

CORPORATE GOVERNANCE AND TARGET IPO BANK RETURNS SURROUNDING M&A ANNOUNCEMENTS

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Abstract— This study examines the relationship between corporate governance and cumulative abnormal returns (CARs) associated with target IPO banks surrounding M&A announcements. Empirical evidence suggests that a majority of the sample banks benefit from M&A announcements. It further shows that the CARs can be positively attributed to D&O insurance coverage and ownership while being negatively linked to board size. However, board independence fails to register any significance. In contrast, bank size, the control variable, persistently shows its significant, negative relationship with respect to target bank stock performance around M&A announcements. Thus, stockholders of small target banks fare better than those of large target banks in mergers and acquisitions.

Keywords-corporate governance; target IPO bank returns; M&A announcements

I. INTRODUCTION

Reference [3] investigates the mechanism of corporate control in commercial banks. It finds that regulatory intervention is the most important mechanism followed by supervision of the board of directors. He further claims that the board supervision is much less assertive than that of nonfinancial firms. The latter should not come as a surprise, though, given the flawed, dual insurance mechanism embedded in the banking sector. The mechanism's deficiency is manifested implicitly through numerous precedents of bank bailouts by central banks of national governments to protect their economies and explicitly through the Federal Deposit Insurance Corporation (FDIC). As a result, managers are inclined to take on risky investments while depositors lack incentive to monitor bank governance, the culmination of which preceded the 2008 financial meltdown and the aftermath since then. The inevitable catastrophe calls for a close examination of corporate governance and its pivotal role in remedying potential conflict of interests between managers and shareholders in the banking sector.

Ample research shows that the board of directors is critical to the determination of firm value. For example, [16] and [1] document significant link between board size and firm performance; [7] shows that when a majority of outside directors are busy, firm underperforms in terms of its market-to-book ratio. Reference [14] further asserts that board size

reduction and board independence enhancement are two of the most common and tested recommendations for board reform. Thus, corporate governance structure needs to be carefully studied in order to better align manager and shareholder interests. Surprisingly, though, as noted in [8], very little finance literature has been devoted to the influence of corporate governance on the outcome of bank mergers and acquisitions. This research attempts to fill in the void and shed more light into this paradigm by investigating the relationship between corporate governance and cross-sectional variation of cumulative abnormal returns (CARs hereafter) of target banks surrounding M&A announcements. Also, by focusing the event study on target banks that have recently gone through IPOs, this research does not have to suffer from weakened statistical power associated with sample heterogeneity or incur prohibitively expensive but necessary procedure to account for industry and temporal specification errors when sufficiently large data is pulled from all industries spanned over time.

The rest of this paper is organized as follows: Section II reviews relevant literature and synthesizes the proposed hypotheses; Section III covers data, including some descriptive statistics, and methodology; Section IV reports empirical findings; Section V concludes this study.

II. LITERATURE REVIEW AND HYPOTHESIS SYNTHESIS

Extensive research has been devoted to the examination of banking industry M&As and abnormal returns associated with the event. Reference [6] studies the stock market reactions to the public announcements of 152 interstate bank merger proposals launched prior to 1986. It finds that both the bidder and the target experience significant positive abnormal returns during a time period around the announcement date. In contrast, [3] performs an event study on the Italian market and concludes that while the target receives a favorable response, the buyer receives an unfavorable one.

Reference [4] shows that firms with high litigation risk tend to purchase insurance coverage for their directors and officers (D&Os hereafter) and carry high insurance limits and deductibles. This high level of risk can be reduced once the target goes through M&A and realizes the benefit of diversification. Consequently, a positive relationship is

expected between the mention of D&O insurance coverage in the prospectus of the target and the *CARs* for the target. Thus, the following hypothesis can be formulated:

H₁ D&O insurance coverage is positively related to the *CARs* for the target.

Reference [16] documents a negative connection between the log of board size and Tobin's Q. Furthermore, [5] reveals that CEO pays are positively related to board size. Once the M&A goes through, the board size most likely will get even bigger, which will further enlarge CEO pays and dampen bank performance. Therefore, the following prediction can be established:

H₂ Board size is negatively related to the *CARs* for the target.

Reference [12] demonstrates positive stock price reactions to the selection of outside directors; [13] illustrates negative stock market reactions to the announcement of inside director appointments. Reference [2] attributes high target gains to boards dominated by outside directors. The documented benefit of independent directors as objective supervisors of the firm's managerial performance translates into positive signal to the market upon an M&A announcement. In turn, the following hypothesis pertaining to board independence proxied by the proportion of outside directors on the board in relation to the *CARs* for the target can be proposed:

H₃ Board independence is positively related to the *CARs* for the target.

Reference [10] links negative returns surrounding M&A announcements to low D&A ownership and lack of board independence. Reference [2] claims that significant board director ownership and board dominance by outside directors increase the board's ability and incentives to monitor and discipline managers. This enhancement should help align interests between managers and shareholders and motivate banks to pursue only mergers and acquisitions that can further increase stockholder wealth. If so, a positive relationship should exist between D&O ownership and the *CARs*. In essence, the following hypothesis can be framed:

H₄ D&O ownership is positively related to the *CARs* for the target.

Reference [9] documents that abnormal returns resulting from acquisition announcements for small firms are approximately 2.24 percent higher than those for large firms. Once acquired/merged, small target banks should benefit from cost reduction, economy of scale, and competitiveness enhancement; large target banks may suffer from cultural clash with their M&A counterparts. Therefore, a negative relationship is expected between bank size and the *CARs*. As a result, the following hypothesis can be synthesized.

H₅ Bank size is negatively related to the *CARs* for the target.

III. DATA AND METHODOLOGY

A. Data and Descriptive Statistics

The sample consists of 50 bank holding companies (BHC hereafter) that had stock price data available from the Center for Research in Security Prices (CRSP), launched their IPOs between 1996 and 2004, and became M&A targets within two years after going public. This period of time is selected because the archive of historical documents retrieved from the Electronic Data Gathering, Analysis, and Retrieval System (EDGAR) of the Securities and Exchange Commission (SEC) at the onset of this research contains initial prospectus and proxy statements of BHCs from 1996 through 2004. Information specific to corporate governance such as board size and independence, and D&O ownership is obtained from SEC filings, notably the registration statements and prospectus. Other sample information is obtained from Securities Data Corporation's (SDC) Global New Issues database. Accounting data are obtained from Standard and Poor's Research Insight.

Table 1 reports number of BHCs with M&A activities on an annual basis. A majority of the M&As, 78%, are concentrated in years 2001-2004. Table 2 lists descriptive statistics for the sample banks. According to the table, 40% of the target banks carry D&O insurance; board size varies from as small as 5 directors to as large as 22 directors with an average of 8.94; outside directors make up as little as 13% of their board or as much as 93% of their board with an average of 71.02%; D&O ownership ranges between 1% and 93% with an average of 18.37%; target bank size captured by total assets shows a minimum of \$1.18 million, a maximum of \$11,27 billion, and an average of \$728.43 million. Also reported in Table 2 are the respective medians for the same five variables.

TABLE 1. Annual List of Sample M&A Activities

Year	# of M&As	%
1998	3	6
1999	3	6
2000	5	10
2001	10	20
2002	8	16
2003	10	20
2004	11	22
Total	50	100

TABLE 2. Descriptive Statistics

Variables	Min.	Max.	Mean	Median
D&O Insurance ($D\&OINS_i$; dummy: 1 or 0)	0	1	0.40	0
Board Size ($BSIZE_{it}$)	5	22	8.94	9
% of Outside Directors ($DIND_{it}$)	13%	93%	71.02%	75%
D&O % of Ownership ($D\&OOWN_{it}$)	1%	93%	18.37%	7%
Assets (mm)	\$1.18	\$11,266.64	\$728.43	\$259.71

B. Methodology

A standard event study approach is adopted in this study. The abnormal return, A_{it} , for the common stock of the i th target bank on event date t is defined as follows:

$$A_{it} = R_{it} - E(R_{it}),$$

where R_{it} is the stock return of the i th target bank on day t ; $E(R_{it})$ is its expected return calculated using the Capital Asset Pricing Model. The estimation covers a period set at 10 days prior to until 10 days after the announcement. The cumulative abnormal return, CAR_{i,T_1,T_2} , for target bank i is defined as follows:

$$CAR_{T_1,T_2} = \sum_{t=T_1}^{T_2} A_{it},$$

where T_{1i} and T_{2i} are the two days pertaining to target bank i for the test time window $[T_1, T_2]$. Upon the derivation of $CARs$ for all sample banks, a cross-sectional regression model in the following form is performed.

$$CAR_i = a + b_1 D\&OINS_i + b_2 BSIZE_i + b_3 DIND_i + b_4 D\&OOWN_i + b_5 LnAssets_i + e_i,$$

where a is the intercept term; $D\&OINS_i$ is a dummy variable that takes the value of one if D&O has insurance coverage (for target bank i) at the time of the M&A announcement and zero otherwise; $BSIZE_i$ is the board size measured by the number of directors on the board; $DIND_i$ is the degree of board independence captured by the proportion of outside directors on the board; $D\&OOWN_i$ is the percentage of shares of stock owned by D&Os; $LnAssets_i$, the natural logarithm of total assets, captures bank size; e_i is the error term.

IV. EMPIRICAL RESULTS

The $CARs$ for the four time windows around the M&A announcement date, $(-1, 0)$, $(0, 0)$, $(-1, +1)$, and $(-10, +10)$, are calculated, respectively. Related test results are reported in Tables 3 and 4. Based on Table 3, the respective $CARs$ for the four time windows, 11.84%, 10.58%, 16.26%, and 17.75%, are all significant at the 1% significance level. Furthermore, at least 72% of the 50 sample banks have benefited from M&A announcements.

TABLE 3. Initial M&A Announcements

Days	N	Mean $CARs$	Positive vs. Negative	Positive Response (%)	Patell Z-Score
$(-1,0)$	50	11.84%	36:14	72	33.031***
$(0,0)$	50	10.58%	36:14	72	41.131***
$(-1,+1)$	50	16.26%	43:7	86	37.572***
$(-10,+10)$	50	17.75%	40:10	80	15.178***

Note: *** denotes statistical significance at the 1% significance level, using a two-tail test.

TABLE 4. Cross-Sectional Analysis of $CARs$

Variable	Model #1 $CARs$ $(-1, 0)$	Model #2 $CARs$ $(0, 0)$	Model #3 $CARs$ $(-1, +1)$	Model #4 $CARs$ $(-10, +10)$
Intercept	0.28757	0.28317	0.34239	0.32788

	(1.93)*	(2.05)**	(2.37)**	(2.06)**
$D\&OINS$	0.00529 (0.12)	0.00404 (0.1)	0.06098 (1.42)	0.09639 (2.03)**
$BSIZE$	-0.00568 (-0.69)	-0.00833 (-1.1)	-0.01425 (-1.79)*	-0.01305 (-1.49)
$DIND$	0.11355 (0.87)	0.10212 (0.84)	0.16329 (1.28)	0.07915 (0.56)
$D\&OOWN$	-0.02049 (-1.17)	-0.01911 (-1.18)	0.0269 (1.58)	0.03625 (1.94)*
$LnAssets$	-0.03599 (-2.18)**	-0.03115 (-2.03)**	-0.0396 (-2.47)**	-0.02975 (-1.68)

Notes: Heteroscedasticity-consistent t-statistic [15] is used to measure significance of parameter estimates and is reported inside the parentheses. * and ** denote statistical significance at the 10% and 5% significance levels, respectively, using a two-tail test.

Table 4 covers the cross-sectional regression results for the variation of the $CARs$ associated with M&A announcements. The significantly positive intercept across all four time windows clearly indicates that M&A announcements benefit target banks. The mention of D&O insurance coverage in the prospectus of the target ($D\&OINS$) is significantly positive in time window $(-10, +10)$, confirming H_1 that D&O insurance coverage is positively related to the $CARs$ for the target. Board size ($BSIZE$) registers its negative significance in time window $(-1, +1)$, validating H_2 that board size is negatively related to the $CARs$ for the target. Board independence does not display any significance even though it does consistently carry the hypothesized positive sign. Therefore, board independence does not appear to be a determining factor to target returns surrounding M&A announcements. The projected positive relationship between the D&O ownership ($D\&OOWN$) and the $CARs$ shows its significance in time window $(-10, +10)$. While the coefficient in time windows $(-1, 0)$ and $(0, 0)$ carries a contradicting, negative sign, neither is significant at any conventional significance level. Thus, the empirical finding supports H_4 that D&O ownership is positively related to the $CARs$ for the target. Finally, the target bank size ($LnAssets$) demonstrates a significant, negative relationship with respect to the $CARs$ in three time windows: $(0, 0)$, $(-1, +1)$, and $(-1, 0)$, suggesting the existence of size effect. Thus, small target banks gain more from M&A announcements than large ones do. One plausible explanation for this is that small banks are more likely than large banks to capitalize on cost reduction, economy of scale, and/or competitiveness enhancement after mergers and acquisitions.

V. CONCLUSIONS

The study finds that a majority of the sample target IPO banks benefit from M&A announcements with an average gain of more than 10%. The value enhancement is linked positively to D&O insurance coverage and ownership and negatively to board size. Board independence fails to command any significance, though. In contrast, bank size illustrates a significantly negative relationship with respect to the $CARs$, suggesting that small banks gain more than large banks surrounding M&A announcements. This documented size effect may be attributed to potential cost reduction, economy of scale, and competitiveness enhancement that can be realized by small-size target banks once M&As are completed successfully and warrants further attention. Future

research should also be devoted to the investigation of potential impact of other corporate governance characteristics, such as D&O compensation plan and reputation, and other control variables, such as bank age and geographical presence, on target bank returns surrounding

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