Abnormal stock market returns to announcements if M&A banking deals in Greece 1996-2013

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Abstract. *This study has undertaken a comprehensive empirical analysis of the wealth effects of bank M&A in Greece over the period 1996-2013 and it reports insignificant abnormal gains for acquiring banks, significant positive abnormal returns at 7,44% for acquired banks, and 2,91% positive abnormal returns for the combined entity, in the event window [-10; +1]. The findings indicate that, on average, the Greek bank mergers neither create nor destroy shareholder wealth. This result is consistent with the findings of other Greek event studies, and the bulk of the US and European event studies on M&A wealth effects. On average, acquired firm shareholders gain at the expense of the acquiring firm and market value of the combined entity appears to have little improvement around the announcement of the transaction. Yet, mergers continue so there is scope to investigate other motives that drive M&As in the banking sector.*

Keywords: *stock market returns; M&A banking; Greece.*

Introduction

Deregulation, globalization, advances in transaction and information technologies (technological progress), geographic shifts in growth opportunities, diversification of risks, economies of scale and scope, cost reduction, financial synergies, tax advantages, the introduction of the euro and increased competition as well as, technological progress, fast expansion of client requirements, risk diversification, regulatory policy, managerial hubris have all been broad well-known drivers for

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consolidation in the banking sector (Amel et al., 2004; Ayadi, 2007; Beitel et al., 2004; Campa & Hernando, 2005; Chen et al., 2006; DeYoung et al., 2009; Demsetz & Strahan, 2007; Focarelli & Pozzolo, 2010; Hannan & Pillof, 2009; Hendricks, 2007). The question whether or not M&As have contributed or not to improve banks' efficiency and profitability has not yet been convincingly answered in the literature given the restricted consensus on the impact of consolidation on banks' performance. Up to present, the Greek banking sector has not been studied adequately due to data deficiencies (Pasiouras & Zopounidis, 2008). This paper thus fills a research gap and it reviews the rationale behind banking consolidation in Greece and it uses market data to perform an event study on the stock market valuation of M&As in the Greek banking sector for 1996-2013. Therefore, the research hypothesis can be formulated as follows: *A bank M&A has a significant positive impact on the stock market price of both the acquirer and target.*

Literature review on the effects of bank M&As

Research literature on the effects of consolidation can be classified: dynamic efficiency studies, operating performance studies and event studies. This paper follows the event study approach. The basic idea of bank consolidation event studies is to determine if there are any value gains in the share prices of the bidders and/or of the targets, and/or of the combined entities around the announcement of a M&A. In general, findings are not consistent across event studies, as demonstrated in the review article by Beitel and Schiereck (2000). The bulk of empirical research shows no evidence of value gains from bank mergers or from increased bank size per se beyond a small size. DeLong (2001), Becher (2000), Kane (2000), Beitel and Schiereck (2001), Hart and Apilado (2002), Campa and Hernando (2006), Becher (2006), Asimakopoulos and Athanasoglou (2009), and Intrisano (2012) studied abnormal returns of acquirers and they found that average cumulative abnormal returns of acquirers were negative around the merger announcement date. Studies by Hatzigayos et al. (2000), Cybo-Ottone and Murgia (2000), Duso (2010), Liargovas and Repousis (2011), Dishad (2012), Goddard et al. (2012) present no significant value creation in the bidder share prices. Also of importance is the fact that only few studies offer statistically significant positive abnormal returns for acquiring banks as of Campa and Hernando

(2004) and Davidson and Ismail (2005). Analysis of merger gains examining stock price performance of the bidder and target firm around the announcement of a merger or acquisition indicate that overall wealth effects from bank mergers are positive over time (Pillof, 1996; Kwan & Eisenbeis, 1999; Beitel & Schierech, 2001; Becher, 2000; Hart & Apilado, 2002; Duso et al., 2010).

Although European research on bank efficiency has not matched the volume of the US studies this has began to change in recent years. There is some evidence that M&As in Europe increase combined value. A notable study of the European market is the recent work by Cybo-Ottone and Murgia (2000), who documented that there is a positive and significant increase in stock market value for the targets and the combined entity at the time of the deal announcement. It should be noted that the sample used also contained cross-product deals in which banks expand into insurance or investment banking, since regulations allow EU banks to offer both banking and insurance products. Beitel and Schiereck (2001), Hart and Apilado (2002), Campa and Hernando (2004), Davidson and Ismail (2005), and Duso et al. (2010) also studied value creation of European banking consolidation and reported positive findings for the combined entity and for the shareholders of the targets that earn considerable and significant positive abnormal returns. The results for the shareholders of the bidders are insignificantly negative. Tourani-Rad and Van Beek (1999) found that shareholders of the targets experience significantly positive returns while abnormal returns for the bidding banks are very modest and not statistically significant due to the relative small size of the target comparing to that of the bidder, while Dilshad (2012) report insignificant returns for both bidders and targets.

As far as M&As in the Greek banking sector as concerned, to our knowledge, Hatzigayos et al. (2000) is the first study that examines the consolidation of listed banks in the Greek market. The authors investigate 4 bank deals over the period 1998-99 when the first merger wave took place in Greece. The results point at insignificant negative abnormal returns for the bidding banks at a merger announcement mainly due to overpriced takeovers. Other studies on the shareholder value creation are that of Manasakis (2009), Mylonidis and Kelnikola (2005) and Asimakopoulos et al. (2005). Overall, these studies confirm considerable wealth gains for both bidders and targets except the study of Manasakis

who reports negatively wealth gains. Relatively positive results to that of the aforementioned Greek studies are the outcomes offered by Vergos and Christopoulos (2011), whose focus is placed exclusively on the combined entity following the consolidation exercise.

Research setting: the Greek banking sector

In 2012, the Greek banking sectors consisted of 62 credit institutions with 4,005 branches and 63,400 employees (EFB, 2012). A particular feature of the Greek commercial banking system is the central role of a few large banks, having substantial market power (EFB, 2012). Starting in 1999 a series of smaller-sized bank M&As occurred. The leading role was held by Piraeus Bank, which acquired control of Chios Bank, founded in 1991. In addition, Piraeus Bank absorbed the branches of National Westminster Bank in Greece. Shortly thereafter, Piraeus Bank moved on to absorb the commercial banks of Macedonia-Thrace Bank and Chios respectively. In 1999, Egnatia Bank absorbs the Bank of Central Greece. In the 2000s, Egnatia Bank joins Cyprus Popular Bank to create the Marfin Popular Bank, which later was named Cyprus Popular Bank. In 1998, two more historic banks disappeared from the bank charter, when the National Bank merged by absorption with National Mortgage Bank (which had been the outcome from the merger of two former subsidiaries, the National Mortgage and National Housing Bank). In early 2002, Piraeus Bank acquired control ETBA bank, founded in 1964 with the main purpose to contribute to the industrial development of the country.

After a lengthy period of more or less a decade, historical changes in the domestic banking system had begun in 2012 and haven't stopped since the mid of 2013. Leading roles for Piraeus Bank and Alpha Bank once again. Specifically, in late July 2012, Piraeus Bank acquired the 'healthy' part of the Agricultural Bank. Three months later, Piraeus Bank signed an agreement with Societe Generale to obtain the overall turnout (99%) of General Bank. In March 2013, Piraeus Bank also acquired the banking operations of Bank of Cyprus, Cyprus Popular Bank and Bank of the Greek in Greece and later acquired the Millennium Bank too. All banks acquired by Piraeus Bank will be fully absorbed by the end of 2013. In February 2013, Alpha Bank acquired all the shares of Emporiki Bank and

in late June of the same year the acquisition was completed. The New Proton Bank is also acquired by Eurobank, while in May 2013 the FBBank passed to NBG (Lidorikis, 2013).

Methodology

Event studies

The event study methodology is widely used to investigate possible gains that are derived from stock prices of the consolidated institutions involved prior and following the announcement of an M&A (Dilshad, 2012). The first step in an event study is to define the event under examination and the timing of the event, hence, *the event date*. In addition, it is necessary to identify the period over which the stock price performance will be investigated, *the event window*. Following the identification of the timing of the event, the event window should be determined $[t_1;t_2]$, in other words, the time period surrounding the announcement date, over which the firm's stock price performance is under examination. We follow Warner and Brown (1985) in order to investigate market reactions to bank mergers taking place in Greece during 1997-2013, where differences in the stock returns between acquiring banks or target banks and the market are used as estimates of abnormal or excess returns for a 12-day window [-10;+1] around the merger announcement date, using the following model:

$$AR_{it} = R_{it} - (a_i + b_i R_{mt}) \qquad \text{(equation 1)}$$

where

AR_{it} = abnormal returns to bank stock *i* at time *t*

R_{it} = actual returns to bank stock *i* at time *t*

a_i = ordinary least squares (OLS) estimate of the intercept of the estimated market model

b_i = OLS estimate of the market model slope coefficient reflecting change in the market return relative to the return for bank *i*

R_{mt} = actual returns to a market portfolio of bank stocks at time *t*, as proxied by, for example, the value-weighted index of bank stocks from the ASE.

Deducting $[a_i + b_i R_{mt}]$ from R_{it}, as shown in equation 1, neutralizes the effect of general market movements but does not neutralize firm-specific price variations caused by events other than the merger announcement. To neutralize these firm-specific price variations, the cross-sectional average of the abnormal returns for the total sample of bank stocks for each period is computed. For a sample of n bank stocks, the mean abnormal return for each day t is computed as:

$$MAR_t = \frac{1}{n} \sum_{i=1}^{n} AR_{it} \qquad \text{(equation 2)}$$

where t = -10,-9…0, +1. The cross-sectional average neutralizes firm-specific price variations that are unrelated to the merger announcements because each announcement did not occur at the same point in time for the n banks in the sample. Hence, the expected value of MAR_t is zero in the absence of abnormal returns due to merger announcements. The final calculation of abnormal returns is to compute cumulative average abnormal returns from day t=-10 to t=0 and from day t=-10 to t=+1 using the formula:

$$CAR(-10, t_1) = \sum_{t=-10}^{t_1} MAR_t \qquad \text{(equation 3)}$$

where t_1 = {0, +1}, and $CAR(-10, t_1)$ is the cumulative average abnormal return for the sample of n bank stocks over the event period intervals from t = -10 to t = t_1. The expected value of CAR is zero in the absence of abnormal returns.

Statistical analysis

To test the significance of MAR_t, the average standardized abnormal return is estimated using the following statistic, as described in Dodd and Warner (1983):

$$SAR_t = \frac{1}{n}\sum_{i=1}^{n}\frac{AR_{it}}{s_{it}} \qquad \text{(equation 4)}$$

where s_{it} is the estimated standard deviation of the abnormal returns for bank stock i in the event period t and is computed by:

$$s_{it} = \sqrt{Si^2[1 + \frac{1}{T} + \frac{(Rmt - \overline{Rm})^2}{\sum_{k=1}^{T}(Rmk - \overline{Rm})^2}]} \qquad \text{(equation 5)}$$

where

s_i^2 = residual variance for security i from the market model regression

T = number of days in the estimation period (135)

R_{mt} = rate of return on the market index for day t of the event period

R_m = mean rate of return on the market index during the estimation period

R_{mk} = rate of return on the market index for the day k of the estimation period

As shown in equation 5, the standard error of the forecast for the event period, s_{it}, involves a slight adjustment from the standard error of the estimate, s_i. This adjustment reflects the deviations of the independent variables in the estimation period from the values employed in the original regression and are typically close to 1.

Statistical analysis of the combined entity

Most studies examine the abnormal returns of acquirers and targets separately, but several papers analyze the total change in shareholder wealth.

In such cases, the value-weighted sum of acquirer and target abnormal returns is the appropriate measure of overall gains stemming from merger and acquisition activity. This measure quantifies the value reaction that the market believes the merger will provide because false interpretations can be made when looking solely at the outcomes of the bidder or the target. Cumulative abnormal returns of the combined entity (bidder and target firms together) are calculated by following the method outline in Houston and Ryngaert (1994):

Combined Cumulative Abnormal Returns = $\dfrac{(CAR_b V_b) + (V_t\, CAR_t)}{(V_b + V_t)}$

$$(equation\ 6)$$

where Vi is the value of the bank's stock −10 days before the merger announcement date for the bidder and target respectively over the 12-day window. To gauge statistical significance, a z-test and subsequent p-value are calculated from the mean assuming a normal distribution using the suggestions described in Dodd and Warner (1983).

M&A data sources and sample selection criteria

The population under investigation consists of all Greek financial institutions that announced a M&A activity between the first of January 1996 and the thirtieth of July 2013. This study relies on two data sources: The Athens Stock Exchange (ASE) and the Economic Bulletins of Commercial Bank. The ASE provides individual equity values (historical data for stock prices of banks involved in M&As), banking industry and market returns. The exact announcement dates of M&As are not readily available (the Economic Bulletins of Commercial Bank provides only yearly tables of M&As in Greek banks), thus a lot of additional research on Greek financial newspapers like Imerisia and Kathimerini was required. For the analysis of additional data (e.g. total assets, total equity) based on bank balance sheets and income statements, the study relies on financial statements of the Greek banking system provided by the Hellenic Bank Association (HBA).

There were 33 bank mergers during the period 1996-2013 in Greece, but 19 were eliminated from the sample, as they did not satisfy the following criteria:

- Both, the bidding and the target banks are publicly traded banking institutions listed on the Athens Stock Exchange (ASE) for at least 252 trading days (a full year) prior to the announcement and 20 days after the announcement of a merger transaction.

- The merger or acquisition must have occurred before 31/7/2013.

- Both of the merged banks must be healthy institutions at the time of the merger.

- The transaction has been closed – the deal status hence is "completed".

- The M&A deal is a full merger of the two banks or entails the transfer of control from the target to the acquiring bank.

In particular, in sixteen (16) cases the bidding or target banks were not publicly traded banking institutions, which means that there were no share prices to perform event study methodology and in three (3) cases, Greek banks involved in the take-over of network of foreign banks). So, following the elimination, the total number of deals left for analysis is fourteen (14). The final sample of the study is presented in Table 1.

Table 1. 1996-2013 Greek bank M&As

Year	Acquiring Bank	Target Bank	Announcement Date
1997	National Mortage	National Housing	31/01/1997
1998	Piraeus Bank	Macedonia-Thrace Bank	08/05/1998
	Piraeus Bank	Xiosbank	10/07/1998
	EFG Eurobank	Bank of Athens	16/06/1998
	Egnatia Bank	Bank of Central Greece	31/07/1998
	National Bank of Greece	National Mortage	27/05/1998
2011	Postal Savings Bank	Aspis Bank	09/0602011
2012	Piraeus Bank	Geniki Bank	19/10/2012
	Alpha Bank	Commercial Bank	16/10/2012
	Piraeus	Agricultural Bank	23/09/2012
2013	Piraeus Bank	Bank of Cyprus	03/03/2013
	Piraeus Bank	Laiki Bank	03/03/2013
	EFG Eurobank-Ergasias	Postal Savings Bank	14/07/2013
	EFG Eurobank-Ergasias	Proton Bank	19/07/2013

Results

Market responses to mergers

Following the methodology outlined in the previous section, several event windows are used to calculate abnormal returns ranging in size from twelve days, spanning days [t = -10, t = +1] to only two days [t = 0, +1]. Table 2 provides the cumulative abnormal returns for bidders. In general, prior to the merger announcement date, bidders experience positive returns. Over the 11-day window [-10;0], bidder CARs are accounted for +1,74%, while the 3-day window [-2;0] offers +2,54% gains for the shareholders of the acquiring firms. However, this trend seems to be altered exactly on the announcement date where bidder abnormal returns fall significantly. This is very clear in the 2-day event window [0; +1], where the losses for bidders reach –1,74%. Overall, this study finds positive and statistically insignificant abnormal returns to acquiring firms amounting to a twelve-day cumulative abnormal return of only +0,78%, a very modest average gain. One explanation for this slight increase in returns for acquiring banks is the fact that the considerable size of target banks in Greece along with their strong financial performance do not allow bidding firms to exploit any significant gains from efficiency increase and cost savings.

However, the results validate the results of Liagrovas and Repousis (2011) who also report insignificant bidder CARs for an event window [-30; +30] and are not seriously differentiated with these of an earlier event study by Hatzigayos et al. (2000). Their findings indicate that there is an insignificant negative reaction for shareholders of the acquiring firms around the announcement of a bank merger in Greece. The authors find a non-significant negative reaction of –0,3% on days –1 to +5 after the announcement date. Nevertheless, the sample used in their work is somewhat smaller than that used in this study and the authors computed abnormal returns only for the bidders. However, both studies of Mylonidis and Kelnikola (2005) and Asimakopoulos et al. (2005) disclose considerable wealth effects for bidders at 4,9% and 25,1% respectively over a 40-day window [-20;+20]. It is worth noticing that Asimakopoulos et al. (2005) is the only Greek study that shows significantly higher CARs for bidders as compared to the CARs of targets for a considerable period of time violating the efficient market hypothesis and giving space to rumor dispersion effect and or to abuse of inside information prior the announcement of merger event.

Table 2. Cummulative abnormal returns (CARs) of the acquiring banks in Greece between 1996-2013.

Bidders (N = 7) Event window	CAR in %[a]	Pos.	Neg.	Z-test	p-value
[-10;0]	1,74	4	4	0,01	0,25477
[-5;0]	1,88	3	5	0,03	0,19548
[-2;0]	2,54	5	3	0,04	0,20358
[-1;0]	0,08	4	4	0,25	0,22571
{0}	-0,78	2	6	0,50	0,11929
[-1;+1]	-0,88	4	4	0,22	0,11271
[0;+1]	-1,74	4	4	0,47	0,29943
[-10;+1]	0,78	3	5	0,31	0,33732

Note: This table presents the results for an event study examining 14 targets from Greek bank M&As. Abnormal returns were calculated using OLS-regression. OLS parameters have been estimated for a period of 135 trading days prior to the event window [-10;+1]. As market returns we applied ASE index (Athens Stock Exchange). Tests of significance are calculated from standardized abnormal returns employing the Dodd-Warner (1983) procedure.

[a] ***=significant at the 1 percent level, **=significant at the 5 percent level, *=significant at 10 percent level.

Other previous European studies that look at the returns to bidders report insignificant findings for the shareholders of the acquiring firms. The results of Dishlad (2012), Goddard et al. (2012), Duso (2010), Cybo-Ottone and Murgia (2000), Beitel and Shierech (2004) and Tourani-Rad and Van Beek (1999) are basically the same. However, studies focusing on US M&As indicate significant negative cumulative abnormal returns. Becher (2006) and Hart and Apilado (2002) show -0,61% and –0,63% losses respectively for a one-day event window [0]. In addition, DeLong (2001) finds –1,70% return for a twelve-day window [-10;+1], while Houston et al. (2001) report –2,61% return for acquiring firms. European studies that also conclude to negative bidder CARs are that of Intrisano (2012) finding -3,7%, Asimakopoulos and Athanasoglou (2009) -0,79%, Campa and Hernando (2006) -2,37% The findings for the bidders in this study seem to contradict the findings of major US studies, while tend to confirm several studies conducted in European banking markets indicating neither

success nor failure of wealth creation for the shareholders of acquiring banks.

Cumulative abnormal returns for targets across event windows are reported in Table 3. There is no much to say about target returns. Like previous European and US studies, target banks in Greece have positive wealth effects in all event windows. As can be noted observing p-value of the z-test, all measures of CARs are highly significant. This work finds a statistically significant cumulative return +7,44% for the event window [-10;+1].

Table 3. Cumulative abnormal returns (CARs) of targeted banks in Greece between 1996-2013.

Targets (N = 14) Event window	CAR in %[a]	Pos.	Neg.	Z-test	p-value
[-10;0]	5,43***	5	3	0,96	0,00000
[-5;0]	3,76***	4	4	0,86	0,00000
[-2;0]	4,54***	6	2	0,29	0,00000
[-1;0]	2,72***	4	4	0,39	0,00000
{0}	1,14***	3	5	0,50	0,00000
[-1;+1]	4,73***	3	5	0,72	0,00000
[0;+1]	3,15***	4	4	0,67	0,00000
[-10;+1]	7,44***	5	3	0,58	0,00000

Notes: This table presents the results for an event study examining 7 bidders from Greek bank M&As. Abnormal returns were calculated using OLS-regression. OLS parameters have been estimated for a period of 135 trading days prior to the event window [-10;+1]. As market returns we applied ASE index (Athens Stock Exchange). Tests of significance are calculated from standardized abnormal returns employing the Dodd-Warner (1983) procedure.

[a] ***=significant at the 1 percent level, **=significant at the 5 percent level, *=significant at 10 percent level.

The results of the present study confirm the outcomes of similar Greek studies such as those of Mylonidis and Kelnikola (2005), as well as that of Asimakopoulos et al. (2005). According to Beitel and Schiereck (2004), in Europe, cumulative abnormal returns for targets account for +16,0% in a 41-day window [-20; +20]. The results of Intrisano (2012) represent

10.3% wealth creation for targets. Cybo-Ottone and Murgia (2000) also register significant positive returns +16,1% for target banks considering the period of 11 days around the announcement, while Tourani-Rad and Van Beek (1999) show +5,71% wealth increase in a 81-day event window [-40; +40]. The same results are found in all studies performed in USA too. Targets experience superior performance regardless of the days studied in the event windows (Hart & Apilado, 2002; DeLong, 2001). In other words, M&As in Europe and USA act in favor of target's shareholders. This outcome suggests that target management and shareholders may prefer to withdraw from deals where there are no significant opportunities to exploit merger gains.

The results of the event study for the combined entity are given in Table 4. Examining simultaneously both the acquiring and targeted banks, allows us to determine whether bank M&As create rather than transfer wealth. The market reaction for the combined entity to a merger announcement for several days surrounding the merger announcement shows a slight increase in the combined abnormal returns for 14 pairs of acquiring and targeted banks in sample. Table 4 indicates that over the 11-day window [-10;+1], cumulative abnormal returns to the combined entity are +2,91%. Positive returns to targets are essentially offset by insignificant returns to bidders. It is interesting to note, however, that this result is consistent with accounting-based studies that provide evidence for limited efficiency gains from bank mergers (Duso, 2010; Davinson & Ismail, 2005; Hart & Apilado, 2002; Kwan & Eisenbeis, 1999; Pillof, 1996). However, Mylonidis and Kelnikola (2005) register a quite big CAR +9,1% for the and combined entity similarly, Vergos and Christopoulos (2008) +6% respectively regarding Greek deals. When comparing the results of this study with those reported in Table 3.1, Cybo-Ottone and Murgia (2000) finds +4,0% increase in the market value for the combined entity in a sample of 46 European bank mergers.

Table 4. Combined cumulative abnormal returns (CARs) from bank takeovers in Greece between 1996-2013.

Combined entity (N = 14) Event window	CAR in %[a]	Pos.	Neg.	Z-test	p-value
[-10;0]	1,10***	5	3	0,30	0,00056
[-5;0]	0,24***	4	4	0,22	0,00099
[-2;0]	1,08***	6	2	0,04	0,00268
[-1;0]	0,85***	4	4	0,23	0,00044
{0}	*0,44***	3	5	0,50	0,00003
[-1;+1]	2,42***	3	5	0,42	0,00011
[0;+1]	1,15***	6	2	0,58	0,00005
[-10;+1]	2,91***	3	5	0,29	0,00413

Notes: This table presents the results for an event study examining 8 targets from Greek bank M&As. Abnormal returns were calculated using OLS-regression. OLS parameters have been estimated for a period of 135 trading days prior to the event window [-10;+1]. As market returns we applied ASE index (Athens Stock Exchange). Tests of significance are calculated from standardized abnormal returns employing the Dodd-Warner (1983) procedure.

[a] ***=significant at the 1 percent level, **=significant at the 5 percent level, *=significant at 10 percent level.

Beitel and Schiereck (2004) also study mergers in Europe and show +1,29% increase in combined value. Studies on the wealth effects of the US bank M&As, such as those of Houston et al. (2001), Becher (2000), and Houston and Ryngaert (1994) find that mergers can create little value on a net and aggregate basis. According to the aforementioned studies, this work is consistent with actual measured performance gains and the bulk of European and US event studies. For a more complete picture of the CARs during the investigation period for the bidders, the targets as well as for the combined entity, see Figure 1.
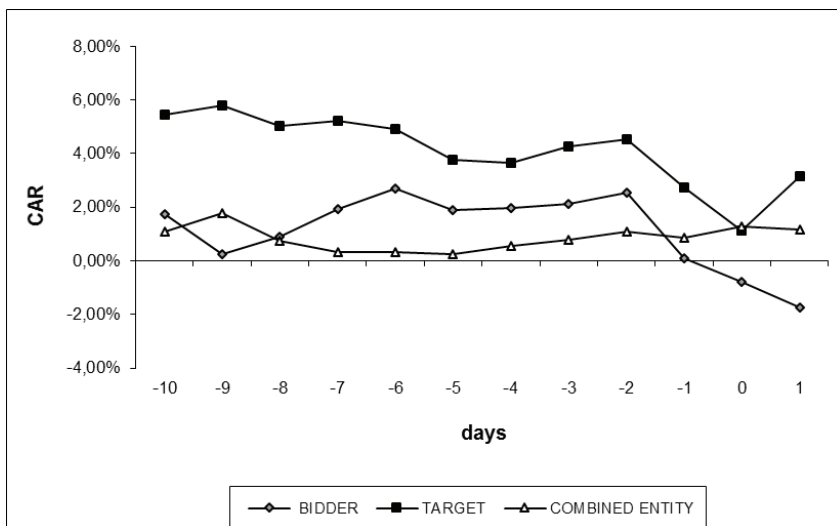
Figure 1. CARs for the whole sample

Conclusions

This study has undertaken a comprehensive empirical analysis of the wealth effects of bank M&As in Greece over the period 1996-2013 and it reports insignificant abnormal gains for acquiring banks, significant positive abnormal returns at 7,44% for acquired banks, and 2,91% positive abnormal returns for the combined entity, in the event window [-10;+1]. The findings indicate that, on average, the Greek bank mergers neither create nor destroy shareholder wealth. This result is consistent with the findings of other Greek event studies, and the bulk of US and European event studies on M&A wealth effects.

Empirical evidence seems to contradict the theoretical background on performance effects of bank consolidation, particularly especially when one compares compare banks with non-merging banks (Behr & Heid, 2011). On average, acquired firm shareholders gain at the expense of the acquiring firm and market value of the combined entity appears to have little improvement around the announcement of the transaction. Yet, mergers continue. Perhaps managers are experiencing a kind of self-delusion, as Doukas and Petmezas (2007) stress out that optimism and overconfidence on the managers side can lead to managerial 'hubris' that results in a misperceived ability that managers can improve the target.

In this case, bidders can end up overbidding, a fact that seriously affect the returns to acquired banks (Malmendier & Tate, 2004). However, it is still difficult to consider that a vast restructuring of the world financial structure is taking place simply because of a careless or thoughtless view of one's own managerial talent. Another possible explanation rested on the assumption that managers are unethical, informing the shareholders that their only purpose is the value creation nevertheless they only taking care to increase their own power base and compensation. Still, regarding this issue, someone must be really sceptical to claim that big banking institutions have undertaken considerable acquisition plans with the consent of shareholders that do not benefit from the exercise.

Limitations of the study

As with any methodological approach, shareholder value creation studies themselves are not perfect. A well-known weakness of accounting data studies is the definition of inputs and outputs of a banking firm, meaning that there is lack of consensus on the variables that entirely define bank output. Another significant drawback is the regular phenomenon of misleading manipulated accounting data (Liargovas & Repousis, 2011). Likewise, a drawback with event studies is that the origin of any value creation is not effortlessly traced, therefore, must be determined out of the data using a second-stage statistical procedure (for instance, positive abnormal returns could be interpreted as the outcome of either increased market power or improved efficiency or both. In other words, observed returns may be ascribed to expected bank performance or the actual result may be entirely unrelated to the surveyed merger transaction. Nonetheless, the event study methodology is not left without criticism. Becher (2006) claims that event windows are not easy to trace and are regularly stringently characterized as mergers are anticipated by the market before they are actually announced publicly.

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