479305743	0.0794437	0.099372	0.073554	0.071474	0.053821

Notes: The top line of each cell indicates the coefficient (sample average CARs). The bottom line represents the probability that the coefficient is statistically significant (the p-value). Coefficients with an asterisk indicate statistical significance at the 10% level. Also note, T = 0 represents the day of the acquisition announcement.

Table 2. European acquisition CARs over various event windows

	$T + 5$	$T + 10$	$T + 15$	$T + 20$	$T + 25$	$T + 30$
$T - 5$	-0.1592	-0.1989	-0.12016	0.018654	-0.00722	0.018988
	0.457707	0.470869	0.383534	0.18324	0.177615	0.137775
$T - 10$	-0.17796	-0.21766	-0.13892	-0.00011	-0.02598	0.000227*
	0.418046	0.480569	0.313947	0.115831	0.102787	0.069392
$T - 15$	-0.09814	-0.13784	-0.0591	0.079714	0.053844	0.080048
	0.440303	0.262924	0.487433	0.180872	0.180903	0.121355
$T - 20$	-0.10018	-0.13988	-0.06115	0.077672	0.051801	0.078006*
	0.444422	0.252296	0.480497	0.159603	0.158226	0.094644
$T - 25$	-0.09275	-0.13245	-0.05372	0.085099	0.059229	0.085434*
	0.427315	0.200862	0.498494	0.162032	0.158886	0.09101
$T - 30$	-0.07587	-0.11557	-0.03684	0.101982	0.076111	0.102316*
	0.396699	0.139396	0.442549	0.166541	0.165753	0.088533
$T - 40$	-0.04519	-0.08489	-0.00616	0.132657	0.106787	0.132992
	0.354473	0.102419	0.318169	0.195194	0.238372	0.140026
$T - 50$	-0.07941	-0.11911	-0.04038	0.098441	0.072571	0.098776*
	0.410178	0.171332	0.446087	0.132766	0.154801	0.080477
$T - 100$	-0.04752	-0.08722	-0.00848	0.130333	0.104463	0.130668
	0.354495	0.087117	0.330172	0.186047	0.201696	0.100494
$T - 200$	-0.07401	-0.11371	-0.03497	0.103845	0.077974	0.104179*
	0.396832	0.130635	0.432944	0.151955	0.140141	0.064661
$T - 250$	-0.08017	-0.11987	-0.04113	0.097682	0.071811	0.098016*
	0.4065	0.141507	0.455238	0.145735	0.127828	0.057886

Notes: The top line of each cell indicates the coefficient (sample average CARs). The bottom line represents the probability that the coefficient is statistically significant (the p-value). Coefficients with an asterisk indicate statistical significance at the 10% level. Also note, $T = 0$ represents the day of the acquisition announcement.

There seems to be a longer lag time for European bank acquisitions, than those compared to the United States, but a larger sample size may be required. The event window used in this paper was chosen to obtain a larger picture of the stock prices of the acquiring bank. Many stock fluctuations have been occurring during recent times, so a larger event window was felt as necessary. This event window differs to those used by Soussa and Wheeler (2006) when they researched a similar study on bank acquisitions in emerging markets. They used an event window of one day before and seven days after the announcement. Furthermore, and according to the figures above, these windows produced no significant value effects, under these current circumstances. Using the event window of ($T - 250$ to $T + 30$), and using the data retrieved, Tables 1 and 2 provide our result: US bank acquisition announcements provide statistically significant value gains of 0.3% in the United States and 0.8% in the European countries on average.

3.2. The size of the acquiring bank. To further analyze our data, and a factor missing from the above results, is if the size of the acquiring bank changes the view of an investor and how they perceive each acquisition. Although, theoretically, a larger bank takes over a smaller bank, the size of the acquiring banks, however, do not play a factor in this study. A larger bank acquisition of a smaller bank could possibly have more leverage in the market and consequently prove to create more value for the firm, as seen by investors. According to data analysis presented in Table 3, out of the 66 different bank corporations as of 2010, 32 of them have less than 1,000 employees, 19 have less than 10,000 employees, 11 have less than 100,000 employees, and 4 of them have less than 300,000 employees. As for our European bank acquisitions, that are presented in Table 4, out of the 13 different banks, only one company has less than 10,000 employees, 9 of them has less than 100,000 employees and 3 companies have less than 200,000 employees.

Table 3. US company by number of employees

US company	No of employees	US Company	No of employees
FCNCA – First Citizens Bancshares Inc.	5006	UCBI – United Community Banks, Inc.	2000
UMPQ – Umpqua Holdings Corp.	1850	FSTF.PK – First State Financial Corp.	139
FMER – FirstMerit Corp.	2575	BBT – BB&T Corp.	32400
COLB – Columbia Banking System Inc.	175	PNC – PNC Financial Services Group Inc.	56000

Table 3 (cont.). US company by number of employees

US company	No of employees	US Company	No of employees
SCBT – S. Carolina Bank & Trust	1000	HFFC – HF Financial Corp.	323
FAF – First American Corp.	31000	CEBK – Central Bancorp Inc.	133
WFSL – Washington Federal Inc.	1058	EVBN – Evans Bancorp, Inc.	249
CYN – City National Corp.	2989	ZION – Zions Bancorporations	10529
HBHC – Hancock Holding Co.	5000	PVTB – PrivateBancorp, Inc.	1040
EFSC – Enterprise Fin. Services Corp.	348	HTFL – Heartland Financial USA Inc.	975
FUBC – 1st United Bancorp. Inc.	208	WIBC – Wilshire Bancorp Inc.	405
SONA – S. Nat. Bancorp of VA	103	CHFN.OB – Charter Financial Corp.	124
MBFI – MB Financial Inc.	5000	OKSB – Southwest Bancorp Inc.	466
NYB – NY Community Bancorp, Inc.	2699	COOPQ.PK – Coop. Bankshares(nd)	212
HBOS – Heritage Financial Group	134	BKUNQ.PK – BankUnited Fin. Corp.(nd)	1504
SBKCC.PK – Security Bank Corp.	500	WSFGQ.PK – WSB Fin.Group(no data)	93
SWBC.OB – Sunwest Bank CA	70	SNV – Synovus Financial Corp.	7949
IBKC – IBERIABANK Corp.	1274	FFCH – First Financial Holdings Inc.	8355
EWBC – East West Bancorp, Inc.	200	STI – SunTrust Banks, Inc.	33000
ALRS.PK – Alerus Financial Corp.	350	WAL – Western Alliance Bancorp.	930
ABCB – Ameris Bancorp.	615	TIBB – TIB Financial Corp.	405
USB – U.S. Bancorp	60000	HFWA – Heritage Financial Corp.	222
FMBI – First Midwest Bancorp. Inc.	1794	WABC – Westamerica Bancorp.	1051
TRCY.PK – TriCity Bankshares Corp.	530	RF – Regions Financial Corp.	30000
SGBK.OB – Stonegate Bank	50	CSFL – CenterState Banks, Inc.	100
CVBF – CVB Financial Corp	1000	BSXT – BOE Fin.Services of VA(no data)	n/a
HBAN – Huntington Bancshares Inc.	10951	FCAL – First CA Fin. Group, Inc.	207
THFF – First Financial Corp.	20000	PRSP – Prosperity Bancshares Inc.	1594
GSBC – Great Southern Bancorp, Inc.	556	FITB – Fifth Third Bancorp.	21901
PACW – PacWest Bancorp.	887	JPM – JPMorgan Chase & Co.	300000
MTB – M&T Bank Corp.	13869	RBS – Royal Bank of Scotland Group	184500
BBVA – Banco Bilbao Vizcaya Argentaria	103721	PULB – Pulaski Financial Corp.	465
		ING – ING Group, N.V.	115000
		AVLY.OB – Allegheny Valley Bancorp.	100
		AWBC – American West Bancorp.	615

Table 4. European company by number of employees

European company	No of employees
DB – Deutsche Bank	78530
BCP – Banque Centrale Populaire	6556
ACA – Credit Agricole S.A.	89172
BARC.L – Barclays	26000
LYG – Llyods Banking Group	107144
CBK – Commerzbank Aktiengesellschaft Co.	43000
LBBW – Landesbank Baden-Wuerttemberg	12000
RBS – Royal Bank of Scotland Group	184500
UCG – UniCredit Group	180000
ISP – Intesa Sanpaolo	10000
BP – Banco Popolare	20982
EUROB – EuroBank	24000
DANSKE – Danske Bank Group	24000

In Figure 3, the average CAR of the US are graphed by the size of the acquiring banks. Notice that all the lines remain in a constant pattern, but during the days leading towards the announcement, the smallest firms, those with less than 1,000 employees, experience a more dramatic decrease in their stock prices. In

Figure 4, the average CAR for the European bank acquisitions by size of firm, follow a similar pattern as those of the US. The smallest firms, those with less than 10,000 employees, seem to provide more volatility around the days of the announcement.

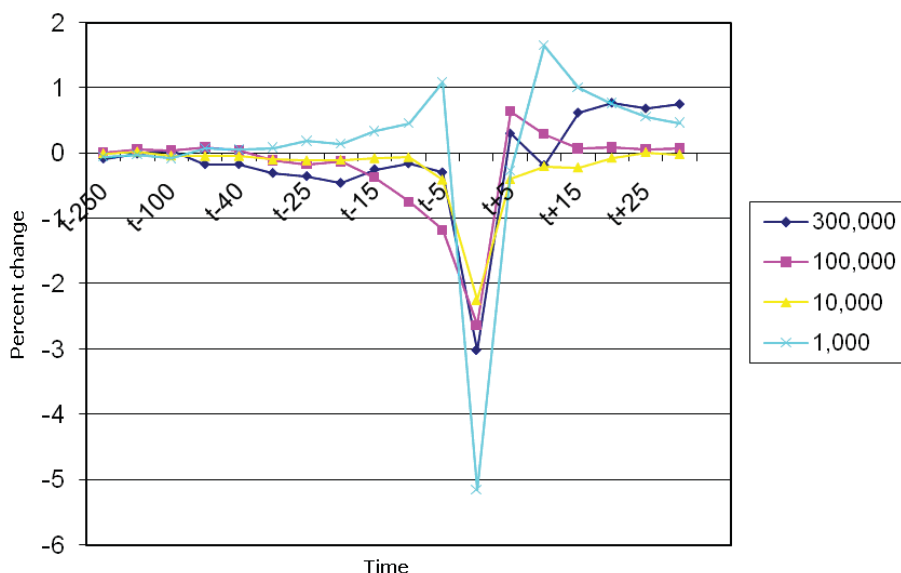


Fig. 3. US average CARs by size of firm

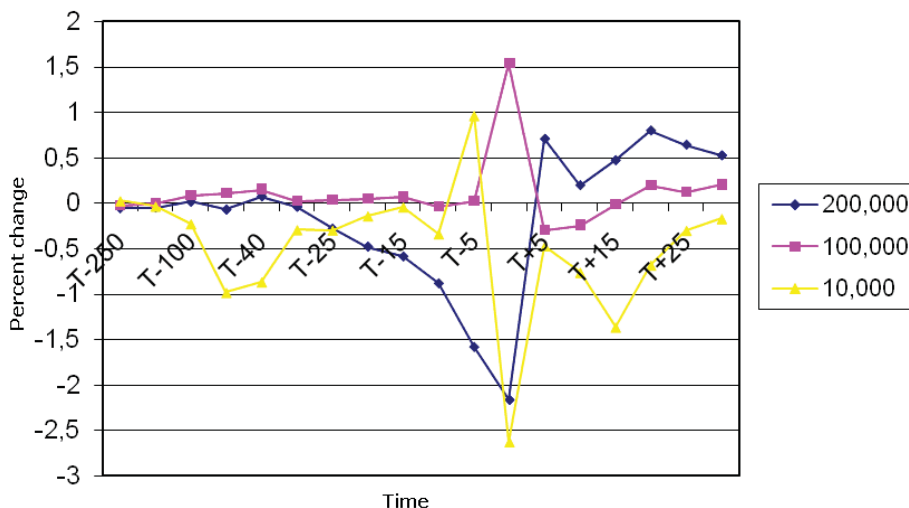


Fig. 4. European average CARs by size of firm

The results of the event analysis are displayed in Table 5. Once again the cross-sectional coefficients are displayed on the top line of each cell, followed by its corresponding p-value below it. As seen, none of the test has proven to be statistically significant, except for corporations with over 10,000 employees, but less than 100,000. The event window is $T - 15$ to $T + 15$, because beyond that the p-values yielded to be very high and thus filtered out. However, result of the test on those corporations between 10,000-100,000 employees, every test has yielded to be statistically significant. When similar tests are run on the European acquisitions by the corporations' size, those yielding statistically significant results are shown

with an asterisk. The only group, which turns out to be significant, is firms with over 100,000 employees, but less than 200,000. This may be an effect of many factors that are beyond the scope of this study, but for those in this study, they have been proven to have a strong relationship. The results of this Section suggest that in the US, and with the chosen event window of $T - 15$ to $T + 15$, corporations with employees from 10,000-100,000 have experienced a statistically significant value loss of 18% on average. As for the European acquisitions, corporations with employees between 100,000-200,000 have experienced a statistically significant value loss of 6% on average.

Table 5. CARs by the size of the acquiring bank corporations in the US

US firms with 300,000 employees				US firms with 100,000 employees			
CARs over various event windows				CARs over various event windows			
	$T + 5$	$T + 10$	$T + 15$		$T + 5$	$T + 10$	$T + 15$
$T - 5$	0.002952	-0.24037	0.162499	$T - 5$	-0.26607*	-0.43569*	-0.55024*
	0.239938	0.405982	0.167922		0.0011	0.001803	0.00449

Table 5 (cont.). CARs by the size of the acquiring bank corporations in the US

US firms with 300,000 employees				US firms with 100,000 employees			
US firms with 300,000 employees				US firms with 100,000 employees			
	T + 5	T + 10	T + 15		T + 5	T + 10	T + 15
T - 10	0.071614	-0.17171	0.231161	T - 10	-0.22064*	-0.22199*	-0.33654*
	0.181376	0.468023	0.267564		0.001203	0.001695	0.005534
T - 15	0.026673	-0.21665	0.18622	T - 15	0.136264*	-0.03336*	-0.14791*
	0.270625	0.448939	0.270625		0.005011	0.019783	0.067768
US firms with 10,000 employees				US Firms with 1,000 employees			
CARs over various event windows				CARs over various event windows			
	T+5	T+10	T+15		T+5	T+10	T+15
T - 5	-0.39177	-0.29344	-0.30297	T - 5	0.409825	1.369519	1.050294
	0.49234	0.328441	0.33227		0.22599	0.391671	0.483543
T - 10	-0.22087	-0.12253	-0.13207	T - 10	0.09504	1.054734	0.735508
	0.192252	0.35337	0.314724		0.229325	0.21704	0.323662
T - 15	-0.2273	-0.12896	-0.1385	T - 15	0.034507	0.9942	0.674975
	0.143977	0.324528	0.271958		0.204283	0.171627	0.254904

Notes: The top line of each cell indicates the coefficient (sample average CARs). The bottom line represents the probability that the coefficient is statistically significant (the p-value). Coefficients with an asterisk indicate statistical significance at the 10% level. Also note, T = 0 represent the day of the acquisitions announcement.

Table 6. CARs by the size of the acquiring bank corporations in the European countries

European firms with 200,000 employees CARs over various event windows			
	T + 5	T + 10	T + 15
T - 5	-0.44064*	-0.69476*	-0.55787*
	0.01343*	0.012186*	0.076095*
T - 10	-0.09181*	-0.34593*	-0.20904*
	0.042756	0.054382	0.136402
T - 15	0.055663*	-0.19846*	-0.06157*
	0.022378	0.025366	0.139226
European firms with 100,000 employees CARs over various event windows			
	T + 5	T + 10	T + 15
T - 5	-0.13932	-0.11208	-0.00049
	0.269909	0.145697	0.455334
T - 10	-0.17081	-0.14356	-0.03197
	0.475479	0.222022	0.31789
T - 15	-0.11643	-0.08919	0.0224
	0.265929	0.12155	0.265929

Notes: The top line of each cell indicates the coefficient (sample average CARs). The bottom line represents the probability that the coefficient is statistically significant (the p-value). Coefficients with an asterisk indicate statistical significance at the 10% level. Also note T = 0 represent the day of the acquisition announcement.

3.3. The location of the acquiring banks' headquarters. During this current financial crisis, many States have been hit harder than others due to the "housing bubble" in the US. Those states with major housing sales, as for instance California, Nevada, Arizona, are among the most affected states for housing sales and during the recession. We explore that, if an acquiring bank is headquartered in a more affected area, how would this affect firm value from their acquisitions? Table 7 presents the information about the banks considered

in this research. Out of the 66 different US bank corporations analyzed in this paper, 13 are headquartered in Western states, 16 are headquartered in Midwestern states, 26 are headquartered in Southern states, 6 have headquarters in Northeastern states and one company is stationed in another part of the country. As for our European bank acquisitions, and in Table 8, out of our 13 bank corporations, 4 companies are headquartered in the United Kingdom, 3 in Germany, 2 in Italy, and one in Morocco, France, Greece, and Denmark.

Table 7. US bank acquisitions by headquarters location

US company	Headquarters	US company	Headquarters
FCNCA – First Citizens Bancshares Inc.	North Carolina	UCBI – United Community Banks, Inc.	Georgia
UMPQ – Umpqua Holdings Corp.	Oregon	FSTF.PK – First State Financial Corp.	Florida
FMER – FirstMerit Corp.	Ohio	BBT – BB&T Corp.	North Carolina
COLB – Columbia Banking System Inc.	Washington	PNC – PNC Financial Services Group Inc.	Pennsylvania

Table 7 (cont.). US bank acquisitions by headquarters location

US company	Headquarters	US company	Headquarters
SCBT – S. Carolina Bank & Trust	South Carolina	HFFC – HF Financial Corp.	South Dakota
FAF – First American Corp.	California	CEBK – Central Bancorp Inc.	Colorado
WFSL – Washington Federal Inc.	Washington	EVBN – Evans Bancorp, Inc.	New York
CYN – City National Corp.	Ohio	ZION – Zions Bancorporations	Utah
HBHC – Hancock Holding Co.	Mississippi	PVTB – PrivateBancorp, Inc.	Illinois
EFSC – Enterprise Fin. Services Corp.	Kansas	HTFL – Heartland Financial USA Inc.	Iowa
FUBC – 1st United Bancorp. Inc.	Florida	WIBC – Wilshire Bancorp Inc.	California
SONA – S. Nat. Bancorp of VA	Virginia	CHFN.OB – Charter Financial Corp.	Georgia
MBFI – MB Financial Inc.	Illinois	OKSB – Southwest Bankcorp Inc.	Oklahoma
NYB – NY Community Bancorp, Inc.	New York	COOPQ.PK – Coop. Bankshares(nd)	North Carolina
HBOS – Heritage Financial Group	Utah	BKUNQ.PK – BankUnited Fin. Corp.(nd)	Florida
SBKCQ.PK – Security Bank Corp.	Arkansas	WSFGQ.PK – WSB Fin.Group(no data)	Washington
SWBC.OB – Sunwest Bank CA	California	SNV – Synovus Financial Corp.	Georgia
IBKC – IBERIABANK Corp.	Louisiana	FFCH – First Financial Holdings Inc.	South Carolina
EWBC – East West Bancorp, Inc.	California	STI – SunTrust Banks, Inc.	Georgia
ALRS.PK – Alerus Financial Corp.	North Dakota	WAL – Western Alliance Bancorp.	Nevada
ABCB – Ameris Bancorp.	Georgia	TIBB – TIB Financial Corp.	Florida
USB – U.S. Bancorp	Minnesota	HFVA – Heritage Financial Corp.	Washington
FMBI – First Midwest Bancorp. Inc.	Illinois	WABC – Westamerica Bancorp.	California
TRCY.PK – TriCity Bankshares Corp.	Wisconsin	RF – Regions Financial Corp.	Alabama
SGBK.OB – Stonegate Bank	Florida	CSFL – CenterState Banks, Inc.	Florida
CVBF – CVB Financial Corp	California	BSXT – BOE Fin.Services of VA(no data)	Virginia
HBAN – Huntington Bancshares Inc.	Ohio	FCAL – First CA Fin. Group, Inc.	California
THFF – First Financial Corp.	Ohio	PRSP – Prosperity Bancshares Inc.	Texas
GSBC – Great Southern Bancorp, Inc.	Missouri	FITB – Fifth Third Bancorp.	Ohio
PACW – PacWest Bancorp.	California	JPM – JPMorgan Chase & Co.	New York
MTB – M&T Bank Corp.	New York	RBS – Royal Bank of Scotland Group	United Kingdom
BBVA – Banco Bilbao Vizcaya Argentaria	Alabama	PULB – Pulaski Financial Corp.	Missouri
		ING – ING Group, N.V.	Georgia
		AVLY.OB – Allegheny Valley Bancorp.	Pennsylvania
		AWBC – American West Bancorp.	Washington

Table 8. European bank acquisitions by headquarters location

Company	Headquarters
DB – Deutsche Bank	Germany
BCP – Banque Centrale Populaire	Morocco
ACA – Credit Agricole S.A.	France
BARC.L – Barclays	United Kingdom
LYG – Llyods Banking Group	United Kingdom
CBK – Commerzbank Aktiengesellschaft Co.	Germany
LBBW – Landesbank Baden-Wuerttemberg	Germany
RBS – Royal Bank of Scotland Group	United Kingdom
UCG – UniCredit Group	United Kingdom
ISP – Intesa Sanpaolo	Italy
BP – Banco Popolare	Italy
EUROB – EuroBank	Greece
DANSKE – Danske Bank Group	Denmark

In Figure 5, the United States average CARs by location are displayed. All the lines seem to follow the same curvature, but the banks located in the Southern

States seem to have a more dramatic decrease and increase leading and following the days of the acquisition announcement.

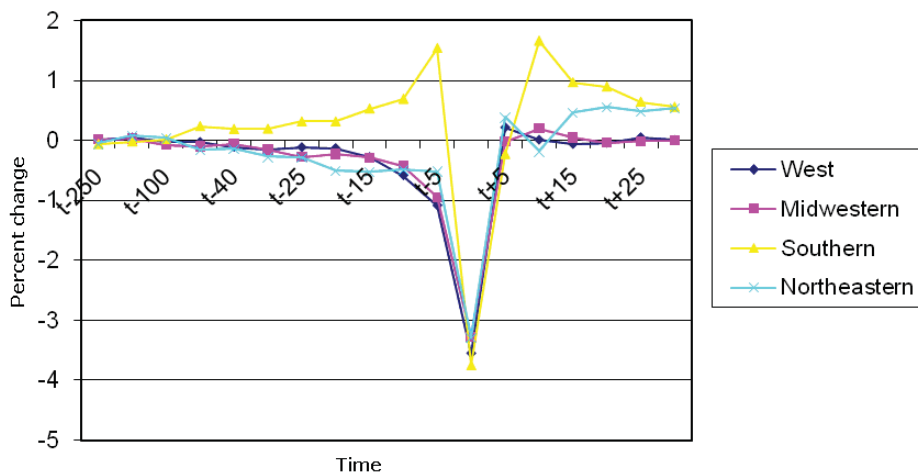


Fig. 5. US average CARs by location

Once again, to strengthen the conclusion of this study, separate tests are run on the acquiring bank’s CARs, but separated by the location of their headquarters. The separate regions in the US are: West (Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico, Alaska, Washington, Oregon, California and Hawaii), Midwest (Wisconsin, Michigan, Illinois, Indiana, Ohio, Missouri, North and South Dakota, Ne-

braska, Kansas, Minnesota and Iowa), South (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North and South Carolina, Georgia, Florida, Kentucky, Tennessee, Mississippi, Alabama, Oklahoma, Texas, Arkansas and Louisiana), and Northeast (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, and New Jersey).

Table 9. CARs by the size of the acquiring bank corporations in region

Headquarters in the West				Headquarters in the Midwest			
CARs over various event windows				CARs over various event windows			
	T + 5	T + 10	T + 15		T + 5	T + 10	T + 15
T - 5	-0.44127*	-0.54407*	-0.57943*	T - 5	-0.48253*	-0.37455*	-0.45136*
	0.012031	0.003938	0.024162		0.006823	0.000499	0.000377
T - 10	-0.19008*	-0.29289*	-0.32824*	T - 10	-0.22035*	-0.11236*	-0.18917*
	0.066099	0.033588	0.070372		0.104809	0.017854	0.021654
T - 15	-0.03927*	-0.14208*	-0.17743*	T - 15	-0.15344*	-0.04545*	-0.12226*
	0.126792	0.120659	0.205353		0.172324	0.031278	0.039994
Headquarters in the South				Headquarters in the North East			
CARs over various event windows				CARs over various event windows			
	T + 5	T + 10	T + 15		T + 5	T + 10	T + 15
T - 5	0.654121	1.596894	1.250765	T - 5	0.654121	-0.35657	-0.0284
	0.178616	0.477731	0.386606		0.122201	0.227019	0.084935
T - 10	0.231565	1.174339	0.828209	T - 10	-0.05453	-0.33937	-0.0112
	0.415276	0.274816	0.187997		0.07195	0.192487	0.109824
T - 15	0.149952	1.092725	0.746596	T - 15	-0.074	-0.35883	-0.03067
	0.163996	0.220555	0.34367		0.112777	0.181175	0.086815

Notes: The top line of each cell indicates the coefficient (sample average CARs). The bottom line represents the probability that the coefficient is statistically significant (the p-value). Coefficients with an asterisk indicate statistical significance at the 10% level. Also note T = 0 represents the day of the acquisition announcement.

The findings of the tests that are run on the corporations by location are displayed in Table 9. The two regions, which yielded statistically significant results, are those corporations headquartered in the West and in the Midwest regions. Unfortunately, with the limited number of data collected for the European acquisitions, a proper and thorough test could not be performed in this Section for those

European acquisitions. Given the event window of T - 15 to T + 15, the results from this Section conclude that in the US, bank corporations which acquired another bank during the last five years and headquartered in the Western states have had a statistically significant loss of 17% on average and it is 12% on average if they are headquartered in a Midwestern state.

Pilloff and Santomero (1996) suggest in their study that based on acquiring bank's accounting data, a bank acquisition does not create corporate value. Comparing the results found in this research and those in Pilloff and Santomero's study, suggest that whether accounting data is used or market reaction is used, the benefits of a bank acquisition are minimal if not negative. Even though different methods are used in each paper, the results are still similar in nature.

Vergos and Christopoulos (2008), in their study, find that acquiring banks experience a positive effect in the short run, but a negative effect in the long run. As observed in our study, this is also true for the United States acquisitions, as they experience benefits on day ten, but these benefits do not occur until thirty day for European acquisitions. A contributing factor for the irregularity could be the shorter event window used for after the announcement, in this paper or for other reasons. For example, Greece has just been liberalized before the study and it is still considered as emerging market, whereas, we investigate some of the developed financial markets.

Comparing the results found in this study with those found in the research done by Soussa and Wheeler (2006) is slightly different. They study bank acquisitions in the early 2000's in emerging markets and discover that bank acquisitions have had an overall negative value effect to the acquiring corporations. They use a smaller event window ($T - 7$ to $T + 7$) study regions of the world where the financial sector is still young and they do not use data during the current financial crisis. The event window used in our research is much larger ($T - 250$ to $T + 30$) and our positive value findings are not apparent until ten business day in the US and thirty business day in European countries.

Concluding remarks

This research analyzes bank acquisition announcements and their impact on the value of acquiring banks in the US and Europe. It appears to have a positive effect to the acquirer and it may be inter-

preted as bargain hunting pays off. Overall, the market perceives the bank acquisition as having a minimal, yet positive value effect to the acquiring bank, on average, 0.3% and 0.8% in the US and in Europe, respectively. However, when further tests are conducted based on the size of the acquiring banks and the location of their headquarters, it is revealed that certain demographics are perceived as having a more risky situation. When a bank in the US has employees from 10,000-100,000 and when their headquarters is in the West or Midwest, they have a higher chance of being perceived as a bigger risk, on average, to investors with a statistically significant loss of 18%, 17% and 12%, respectively. This is also true for European corporations with employees from 100,000-200,000, where on average; they experience a statistically significant value loss.

A factor that could have affected the outcome of this study is the possibility of different views of bank acquisitions in different countries. The ideas and beliefs of the respecting countries about acquisitions are not taken into consideration in this event study. As stated earlier, the financial sector in Ireland, the United Kingdom and France seems to be built differently than the financial sector of the US. In the US, there are hundreds of different banks. In each of the European countries studied in this paper, there are on average only about ten to twenty different banks operating in each country. The occurrence of a bank acquisition happening in these European countries is far less occurring than that in the US. Furthermore, during these tough economic times, the European government in these countries has played a more active role in bailing out these troubled banks than in the US. As a result, a bank acquisition in the US may not seem as such an enormous risk as a bank acquisition in these European countries, under regular times.

One possible direction for future research is to gather larger data base from the European nations and also review the longer window of stock price reaction to see if there are values created for shareholders as it seems to have short term positive effect on value of firms in the US and Europe.

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Appendix A. US bank acquisitions used in this study

Table 1. US bank acquisitions

	Date	Acquiring bank	Acquired bank	Location of acquisition	Ticker symbol of acquiring bank
1	5-Mar-10	FDIC	Centennial Bank	Ogden, UT	N/A
2	5-Mar-10	National Deposit Institution (FDIC)	Waterfield Bank	Germantown, MD	N/A
3	5-Mar-10	Heartland Bank & Trust Company	Bank of Illinois	Normal, IL	Private
4	5-Mar-10	First Citizens Bank & Trust Co.	Sun American Bank	Boca Raton, FL	FCNCA – First Citizens Bancshares Inc.
5	26-Feb-10	Umpqua Bank	Rainier Pacific Bank	Tacoma, WA	UMPQ – Umpqua Holdings Corp.
6	26-Feb-10	Heritage Bank of Nevada	Carson River Community Bank	Carson City, NV	Private
7	19-Feb-10	OneWest Bank	La Jolla Bank, FSB	La Jolla, CA	Private
8	19-Feb-10	FirstMerit Bank, N.A.	George Washington Savings Bank	Orland Park, IL	FMER – FirstMerit Corp.
9	19-Feb-10	Community National Bank	The La Coste National Bank	La Coste, TX	Private
1	19-Feb-10	Mutual of Omaha Bank	Marco Community Bank	Marco Island, FL	Private
1	5-Feb-10	Community Development Bank, FSB	1st American State Bank of Minnesota	Hancock, MN	Private
1	29-Jan-10	Columbia State Bank	American Marine Bank	Bainbridge Island, WA	COLB – Columbia Banking System Inc.
1	29-Jan-10	First Citizens Bank & Trust Co.	First Regional Bank	Los Angeles, CA	FCNCA – First Citizens Bancshares Inc.
1	29-Jan-10	SCBT National Association	Community Bank and Trust	Cornelia, GA	SCBT – S. Carolina Bank & Trust
1	29-Jan-10	United Valley Bank	Marshall Bank, N.A.	Hallock, MN	Private
1	29-Jan-10	Premiere American Bank, N.A.	Florida Community Bank	Immokalee, FL	Private
1	29-Jan-10	Community and Southern Bank	First National Bank of Georgia	Carrollton, GA	Private
1	22-Jan-10	Columbia State Bank	Columbia River Bank	The Dallas, OR	COLB – Columbia Banking System Inc.
1	22-Jan-10	Umpqua Bank	Evergreen Bank	Seattle, WA	UMPQ – Umpqua Holdings Corp.
2	22-Jan-10	Beal Bank	Charter Bank	Sante Fe, NM	Private
2	22-Jan-10	Sunflower Bank, N.A.	Bank of Leeton	Leeton, MO	Private
2	22-Jan-10	Bond Street Holdings, LLC	Premier American Bank	Miami, FL	Private
2	15-Jan-10	Deposit Ins. National Bank (FDIC)	Barnes Banking Company	Kaysville, UT	N/A
2	15-Jan-10	First State Bank of St. Joseph	St. Stephen State Bank	St. Stephen, MN	Private
2	15-Jan-10	First American Bank	Town Community Bank & Trust	Antioch, IL	FAF – First American Corp.
2	8-Jan-10	Wash. Fed. Savings and Loan Assoc.	Horizon Bank	Bellingham, WA	WFSL – Washington Federal Inc.
2	18-Dec-09	OneWest Bank, FSB	First Federal Bank of California, F.S.B.	Santa Monica, CA	Private
2	18-Dec-09	City National Bank	Imperial Capital Bank	La Jolla, CA	CYN – City National Corp.
2	18-Dec-09	Bridge Bank (FDIC)	Independent Bankers' Bank	Springfield, IL	N/A
3	18-Dec-09	Beal Bank	New South Federal Savings Bank	Irondale, AL	Private
3	18-Dec-09	Deposit Ins. National Bank (FDIC)	Citizens State Bank	New Baltimore, MI	N/A
	18-Dec-09	Hancock Bank	Peoples First Community Bank	Panama City, FL	HBHC – Hancock Holding Co.
	18-Dec-09	FDIC	RockBridge Commercial Bank	Atlanta, GA	N/A
3	11-Dec-09	Arvest Bank	Solutions Bank	Overland Park, KS	Private
3	11-Dec-09	Enterprise Bank & Trust	Valley Capital Bank, N.A.	Mesa, AZ	EFSC – Enterprise Fin. Services Corp.
3	11-Dec-09	1st United Bank	Republic Federal Bank, N.A.	Miami, FL	FUBC – 1st United Bancorp. Inc.
3	4-Dec-09	Sonabank	Greater Atlantic Bank	Reston, VA	SONA – S. Nat. Bancorp of VA
3	4-Dec-09	MB Financial Bank, N.A.	Benchmark Bank	Aurora, IL	MBFI – MB Financial Inc.
3	4-Dec-09	New York Community Bank	AmTrust Bank	Cleveland, OH	NYB – NY Community Bancorp, Inc.
4	4-Dec-09	Heritage Bank of the South	The Tattnall Bank	Reidsville, GA	HBOS – Heritage Financial Group
4	4-Dec-09	State Bank and Trust Company	First Security National Bank	Norcross, GA	SBKQ.PK – Security Bank Corp.
4	4-Dec-09	State Bank and Trust Company	The Buckhead Community Bank	Atlanta, GA	SBKQ.PK – Security Bank Corp.

Table 1 (cont.). US bank acquisitions

	Date	Acquiring bank	Acquired bank	Location of acquisition	Ticker symbol of acquiring bank
4	20-Nov-09	Central Bank	Commerce Bank of Southwest Florida	Fort Myers, FL	Private
4	13-Nov-09	Sunwest Bank	Pacific Coast National Bank	San Clemente, CA	SWBC.OB – Sunwest Bank CA
	13-Nov-09	IBERIABANK	Orion Bank	Naples, FL	IBKC – IBERIABANK Corp.
4	13-Nov-09	IBERIABANK	Century Bank, F.S.B.	Sarasota, FL	IBKC – IBERIABANK Corp.
	6-Nov-09	East West Bank	United Commercial Bank	San Francisco, CA	EWBC – East West Bancorp, Inc.
4	6-Nov-09	Central Bank of Kansas City	Gateway Bank of St. Louis	St. Louis, MO	Private
4	6-Nov-09	Alerus Financial, N.A.	Prosperan Bank	Oakdale, MN	ALRS.PK – Alerus Financial Corp.
5	6-Nov-09	Liberty Bank & Trust Company	Home Federal Savings Bank	Detroit, MI	Private
5	6-Nov-09	Ameris Bank	United Security Bank	Sparta, GA	ABCB – Ameris Bancorp.
5	30-Oct-09	US Bank, National Association	North Houston Bank	Houston, TX	USB – US Bancorp
	30-Oct-09	US Bank, National Association	Madisonville State Bank	Madisonville, TX	USB – US Bancorp
	30-Oct-09	US Bank, National Association	Citizens National Bank	Teague, TX	USB – US Bancorp
	30-Oct-09	US Bank, National Association	Park National Bank	Chicago, IL	USB – US Bancorp
	30-Oct-09	US Bank, National Association	Pacific National Bank	San Francisco, CA	USB – US Bancorp
7	30-Oct-09	US Bank, National Association	California National Bank	Los Angeles, CA	USB – US Bancorp
8	30-Oct-09	US Bank, National Association	San Diego National Bank	San Diego, CA	USB – US Bancorp
9	30-Oct-09	US Bank, National Association	Community Bank of Lemont	Lemont, IL	USB – US Bancorp
0	30-Oct-09	US Bank, National Association	Bank USA, N.A.	Phoenix, AZ	USB – US Bancorp
1	23-Oct-09	First Midwest Bank	First DuPage Bank	Westmont, IL	FMBI – First Midwest Bancorp. Inc.
2	23-Oct-09	Central Bank (Stillwater, MN)	Riverview Community Bank	Otsego, MN	Private
3	23-Oct-09	Tri City National Bank	Bank of Elmwood	Racine, WI	TRCY.PK – TriCity Bankshares Corp.
6	23-Oct-09	First Federal Bank of Florida	Flagship National Bank	Bradenton, FL	Private
	23-Oct-09	Stonegate Bank	Hillcrest Bank Florida	Naples, FL	SGBK.OB – Stonegate Bank
6	23-Oct-09	Ameris Bank	American United Bank	Lawrenceville, GA	ABCB – Ameris Bancorp.
6	23-Oct-09	Stonegate Bank	Partners Bank	Naples, FL	SGBK.OB – Stonegate Bank
6	16-Oct-09	Citizens Buisness Bank	San Joaquin Bank	Bakersfield, CA	CVBF – CVB Financial Corp
6	2-Oct-09	Legacy Bank	Southern Colorado National Bank	Pueblo, CO	Private
7	2-Oct-09	Central Bank (Stillwater, MN)	Jennings State Bank	Spring Grove, MN	Private
7	2-Oct-09	The Huntington National Bank	Warren Bank	Warren, MI	HBAN – Huntington Bancshares Inc.
7	25-Sep-09	First Citizens Bank & Trust Company	Georgian Bank	Atlanta, GA	FCNCA – First Citizens Bancshares Inc.
	18-Sep-09	First Financial Bank, N.A.	Irwin Union Bank, F.S.B.	Louisville, KY	THFF – First Financial Corp.
7	18-Sep-09	First Financial Bank, N.A.	Irwin Union Bank and Trust Company	Columbus, IN	THFF – First Financial Corp.
7	11-Sep-09	First Citizens Bank & Trust Company	Venture Bank	Lacey, WA	FCNCA – First Citizens Bancshares Inc.
7	11-Sep-09	CorTrust Bank, N.A.	Brickwell Community Bank	Woodbury, MN	Private
7	11-Sep-09	MB Financial Bank	Corus Bank, N.A.	Chicago, IL	MBFI – MB Financial Inc.
7	4-Sep-09	Sunwest Bank	First State Bank	Flagstaff, AZ	SWBC.OB – Sunwest Bank CA
7	4-Sep-09	FDIC	Platinum Community Bank	Rolling Meadows, IL	N/A
8	4-Sep-09	Great Southern Bank	Vantus Bank	Sioux City, IA	GSBC – Great Southern Bancorp, Inc.
8	4-Sep-09	MB Financial Bank	InBank	Oak Forest, IL	MBFI – MB Financial Inc.
8	4-Sep-09	Great American Bank	First Bank of Kansas City	Kansas City, MO	Private
8	28-Aug-09	Pacific Western Bank	Affinity Bank	Ventura, CA	PACW – PacWest Bancorp.
8	28-Aug-09	Central Bank (Stillwater, MN)	Mainstreet Bank	Forest Lake, MN	Private
8	28-Aug-09	Manufacturers and Traders Trust Co.	Bradford Bank	Baltimore, MD	MTB – M&T Bank Corp.
8	21-Aug-09	BBVA Compass	Guaranty Bank	Austin, TX	BBVA – Banco Bilbao Vizcaya Argentaria
8	21-Aug-09	IBERIABANK	CapitalSouth Bank	Birmingham, AL	IBKC – IBERIABANK Corp.
8	21-Aug-09	United Bank	First Coweta Bank	Newnan, GA	UCBI – United Community Banks, Inc.
8	21-Aug-09	Stearns Bank, N.A.	Ebank	Atlanta, GA	FSTF.PK – First State Financial Corp.
9	14-Aug-09	Deposit Ins. National Bank (FDIC)	Community Bank of Nevada	Las Vegas, NV	N/A
9	14-Aug-09	MidFirst Bank	Community Bank of Arizona	Phoenix, AZ	Private
	14-Aug-09	MidFirst Bank	Union Bank, National Association	Gilbert, AZ	Private
9	14-Aug-09	Branch Banking & Trust Company	Colonial Bank	Montgomery, AL	BBT – BB&T Corp.
	14-Aug-09	PNC Bank, N.A.	Dwelling House Savings and Loan Assoc.	Pittsburgh, PA	PNC – PNC Financial Services Group Inc.

Table 1 (cont.). US bank acquisitions

	Date	Acquiring bank	Acquired bank	Location of acquisition	Ticker symbol of acquiring bank
9	7-Aug-09	Home Federal Bank	Community First Bank	Prineville, OR	HFFC – HF Financial Corp.
9	7-Aug-09	Stearns Bank, N.A.	Community Nat. Bank of Sarasota County	Venice, FL	FSTF.PK – First State Financial Corp.
9	7-Aug-09	Stearns Bank, N.A.	First State Bank	Sarasota, FL	FSTF.PK – First State Financial Corp.
	31-Jul-09	United Central Bank	Mutual Bank	Harvey, IL	CEBK – Central Bancorp Inc.
9	31-Jul-09	Crown Bank	First BankAmericano	Elizabeth, NJ	Private
	31-Jul-09	First Financial Bank, N.A.	Peoples Community Bank	West Chester, OH	THFF – First Financial Corp.
1	31-Jul-09	Stonegate Bank	Integrity Bank	Jupiter, FL	SGBK.OB – Stonegate Bank
1	31-Jul-09	Herring Bank	First State Bank of Altus	Altus, OK	Private
1	24-Jul-09	State Bank and Trust Company	Security Bank of Jones County	Gray, GA	SBKQ.PK – Security Bank Corp.
1	24-Jul-09	State Bank and Trust Company	Security Bank of Houston County	Perry, GA	SBKQ.PK – Security Bank Corp.
1	24-Jul-09	State Bank and Trust Company	Security Bank of Bibb County	Macon, GA	SBKQ.PK – Security Bank Corp.
1	24-Jul-09	State Bank and Trust Company	Security Bank of North Metro	Woodstock, GA	SBKQ.PK – Security Bank Corp.
1	24-Jul-09	State Bank and Trust Company	Security Bank of North Fulton	Alpharetta, GA	SBKQ.PK – Security Bank Corp.
1	24-Jul-09	State Bank and Trust Company	Security Bank of Gwinnett County	Suwanee, GA	SBKQ.PK – Security Bank Corp.
1	24-Jul-09	Evans Bank	Waterford Village Bank	Williamsville, NY	EVBN – Evans Bancorp, Inc.
1	17-Jul-09	First Citizens Bank & Trust Company	Temecula Valley Bank	Temecula, CA	FCNCA – First Citizens Bancshares Inc.
1	17-Jul-09	California Bank & Trust	Vineyard Bank	Rancho Cucamonga, CA	ZION – Zions Bancorporations
1	17-Jul-09	Alerus Financial, N.A.	BankFirst	Sioux Falls, SD	ALRS.PK – Alerus Financial Corp.
1	17-Jul-09	First American Bank and Trust Co.	First Piedmont Bank	Winder, GA	Private
1	10-Jul-09	Central Bank & Trust	Bank of Wyoming	Thermopolis, WY	Private
1	2-Jul-09	The PrivateBank and Trust Company	Founders Bank	Worth, IL	PVTB – PrivateBancorp, Inc.
1	2-Jul-09	State Bank of Texas	Millennium State Bank of Texas	Dallas, TX	Private
1	2-Jul-09	First Financial Bank, N.A.	First National Bank of Danville	Danville, IL	THFF – First Financial Corp.
1	2-Jul-09	Galena State Bank and Trust Co.	Elizabeth State Bank	Elizabeth, IL	HTFL – Heartland Financial USA Inc.
1	2-Jul-09	The Harvard State Bank	Rock River Bank	Oregon, IL	Private
1	2-Jul-09	The First National Bank of Beardstown	First State Bank of Winchester	Winchester, IL	Private
1	2-Jul-09	State Bank of Lincoln	John Warner Bank	Clinton, IL	Private
1	26-Jun-09	Wilshire State Bank	Mirae Bank	Los Angeles, CA	WIBC – Wilshire Bancorp Inc.
1	26-Jun-09	Sunwest Bank	MetroPacific Bank	Irvine, CA	SWBC.OB – Sunwest Bank CA
1	26-Jun-09	Stearns Bank, N.A.	Horizon Bank	Pine City, MN	FSTF.PK – First State Financial Corp.
1	26-Jun-09	CharterBank	Neighborhood Community Bank	Newnan, GA	CHFN.OB – Charter Financial Corp.
1	26-Jun-09	FDIC	Community Bank of West Georgia	Villa Rica, GA	N/A
1	19-Jun-09	Bank of Kansas	First National Bank of Anthony	Anthony, KS	OKSB – Southwest Bankcorp Inc.
1	19-Jun-09	First Bank	Cooperative Bank	Wilmington, NC	COOPQ.PK – Coop. Bankshares(nd)
1	19-Jun-09	United Community Bank	Southern Community Bank	Fayetteville, GA	UCBI – United Community Banks, Inc.
1	5-Jun-09	Republic Bank of Chicago	Bank of Lincolnwood	Lincolnwood, IL	Private
1	22-May-09	Morton Community Bank	Citizens National Bank	Macomb, IL	Private
1	22-May-09	Midland States Bank	Strategic Capital Bank	Champaign, IL	Private
1	21-May-09	BankUnited	BankUnited, FSB	Coral Gables, FL	BKUNQ.PK – BankUnited Fin. Corp.(nd)
1	8-May-09	Kitsap Bank	Westsound Bank	Bremerton, WA	WSFGQ.PK – WSB Fin.Group(no data)
	1-May-09	Cache Valley Bank	America West Bank	Layton, UT	Private
	1-May-09	North Jersey Community Bank	Citizens Community Bank	Ridgewood, NJ	Private
1	1-May-09	Bridge Bank (FDIC)	Silverton Bank, NA	Atlanta, GA	N/A
	24-Apr-09	U.S. Bank, National Association	First Bank of Idaho	Ketchum, ID	USB – US Bancorp
1	24-Apr-09	FDIC	First Bank of Beverly Hills	Calabasas, CA	N/A
	24-Apr-09	Level One Bank	Michigan Heritage Bank	Farmington Hills, MI	Private
1	24-Apr-09	Bank of North Georgia	American Southern Bank	Kennesaw, GA	SNV – Synovus Financial Corp.
1	17-Apr-09	Nevada State Bank	Great Basin Bank of Nevada	Elko, NV	ZION – Zions Bancorporations
1	17-Apr-09	Metcalf Bank	American Sterling Bank	Sugar Creek, MO	CBCY.PK – Central Bancorp. (no data)
1	10-Apr-09	Deposit Insurance National Bank	New Frontier Bank	Greeley, CO	N/A
1	10-Apr-09	First Federal Savings and Loan Assoc.	Cape Fear Bank	Wilmington, NC	FFCH – First Financial Holdings Inc.
	27-Mar-09	SunTrust Bank	Omni National Bank	Atlanta, GA	STI – SunTrust Banks, Inc.
1	20-Mar-09	Great Southern Bank	TeamBank, NA	Paola, KS	GSBC – Great Southern Bancorp, Inc.

Table 1 (cont.). US bank acquisitions

	Date	Acquiring bank	Acquired bank	Location of acquisition	Ticker symbol of acquiring bank
1	20-Mar-09	Herring Bank	Colorado National Bank	Colorado Springs, CO	Private
1	20-Mar-09	FDIC	FirstCity Bank	Stockbridge, GA	N/A
1	6-Mar-09	Northeast Georgia Bank	Freedom Bank of Georgia	Commerce, GA	Private
1	27-Feb-09	Bank of Nevada	Security Savings Bank	Henderson, NV	WAL – Western Alliance Bancorp.
1	27-Feb-09	MB Financial Bank	Heritage Community Bank	Glenwood, IL	MBFI – MB Financial Inc.
1	20-Feb-09	Citizens Bank	Silver Falls Bank	Silverton, OR	CVBF – CVB Financial Corp
1	13-Feb-09	Washington Trust Bank of Spokane	Pinnacle Bank of Oregon	Beaverton, OR	Private
1	13-Feb-09	The Carlinville National Bank	Corn Belt Bank & Trust Co.	Pittsfield, IL	Private
1	13-Feb-09	TIB Bank	Riverside Bank of the Gulf Coast	Cape Coral, FL	TIBB – TIB Financial Corp.
1	13-Feb-09	Heritage Bank	Sherman County Bank	Loup City, NE	HFWA – Heritage Financial Corp.
1	6-Feb-09	Westamerica Bank	County Bank	Merced, CA	WABC – Westamerica Bancorp.
1	6-Feb-09	California Bank & Trust	Alliance Bank	Culver City, CA	ZION – Zions Bancorporations
1	6-Feb-09	Regions Bank	FirstBank Financial Services	McDonough, GA	RF – Regions Financial Corp.
1	30-Jan-09	CenterState Bank of Florida	Ocala National Bank	Ocala, FL	CSFL – CenterState Banks, Inc.
1	30-Jan-09	Bank of Essex	Suburban FSB	Crofton, MD	BSXT – BOE Fin.Services of VA(no data)
1	30-Jan-09	FDIC	MagnetBank	Salt Lake City, UT	N/A
1	23-Jan-09	First California Bank	1st Centennial Bank	Redlands, CA	FCAL – First CA Fin. Group, Inc.
	16-Jan-09	Umpqua Bank	Bank of Clark County	Vancouver, WA	UMPQ – Umpqua Holdings Corp.
	16-Jan-09	Republic Bank	National Bank of Commerce	Berkeley, IL	Private
1	12-Dec-08	The Pecos County State Bank	Sanderson State Bank	Sanderson, TX	Private
	12-Dec-08	Branch Banking & Trust Company	Haven Trust Bank	Duluth, GA	BBT – BB&T Corp.
1	5-Dec-08	United Bank	First Georgia Community Bank	Jackson, GA	Private
1	21-Nov-08	US Bank, National Association	PFF Bank & Trust	Pomona, CA	USB – US Bancorp
1	21-Nov-08	US Bank, National Association	Downey Savings & Loan	Newport Beach, CA	USB – US Bancorp
1	21-Nov-08	Bank of Essex	Community Bank	Loganville, GA	BSXT – BOE Fin.Services of VA(no data)
1	7-Nov-08	Pacific Western Bank	Security Pacific Bank	Los Angeles, CA	PACW – PacWest Bancorp.
1	7-Nov-08	Prosperity Bank	Franklin Bank, SSB	Houston, TX	PRSP – Prosperity Bancshares Inc.
1	31-Oct-08	Fifth Third Bank	Freedom Bank	Bradenton, FL	FITB – Fifth Third Bancorp.
1	24-Oct-08	Stearns Bank, N.A.	Alpha Bank & Trust	Alpharetta, GA	FSTF.PK – First State Financial Corp.
1	10-Oct-08	National Bank	Meridian Bank	Eldred, IL	Private
1	10-Oct-08	Monroe Bank & Trust	Main Street Bank	Northville, MI	MBTF – MBT Financial Corp.
1	25-Sep-08	JP Morgan Chase Bank	Washington Mutual Bank	Henderson, NV	JPM – JPMorgan Chase & Co.
1	19-Sep-08	The Citizens Savings Bank	Ameribank	Northfork, WV	RBS – Royal Bank of Scotland Group
1	5-Sep-08	Nevada State Bank	Silver State Bank	Henderson, NV	ZION – Zions Bancorporations
1	29-Aug-08	Regions Bank	Integrity Bank	Alpharetta, GA	RF – Regions Financial Corp.
1	22-Aug-08	Citizens Bank & Trust	Columbian Bank & Trust	Topeka, KS	Private
1	1-Aug-08	SunTrust Bank	First Priority Bank	Bradenton, FL	STI – SunTrust Banks, Inc.
1	25-Jul-08	Mutual of Omaha Bank	First Heritage Bank, NA	Newport Beach, CA	Private
	25-Jul-08	Mutual of Omaha Bank	First National Bank of Nevada	Reno, NV	Private
1	11-Jul-08	OneWest Bank (2009)	IndyMac Bank	Pasadena, CA	Private
	30-May-08	First International Bank and Trust	First Integrity Bank, NA	Staples, MN	Private
1	9-May-08	Pulaski Bank	ANB Financial, NA	Bentonville, AR	PULB – Pulaski Financial Corp.
1	7-Mar-08	Security Bank of Southwest MO	Hume Bank	Hume, MO	Private
1	25-Jan-08	Liberty Bank and Trust Co.	Douglass National Bank	Kansas City, MO	Private
	4-Oct-07	The Citizens Banking Co.	Miami Valley Bank	Lakeview, OH	FCZA – First Citizens Banc Corp.
1	28-Sep-07	ING DIRECT	NetBank	Alpharetta, GA	ING – ING Group, N.V.
1	2-Feb-07	Allegheny Valley Bank	Metropolitan Savings Bank	Pittsburgh, PA	AVLY.OB – Allegheny Valley Bancorp.
1	25-Jun-04	Far West Bank	Bank of Ephraim	Ephraim, UT	AWBC – American West Bancorp.
1	19-Mar-04	Union State Bank	Reliance Bank	White Plains, NY	Private
1	12-Mar-04	Hancock Bank of Florida	Guaranty National Bank of Tallahassee	Tallahassee, FL	HBHC – Hancock Holding Co.
1	14-Feb-04	FDIC	Dollar Savings Bank	Newark, NJ	N/A

Appendix B. European bank acquisitions used in this study

Table 2. European bank acquisitions

Date	Acquiring company	Acquired bank	Location of acquisition	Ticker symbol of acquiring bank
11-Jan-10	Santander UK	Abbey National Bank	London, England	STD – Grupo Santander
19-Oct-09	The administration (govt.)	Hypo Real Estate	Munich, Germany	n/a
19-Oct-09	Belarusian Industrial Bank	TechnoBank	Belarus	Private
1-May-09	Deutsche Bank	Global Agency Securities Lending	Frankfurt, Germany	DB – Deutsche Bank
16-Apr-09	Groupe Banque Populaire	Groupe Caisse d'Epargne	Paris, France	BCP – Banque Centrale Populaire
1-Mar-09	Icelandic regulators	Straumur Investment Bank	Reykjavik, Iceland	n/a
26-Jan-09	Ulster Bank	First Active Bank	Belfast, Ireland	Private
26-Jan-09	Credit Agricole	Societe Generale	Paris, France	ACA – Credit Agricole S.A.
26-Jan-09	Vnesheconombank (govt.)	Malev	Russia	n/a
21-Jan-09	Co-Operative Bank	Brittania	Manchester, England	Private
30-Nov-08	The administration (govt.)	London Scottish Bank	Manchester, England	n/a
19-Oct-08	Bundesbank (govt.)	Hypo Real Estate	Munich, Germany	n/a
7-Oct-08	The administration (govt.)	Glitner Bank	Reykjavik, Iceland	n/a
7-Oct-08	The administration (govt.)	Landsbanki	Reykjavik, Iceland	n/a
7-Oct-08	The administration (govt.)	Kaupthing Bank	Reykjavik, Iceland	n/a
1-Oct-08	Santander	Alliance & Leister	Madrid, Spain	STD – Grupo Santander
28-Sep-08	Santander	Bradford and Bingley	Madrid, Spain	STD – Grupo Santander
17-Sep-08	Barclays	Lehman Brothers Investments	London, England	BARC.L – Barclays
17-Sep-08	Llyods TSB	HBOS	Edinburgh, Scotland	LYG-Llyods Banking Group
31-Aug-08	Commerzbank	Dresdner	Hamburg, Germany	CBK – Commerzbank Aktiengesellschaft Co.
11-Jul-08	Credit Mutuel	Citibank Germany	Paris, France	Private
2-Jul-08	Deutsche Bank	Parts Of ABN Amro Netherlands	Frankfurt, Germany	DB – Deutsche Bank
26-Jun-08	Ameriabank	Armimpexbank	Armenia	Private
28-Apr-08	Deutsche Bank	Taiwan Asset Mgmt. Acquisition	Frankfurt, Germany	DB – Deutsche Bank
17-Feb-08	The administration (govt.)	Northern Rock Bank	Tyne, UK	n/a
13-Dec-07	Landesbank Baden-Wuerttemberg	Sachsen LB	Hamburg, Germany	LBBW – Landesbank Baden-Wuerttemberg
1-Oct-07	Hypo Real Estate	Depfa Bank	Berlin, Germany	n/a
2-Nov-07	Royal Bank of Scotland	ABN Amro Bank	Edinburgh, Scotland	RBS – Royal Bank of Scotland Group
27-Apr-07	UniCredit Bank	Bulbank	Bulgaria	UCG – UniCredit Group
27-Apr-07	UniCredit Bank	HVB Bank Biochim	Bulgaria	UCG – UniCredit Group
27-Apr-07	UniCredit Bank	Hebros Bank	Bulgaria	UCG – UniCredit Group
3-Jan-07	Deutsche Bank	MortgageIT Holdings	Frankfurt, Germany	DB – Deutsche Bank
1-Jan-07	Intesa Sanpaolo Bank Albania	American Bank of Albania	Turin, Italy	ISP – Intesa Sanpaolo
1-Jan-07	Banco Popolare	Banco Popolare di Verona e Novara	Verona, Italy	BP – Banco Popolare
1-Jan-07	Banco Popolare	Banca Popolare Italiana	Verona, Italy	BP – Banco Popolare
17-Nov-06	Groupe Banque Populaire	IXIS CIB	Paris, France	BCP – Banque Centrale Populaire
1-Jan-06	EuroBank	Nacionalna štedionica	Athens, Greece	EUROB – EuroBank
1-Jan-06	EuroBank	Tekfenbank	Athens, Greece	EUROB – EuroBank
1-Jan-06	EuroBank	Universal Bank in Ukraine	Athens, Greece	EUROB – EuroBank
1-Jan-06	EuroBank	DZI Bank in Bulgaria	Athens, Greece	EUROB – EuroBank
8-Dec-05	Danske Bank	National Irish Bank	Copenhagen, Denmark	DANSKE – Danske Bank Group