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CORPORATE GOVERNANCE STRUCTURE AND MERGERS

Elijah Brewer III
DePaul University and Federal Reserve Bank of Chicago

William E. Jackson III
The Smith Foundation Chair of Business Integrity, University of Alabama

Julapa A. Jagtiani
Federal Reserve Bank of Philadelphia

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RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA
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ABSTRACT

Few transactions have the potential to generate revelations about the market value of corporate assets and liabilities as mergers and acquisitions (M&A). Corporate governance and control mechanisms such as independent directors, independent blockholders, and managerial share ownership are usually important predictors of the size and distribution of the incremental wealth generated by M&A transactions. We add to this literature by investigating these relationships using a sample of banking organization M&A transactions over the period 1990-2004. Unlike research on *nonfinancial* firms, the impact of independent directors, share ownership of the top five managers, and independent block holders on *bank* merger purchase premiums in this environment is likely to be measured more consistently because of industry operating standards and regulations. It is also the case that research on banks in this area has not received adequate attention. Our model controls for risk characteristics of the target banks, the deal characteristics, and the economic environment. Our results are robust. They support the hypothesis that independent directors may provide an important internal governance mechanism for protecting shareholders' interests, especially in large-scale transactions such as mergers and takeovers. We also find the results to be consistent with the hypothesis that independent blockholders play an important role in the market for corporate control as does managerial share ownership. But these effects dampen the impact of independent directors on target shareholders' merger prices. Our overall findings would support policies that promote independent outside directors on the board of banking firms in order to provide protection for shareholders and investors at large.

JEL classification: G2, G21, G28, G3
Keywords: Corporate governance; bank merger; merger purchase premium; performance; bank holding companies

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1. Introduction and Summary

The recent financial crisis has revealed severe shortcomings in the corporate governance structure of financial institutions. These institutions often failed to provide, when it was most needed, the appropriate internal control that banking firms need in order to cultivate sound business practices. In this study, we focus on how the composition of the board of directors and the corporate governance structure, in general, can provide the checks and balances firms need in the takeover market and how they influence shareholders' payoffs in mergers between banking organizations. This study focuses on the impact of the target's corporate governance structure on the purchase premium paid by the acquirer, and on the target and acquirer shareholders' abnormal returns around the merger and acquisition (M&A) announcement date. Our sample includes all mergers of publicly traded banking firms during the period 1990-2004.

Large-scale transactions like M&As are well suited to test whether board composition and the corporate governance structure have negative implications for shareholder wealth of either the target or the acquirer. The 14-year period ending with 2004 witnessed an unprecedented pace of bank M&As. Between 1990 and 2004, the number of bank M&As averaged about 435 per year compared with 345 per year over the period 1980-1989. As a result, the number of banks operating in the U.S. declined by approximately 40 percent between 1990 and 2004. Our results help advance an understanding of the likely directions and consequences of continuing M&As in the banking industry.

Previous studies suggest that corporate boards could act as an important internal governance mechanism for protecting shareholders' interests (see Fama, 1980; and Fama and Jensen, 1983). Specifically, *independent outside directors* are thought to represent the interests of shareholders, help mitigate shareholder/management agency problems, and thus could potentially play an important monitoring role in merger transactions. If independent outside directors are more likely to make decisions consistent with maximizing shareholder's wealth, then the purchase premium in merger transactions is

expected to be higher for targets with a greater proportion of independent outside directors than for other targets. Cotter, Shivdasani, and Zenner (1997) find that for *nonfinancial* firms that are the targets of tender offers, the initial tender offer premium, bid premium revision, and target shareholder gains are higher when the target's board is independent. We examine the impact of independent outside directors on the merger prices of banking firms.

The corporate governance literature also identifies factors other than board independence that may be important in the pricing of mergers. Specifically, previous studies suggest that *share ownership by top-tier managers (insiders)* could have an important role in aligning the interests of managers and those of shareholders, thus enhancing shareholders' control of the firm (see Mikkelson and Partch, 1989, and Cotter and Zenner, 1994). Higher share ownership by the target's top-tier managers could lead to more incentives to push for a larger purchase premium. We empirically test the impact of managerial share ownership on bank merger prices.

In addition to board independence and insider/managerial share ownership, large blockholders have also been found to play an important role in determining the firm's value. In particular, *independent large blockholders*, by exerting pressure on top management and potentially threatening to vote their shares to unseat management, could help to align the interest of managers with those of shareholders (see Shleifer and Vishny, 1986; Barclay and Holderness, 1991; and Hadlock, Houston, and Ryngaert, 1999). We include the independent large blockholders' variable in our analysis to test for its influence on merger prices.

Our results indicate a significant positive relationship between the independence of the target's board of directors and the size of the purchase premiums received by the target. In addition, we find a strong negative relationship between the presence of large independent blockholders and merger prices, as well as a negative relationship between managerial share ownership and merger prices. This negative correlation may be partially the result of large independent blockholders' penchant for increasing the likelihood that a firm will become a merger or acquisition target and complete the merger transaction. The independent director results imply that as board composition shifts toward more "inside

directors," the target's merger prices tend to fall, possibly due to insider directors' willingness to "sacrifice" shareholders in order to keep their jobs and retain other benefits.

This paper fills the literature gap related to the role of corporate governance (board independence, insider or managerial share ownership, and independent large blockholders) in the U.S. banking industry, especially in large transactions like mergers. The remainder of this paper proceeds as follows. A brief literature review is presented in section 2. Our data and empirical methodology are described in section 3. Our results are outlined in section 4. And our conclusions are presented in section 5.

2. Literature Review

Studies on M&As of nonfinancial firms have produced mixed results about the determinants of merger premiums, due to whether a merger is hostile or friendly and whether there are anti-takeover tools in place to counter unsolicited bids. Shleifer and Vishny (1986) and Stulz (1988) show that in an environment without takeover defenses, even if target managers are opposed to a takeover, large takeover purchase premiums help hostile bids succeed by providing an incentive for target shareholders to fight management resistance. Moeller (2005) indicates that anti-takeover tools employed in the 1990s tend to shift power from target shareholders to target managers. If target managers trade purchase premiums in return for private benefits, as found in Hartzell, Ofek, and Yermack (2004) and Wulf (2004), target shareholders could lose part of the potential premium they would have received in a successful hostile transaction. Moeller (2005) shows that strong target managers, or weak target shareholders, are associated with lower purchase premium. Unlike analyses of nonfinancial firms, our analysis of bank mergers is less likely to suffer this ambiguity, since bank mergers require time-consuming regulatory approval, making hostile takeovers extremely difficult to execute.

Independent Outside Directors — Several authors have suggested that corporate boards can be an important internal governance mechanism for protecting shareholders' interests (see Fama, 1980, and Fama and Jensen, 1983). Specifically, independent outside directors are thought to represent the

interests of shareholders because they could help to mitigate shareholder/management agency problems and could potentially play an important monitoring role in large-scale transactions, such as mergers. An independent board is likely to have a better alignment with shareholders' interests because it is in a better position to monitor and control managers (see Dunn, 1987). In addition, independent directors could bring a greater breadth of experience to the board and improve the board's effectiveness (see Firstenberg and Malkiel, 1980, and Vance, 1983). If independent outside directors are more likely to make decisions consistent with maximizing shareholder's wealth, then shareholder/management agency problems will be reduced.

Consistent with this claim, Brickley, Coles, and Terry (1994); Byrd and Hickman (1992); and Rosenstein and Wyatt (1997) find relatively better stock market performance for firms whose board of directors is composed of relatively more outside, independent directors. Weisbach (1988) and Byrd and Hickman (1992) find that independent boards tend to respond to poor performance by replacing the chief executive officer (CEO). Subrahmanyam, Rangan, and Rosenstein (1997), however, find that independent boards have no extra value in evaluating acquisition targets.

Cotter, Shivdasani, and Zenner (1997) find that for *nonfinancial* firms that are the targets of tender offers, the initial tender offer premium (over the target's share price), bid premium revision, and target shareholder gains are higher when the target's board is independent.[1] Brickley and James (1987) find that in states with more active banking takeover markets, the average fraction of the bank's board that is composed of outside directors is higher than in other states, suggesting that board structure is important in determining the level of corporate control activity. In this paper, we go a step further and examine the impact of independent outside directors on merger prices given the level of corporate control activity.

In addition to board independence, the literature also identifies other factors that may be important to enhancing shareholders' control of a firm. These factors are board size, equity ownership by inside directors/top-tier managers, and the presence of large blockholders.

[1] Board independence here is defined as having more than 50 percent independent directors.

Board Size — Yermack (1996) found an inverse relationship between firm value and board size, suggesting that smaller boards may be more effective decision makers. However, his sample omitted banks and other financial firms. We examine the impact of board size on merger prices.

Managerial Share Ownership — Morck, Shleifer, and Vishny (1988) find that share ownership by managers may be an important device for aligning the interests of management with those of shareholders. Mikkelson and Partch (1989) and Cotter and Zenner (1994) find that share ownership by managers is an important determinant of merger market efficiency. For bank mergers, Brickley and James (1987), Allen and Cebenoyan (1991), and Carter and Stover (1991) find that share ownership by managers and directors is beneficial to shareholders of banks. Similarly, for nonbanking studies, Mikkelson and Partch (1989) and Cotter and Zenner (1994) show that with greater share ownership by managers, managerial gains from merger offers are larger and managerial resistance less likely. McConnell and Servaes (1990) demonstrate that the larger proportion of share ownership by managers increases firm value and thus should lead to a larger purchase premium. On the other hand, Moeller (2005) offers an alternative view that suggests a negative relationship between share ownership of the target's top-tier managers and merger prices. This view claims that managers tend to trade extra merger purchase premiums for their own private benefits (such as job security and higher compensation and perquisites in the post-merger organization) at the expense of target shareholders. Consistent with Moeller (2005), Hartzell, Ofek, and Yermack (2004), and Wulf (2004) examine how the pecuniary and nonpecuniary benefits that target CEOs receive in merger transactions influence target shareholders' wealth. They find that managers pursue personal interests and are willing to trade off purchase premiums for personal benefits. We include a measure of managerial ownership in our empirical analysis.

Our study complements Moeller (2005) in two important respects. First, we use a single industry, which helps eliminate the need for (often imprecise) industry control variables. More important, the banking industry is exceptionally suited to this type of analysis because of the infrequency of hostile takeovers. As mentioned earlier, whether a merger is hostile or friendly in nature could cause the

coefficient estimates for the impact of managerial share ownership on the premium received by shareholders to reverse signs (see Moeller, 2005). This presents certain estimation and identification problems. Second, we use a broader definition of managerial ownership than Moeller (2005). Lefanowicz, Robinson, and Smith (2000) suggest that managers tend to make decisions as a team, especially for large-scale transactions like mergers. To capture this impact on target merger prices, we use share ownership information on the top five managers as reported in the proxy statements.

Independent Large Blockholders — Previous research, such as Shleifer and Vishny (1986); Barclay and Holderness (1991); and Hadlock, Houston, and Ryngaert (1999), has shown that unaffiliated (independent) large blockholders can have an impact on corporate control decisions. They may facilitate control changes by using the "threat" to vote their shares to unseat management in a proxy contest. They may also exert pressure on top management to accept a reasonably attractive acquisition offer, resulting in larger gains to target shareholders. Brook, Hendershott, and Lee (1998) find consistent results that banks with large independent blockholders are more likely to become a takeover target, but on the contrary, they find that the presence of independent blockholders is associated with smaller merger announcement period returns. We test for the effects of the presence of independent large blockholders on merger prices, controlling for a run-up in stock prices prior to the announcement date.

Other Control Factors — The literature documents several factors other than corporate governance that may have a significant impact on merger prices. These other factors include such items as asset size, profitability, capital-asset ratio, and means of payment (see Beatty, Santomero, and Smirlock, 1987; Cheng, Gup, and Wall, 1989; Fraser and Kolari, 1988; Rogowski and Simonson, 1989; Rose, 1991; and Brewer, Jackson, Jagtiani, and Nguyen, 2000). Shawky, Kilb, and Staas (1996) find that smaller targets tend to be offered a larger bid premium, and Palia (1993) finds that the relative size of targets and bidding banks is important in explaining the variation in the bid premiums. With regard to performance, Shawky, Kilb, and Staas (1996) and Brewer, Jackson, Jagtiani, and Nguyen (2000) find that greater merger premiums tend to be offered to target banks with higher profitability. We control for all of these factors in our empirical specification.

Our results shed light on whether the banking organization's board of directors' structure, the presence of independent large blockholders, or managerial share ownership influence M&A purchase premiums, thus affecting the size and distribution of wealth created by M&A transactions.

3. The Data and Empirical Methodology

3.1 Data Description:

The data used to examine the relation between merger prices, corporate governance, and control variables are collected from a sample of bank M&A transactions that took place from 1990 to 2004. The details about the merger deals are obtained from Thomson Financial Securities Data (formerly Securities Data Corporation (SDC)). We started with the SDC sample of all bank mergers between 1990 and 2004, a total of 11,252 transactions. Of these reported 11,252 transactions, less than 65 percent were completed. We restrict our analysis to only completed merger transactions, yielding 7,185 observations. Most of these 7,185 reported merger transactions are then excluded because they represent internal restructurings (where reported target and acquirer have the same *CUSIP* number) rather than changing ownership and control, or because they are mergers that involve foreign entities, semi-private firms (where stock price of the target is not available), or missing deal information. These exclusions reduce the number of observations from 7,185 to 693. Of these 693 transactions, we were able to obtain complete corporate governance information from proxy statements for 558 firms.

Financial data are obtained from the quarterly reports filed by banks and thrifts (Call Reports) and bank holding companies (Y-9 Reports). The merger announcement date, target name, acquirer name, value of the deal, and other characteristics of the merger announcement come from the Thomson Financial Securities Data database. Summary statistics of the sample are presented in Table 1.

3.2 The Basic Model:

Shareholder prices

We proxy the return to the target shareholders using two different measures: (1) the purchase premium at the announcement date over the target's stock price 20 trading days before the announcement date and (2) the cumulative abnormal returns (CARs) over the event window [-1, 0] around the merger announcement date. We also measure the CARs to the acquirer over the same event window.

Our measure of the abnormal returns associated with the merger announcement follows the event study-based methodology in Bradley, Desai, and Kim (1988). Specifically, we calculate the CARs over the event window [-1, 0] for targets and acquirers around the merger announcement date. The market model is used to calculate abnormal returns ($AR_{i,t}$) for firm i and for event date t as:

$$AR_{i,t} = R_{i,t} - \hat{\alpha}_i - \hat{\beta}_i R_{m,t},$$

where $R_{i,t}$ = return to firm i on day t; $\hat{\alpha}_i$, $\hat{\beta}_i$ = market model parameter estimates, and $R_{m,t}$ = return to the value-weighted NYSE market portfolio on day t. The market model parameter estimates for each firm are obtained using a maximum of 240 trading days of daily returns data beginning 300 trading days prior to the event date — i.e., market returns over the window [-300, -60] to avoid any impact from leakage of news about the mergers. The cumulative abnormal return ($CAR_{i,[-1,\ 0]}$) for the event window [-1, 0] is computed as follows:

$$CAR_{i,[-1,0]} = \sum_{-1}^{0} AR_{i,t}$$

The z-statistic is used to determine whether the abnormal returns are statistically significant.

The Importance of Board Composition and Independent Directors:

Our empirical model specification is designed to capture the impact of the degree of shareholders' control (as proxied by the proportion of independent directors, the target's managerial

share ownership, and the presence of independent large blockholders) on the takeover premiums and the CARs around the merger announcement date.

Board Composition — Each of the directors is classified as being independent or non-independent as follows. Non-independent directors are present or past employees of the bank, directors who are family members of insiders, or directors who have some business ties to the bank (e.g., attorneys whose firm represents the bank, consultants to the bank). Independent directors are neither current nor past employees of the bank, and they must not have substantial business or family ties with management (as indicated in the proxy statement) or have potential business ties with the bank. Cotter, Shivdansani, and Zenner (1997) define a board as independent when independent directors are more than 50 percent of the board membership. However, unlike boards at nonbanking firms, the average bank board tends to have substantially more than 50 percent independent directors. The median proportion of independent directors for our sample of banking organizations is 75.5 percent. We use this number to create an indicator variable for board independence. The indicator variable *Indepdirect* is equal to one if the percent of the board of directors that is independent is greater than 75.5 percent, and zero otherwise.

Board Size -- Previous study finds that the impact of corporate governance on the abnormal returns to shareholders may vary according to firm size – see Chhaochharia and Grinstein (2007). In addition, since boards of directors at larger banks tend to have a large proportion of independent outside directors, we control for the target's board size, *BDSIZE*, in our empirical specification to isolate the impact of independent outside directors on the purchase premiums and the CARs.

Target's Managerial Share Ownership — Share ownership by managers could play a significant role in aligning the interest of managerial and board interests with those of shareholders. It is measured as a percentage of equity ownership by the top-tier managers (as reported in the last proxy statement prior to the merger announcement date). Following Lefanowicz, Robinson, and Smith (2000), we define top-tier managers as the top five executives typically reported in the proxy statements. Rather than restricting the managerial share ownership to only the CEO's equity ownership, we include the top

five executives' equity ownership in recognition that these other senior executives could also play an important role in corporate control changing events. The indicator variable *MSHARE* is equal to one if the target's managerial share ownership is greater than the median percentage (5.1809 percent) for our sample targets, and zero otherwise.

Independent Large Blockholders — The presence of large block shareholders could play an important role in determining the degree of shareholder control and could help to mitigate any agency conflicts between shareholders and manager, since shareholder intervention by large block shareholders would be more likely. Previous research finds that independent block shareholders can have an impact on important issues such as corporate control decisions. We define an independent blockholder (at least 5 percent ownership) as a blockholder that does not have substantial business or family ties with management (as indicated in the proxy statement). We include in the analysis a binary variable *Indepblock* that is equal to one if there is a large independent blockholder (with at least 5 percent share ownership), and zero otherwise.

Control Factors:

Our empirical specification controls for other important factors not related to corporate governance and board structure but referenced in the corporate finance literature. These factors include:

Cash vs. Stock Offer — Whether the merger deals are stock offers or cash offers could potentially affect the acquisition purchase premiums and the CARs because of the differential tax implications associated with these offers. A cash offer may be viewed positively by the market, since it may allow the acquiring bank to increase its depreciation tax shields, since the depreciation basis of the acquired assets will rise to their market value. For the targets, however, a cash offer may be viewed negatively because it imposes a greater immediate tax burden to target shareholders. The empirical findings so far have been mixed. Shawky, Kilb, and Staas (1996) find that the bid premiums offered to target banks are larger for stock deals than for cash deals. However, Cornett and De (1991) find that mergers that are financed with only stock or only cash produce higher abnormal returns to target shareholders relative to those financed with combinations of stock and cash. Other studies that examine

this issue in the context of nonbank mergers find the medium of payment to be unimportant (see Eckbo and Langohr, 1989, and Travlos, 1987). We include the means of payment (*STOCK*) as a control variable to capture any potential impact of the means of payment on shareholder prices. The binary variable *STOCK* is equal to one if more than 50 percent of the value is paid in stocks, and zero otherwise. This information is obtained from the Thomson Financial Securities Data database.

Profitability and Variability of Returns — Acquisition purchase premiums and the CARs could be influenced by a variety of factors other than shareholder control and means of payment variables. Several of these factors reflect the difference between the value the acquirer places on control of the target versus the value the market places on owning a non-controlling interest in the firm. The starting point for measuring the value of the target both as a stand-alone firm and in an acquisition is its current profitability and its variability of returns. We measure the target's profitability (*RET*) by its stock market returns over the one-year period (252 trading days) ending 60 trading days prior to the merger announcement date. The variability of returns (*VRET*) is measured by the variance of the target's daily stock market returns over the one-year period (252 trading days) ending 60 trading days prior to the merger announcement.

Relative Asset Size of Target and Acquirer — The relative asset ratio (*RELATIVE*) is meant to capture the acquirer's ability to reduce the costs of producing the combined organization's product mix by achieving economies of scale. The variable *RELATIVE*, which is defined as the target's total assets divided by the acquirer's total assets, may be either positively or negatively associated with the attractiveness of a given target. If a larger relative asset ratio provides a greater opportunity for merger-related efficiencies to be realized, then the relative asset ratio should be positively correlated with merger prices. A countervailing factor in large bank mergers, however, is the difficulty of merging two large banking organizations or two organizations of equal size. According to organization theorists, melding cultures in a merger is more difficult and costly when the target is more equal in size to the acquirer (see Benston, Hunter, and Wall, 1995).

Book to Market Value of Assets — The book value of total assets divided by the market value of total assets is included as a measure of how investors view the target's prospects. Market value of total assets is computed by subtracting the book value of capital from the book value of total assets and adding the market value of capital (defined as share price times the number of common shares outstanding).

Capitalization or Leverage Ratio — Banking organizations are required by regulation to hold enough capital to support the risk they take. This risk-based minimum capital requirement and the leverage ratio are aimed at reducing the risk-taking propensities of bank shareholders. Previous studies have found mixed results related to the impact of capitalization. According to the "signaling hypothesis," "it will prove less costly for a 'good' bank to signal better quality through increased capital than for a 'bad' bank" (see Berger, Herring, and Szego 1995). Therefore, target banks with lower leverage can signal favorable information, leading to higher acquisition premiums and thus merger prices. Conversely, Ross (1977) argues that higher, rather than lower, leverage signals positive information, since signaling good quality through high leverage would be less onerous for a "good" bank than for a "bad" bank. Furthermore, Shawky, Kilb, and Staas (1996) find that higher bid premiums tend to be offered to target banks with higher leverage due to more efficient use of capital. We include the target's book value of the capital-to-asset ratio (*CRATIO*) in the quarter ending prior to the merger announcement date as a proxy for the bank's capital adequacy and leverage.

Target's Excess Returns — To control for the possible anticipation of a takeover that could have caused a run-up of the target's share price prior to the merger announcement date, we include the target's excess return over a 10-day trading period ending 20 trading days prior to the merger announcement date.

Other Control Factors — Other factors include the natural logarithm of the target's total assets and the time-period indicator variables ($TIND_t$ where t=2,...,T) for the year of the merger announcement that ranges between 1990 and 2004. These year indicator variables are introduced to account for the

effect of omitted macroeconomic and other activity over time and thus merger prices.variables that may influence the overall level of acquisition

4. The Empirical Results

4.1 Descriptive Statistics

Table 1 provides descriptive statistics for our sample of 558 mergers. Target shareholders received a mean purchase premium of over 35 percent above the target's stock price (as of 20 trading days prior to the deal announcement). The acquirers are, on average, much larger than the targets, where the mean ratio of target assets to the acquirer's assets is 0.2676. The mean share ownership of the target's top five managers prior to the merger is 7.48 percent. On average, over 73 percent of the targets' boards are independent outside directors. Independent large blockholders hold a little over 7.75 percent of the common shares, on average. Over 83 percent of the transactions are stock rather than cash deals in which more than 50 percent of the value is paid in stocks.

Table 2 presents the correlation coefficients among the various explanatory variables in our model. Independent boards tend to be associated with larger board size and smaller managerial share ownership. In addition, targets with a larger managerial share ownership ratio tend to exhibit greater variability of returns. And large managerial share ownership is more common for a smaller board size.

4.2 Corporate Governance and Target Shareholder Returns

The impact of the target's corporate governance structure on the merger premium (based on the target's stock prices as of 20 trading days prior to the merger announcement date) and on the target shareholders' CARs is presented in Table 3. Columns (1) and (3) show the results for a basic model that specifies each target shareholder price only as a function of shareholder control and a means of payment variables plus year fixed effects. Columns (2) and (4) of Table 3 add the control variables to the specifications in columns (1) and (3).

Independent outside directors — The significant positive coefficients of the variable *Indepdirect* in columns (1) and (3) of Table 3 indicate that independent boards are related to higher merger abnormal returns and purchase premiums secured by the target. This is consistent with the implication that as targets' corporate boards tilt toward a greater percentage of insider directors, merger prices for target shareholders will be lower.

Managerial share ownership — Columns (1) and (3) of Table 3 also include a measure of the target's share ownership by top-tier managers (insiders). Note that these insiders may or may not be on the board of directors, but they do represent insiders' ownership and voting rights. The coefficients of the variable *MSHARE* are negative in both columns (1) and (3) of Table 3, although this is only marginally significant for the abnormal returns model in column (1) and insignificant for the takeover premium model in column (3). The results, however, suggest that more top-tier management equity ownership is associated with smaller merger prices. These results are consistent with earlier evidence on nonfinancial firms in Moeller (2005), who finds that a low fraction of CEO share ownership is associated with larger takeover premiums in his sample of nonfinancial targets.

Independent large blockholders — The coefficients of the variable *Indepblock* are negative and significant (at the 1 percent level or better) for both the target's abnormal returns (column 1) and the takeover premium (column 3). This is consistent with an argument that when a target does not have independent large blockholders that could force acceptance of a "reasonable" takeover offer, top-tier managers tend to demand an excessively high purchase premium (to compensate for loss in job security and other benefits), thus leading to higher abnormal returns to target shareholders and larger takeover premiums.

Columns (2) and (4) of Table 3 add the control variables to the specifications in columns (1) and (3). The results in columns (2) and (4) are qualitatively similar to those in columns (1) and (3). *Indepdirect* remains positively and statistically correlated with both measures of merger prices. The *Indepblock* variable also remains negative and statistically significantly correlated with both measures of

merger prices, and the magnitude of the coefficient estimates in columns (2) and (4) is larger than those in columns (1) and (3).

The coefficients on the managerial ownership variable, *MSHARE,* remain negatively correlated with both measures of merger prices but is also now statistically significant at the 1 percent level for both abnormal returns (column 2) and takeover premiums (column 4). This is consistent with an argument that there is significant conflict of interest as share ownership by top-tier managers is less likely to maximize shareholders' wealth due to trading merger premiums for their own private benefits (such as future job opportunities with acquirer and higher compensation and perquisites in the post-merger organization). This pattern of conflict of interest seems to prevail in both banking (highly regulated) and nonbanking firms.

Control Factors — None of the coefficients on the return variables (stock market return of the target, *RET*, and the variance of the stock market return of the target, *VRET*) are significant in either the target abnormal return equation or the target purchase premium equation. The size of the target (proxied by *Log of TA)* is negatively correlated with both measures of merger prices and is statistically significant in both equations. The coefficient on the relative asset sizes of the two firms, *RELATIVE*, is significantly negative (at the 1 percent level) in explaining the target abnormal returns, suggesting that larger targets (relative to the acquirers) are perceived less positively by the market and generally tend to have lower CARs, probably due to increasing difficulty in integrating larger firms. In the purchase premium equation, the coefficient on the relative asset variable is negative but not significant. The target's book value-to-market value ratio is positively correlated with merger prices, while the target's capital-asset ratio is negatively correlated with merger prices. The significantly positive coefficients on the target's book value-to-market value ratio in both columns (2) and (4) indicate that there may be greater opportunities for the bidding bank to improve the target's efficiency, ceteris paribus, when the target's market value of assets is not much larger than the book value, thus resulting in larger abnormal returns to target shareholders and larger takeover premiums. The significantly negative coefficients on the capital-asset ratio in columns (2) and (4) are consistent with the signaling argument by Ross (1977) that signaling good

quality through high leverage would be less onerous for a "good" bank than for a "bad" bank. It is also consistent with an argument that a higher leverage ratio represents a more efficient use of capital, thus leading to a higher purchase premium. The variable *RUNUP* is included to separate out the run-up effect of the target's share price prior to the merger announcement date, and the coefficients are not significant in either of the equations.

4.3 Corporate Governance and Acquirer Shareholder Returns

The impact of the target's corporate governance structure on the CARs to acquirers around the merger announcement date is presented in column (3) of Table 4. For convenience, the parallel impact on the target's abnormal returns for the same window (column 1) and on takeover premiums (column 2) is also included in Table 4. The model specification here is slightly different than that of Table 3. In these specifications, we define a jointly low shareholder control indicator variable as equal to 1 for targets with a percentage of managerial share ownership greater than the sample median and at least one large independent blockholder, and zero otherwise. This variable selects the 28 percent of the sample firms with the lowest levels of target shareholder control.

Managerial share ownership and large blockholders — The coefficients of the indicator variable for managerial share ownership being larger than the sample median and (jointly) having at least one independent blockholder are significantly negative in both columns (1) and (2). The results indicate that a larger managerial share ownership and the presence of large independent blockholders serve to reduce the target shareholders' merger prices in completed takeovers, both in terms of CARs around the merger date and in terms of purchase premiums. This is consistent with the results discussed earlier from Table 3, where the managerial share ownership and the presence of independent large blockholders were analyzed separately. Managerial share ownership at target banks does not seem to enhance firm value as predicted. In addition, independent large blockholders seem to use their power to push for completion of takeover attempts that may not be a perfect match, resulting in lower purchase premiums being accepted and smaller abnormal returns to target shareholders.

Unlike for target shareholders, the coefficient for this joint indicator variable is significantly positive in column (3). This indicates larger abnormal returns to shareholders of the bidding firm around the merger announcement date when the target has larger managerial share ownership (maximizing their own benefits rather than target shareholders' wealth) and at least one independent large blockholder (pressuring the target's management team to accept a reasonable but not so "great" offer). It is arguable that the acquirer may also contract with top-tier managerial shareholders to cooperate in mergers that would transfer wealth from target shareholders to the acquirer shareholders, possibly in exchange for job security and other perks in the combined organization.

Regarding independent outside directors, the target's independent directors benefit their shareholders in terms of larger CARs and larger takeover premiums, as indicated by significant positive coefficients of the *Indepdirect* variable in columns (1) and (2). This is consistent with results for the impact of independent directors found in previous studies for nonbanking firms. As shown in column (3), the impact of the target's independent outside directors on the acquirer shareholders is negative but insignificant.

Overall, we find that the low shareholder control indicator variable has a significantly negative effect on the purchase premium and abnormal returns to target shareholders but significantly positive abnormal returns to acquirer shareholders. This result suggests that when there is a low level of shareholder control (as proxied by relatively high managerial share ownership and the presence of a large independent blockholder), a target's management team is more likely to agree to merger terms that are more favorable to acquirers.

5. Conclusions

The objective of this paper is to examine the balance of control between top-tier managers and shareholders using data from bank mergers over the period 1990-2004. Several studies have investigated the role of independent outside directors at nonfinancial firms. Independent boards (with

more than 50 percent outside directors) have been reported in the corporate finance literature to be associated with larger shareholder gains and more effective monitoring of management. Unlike the corporate finance literature on nonfinancial firms, the role of independent outside directors in banking firms has not received much attention in the literature. The role of independent outside directors in banking firms could be very different from those of nonfinancial firms due to banking regulations and supervision (at the state and federal level), deposit insurance, and too-big-to-fail implications for very large banks.

We define bank boards to be independent if the proportion of independent directors is more than our sample median of 77.5 percent. We use criteria higher than the usual 50 percent used for nonfinancial firms because banks are more likely to seek more outside directors. Our model controls for the risk characteristics of the target banks, the deal characteristics, and the economic environment. The results are robust and indicate a significant positive relationship between independence of the target's board and the size of merger prices — i.e., the abnormal returns and the merger premiums accrued to target shareholders. Unlike independent outside directors, the target's managerial share ownership and the presence of independent blockholders have a negative impact on the merger price of the target bank.

Our results are consistent with the implication that as corporate boards increase the percentage of inside directors, merger prices negotiated for target shareholders tend to decrease. A possible explanation for this is that top-tier managers tend to trade potential takeover gains in return for their own personal benefits in terms of job security and other post-acquisition benefits with the bidding firm. The positive and significant results that we report in Table 4 for the acquirers' abnormal returns around the merger announcement dates support this conjecture.

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Table 1: Summary statistics for the variables used in the empirical specifications

This table presents the summary statistics for the variables used in the empirical analyses. The number of observations is 558.

Variable	Mnemonic	Mean	Median	Std. Deviation
Purchase premium over stock price 20 days before (%)	*PREM20*	35.80%	31.83%	24.77%
Target cumulative abnormal return [-1, 0]	*TCAR*	12.93%	9.01%	15.55%
Acquirer cumulative abnormal return [-1, 0]	*ACAR*	-1.28%	-0.99%	3.81%
Target stock market return over the 252 trading days 60 days prior to the merger announcement date (%)	*RET*	25.87%	22.52%	36.97%
Target variance of the daily stock returns over the 252 trading days 60 days prior to the merger announcement date	*VRET*	0.0007	0.0005	0.0012
Target assets/Acquirer assets (%)	*RELATIVE*	26.76%	14.95%	31.54%
Target's number of directors	*BDSIZE*	11.0197	10.0000	4.6706
Target's percentage of outside directors	*% Indepdirect*	73.3607	75.5000	14.1842
Target's percentage of equity ownership by large independent blockholders	*% Indepblock*	7.7593	5.4696	10.4123
Target's percentage of equity ownership by management	*% MSHARE*	7.4765	5.1809	8.1943
A binary variable equal to one if more than 50 percent of the value of the acquisition is paid in stock, and equal to zero otherwise	*STOCK*	0.8351	1.0000	0.3714
Target total assets prior to offer (Million)	*TA*	$6,410.5	$884.4	$24,394.4
Book value of total assets divided by market value of total assets	*B-M*	0.9498	0.9546	0.0498
Book value of capital divided by book value of total assets	*CRATIO*	0.0903	0.0827	0.0357

Table 2: Correlation coefficients of the variables in the empirical specifications

	RET	VRET	RELATIVE	BDSIZE	%Indepdirect	%Indepblock	%MSHARE	STOCK	TA	B-M	CRATIO	RUNUP
RET	1.00											
VRET	-0.0696	1.00										
RELATIVE	-0.0549	-0.0289	1.00									
BDSIZE	-0.0315	-0.0623	0.1123***	1.00								
%Indepdirect	0.0455	-0.1147***	-0.0072	0.3057***	1.00							
%Indepblock	0.0823*	-0.0273	-0.02	-0.1816***	0.0734*	1.00						
%MSHARE	-0.0793*	0.3603***	-0.1358***	-0.2548***	-0.3757***	-0.0317	1.00					
STOCK	0.002	-0.0133	0.0345	0.1302***	0.0513	-0.1321***	-0.0656	1.00				
TA	-0.0519	-0.0442	0.2446***	0.2299***	0.1506***	-0.055	-0.1463***	0.0777*	1.00			
B-M	-0.1632***	0.1624***	0.0162	-0.1062**	-0.0268	0.1064***	0.0923**	-0.2272***	-0.0985**	1.00		
CRATIO	-0.1378***	-0.0649	-0.0293	-0.1702***	-0.1786***	-0.1140***	-0.0048	-0.1129***	-0.1110***	-0.0007	1.00	
RUNUP	-0.1651***	-0.0676	-0.0438	-0.0626	-0.0003	0.0402	-0.035	-0.0676	0.0076	0.0151	-0.0105	1.00

Table 3: The impact of corporate governance variables on 20-day purchase premiums and cumulative abnormal returns [-1, 0]

BDSIZE is the size of target board of directors. *Indepdirect* is a binary variable for independent directors. It is equal to one if the proportion of independent directors is greater than the median percentage (75.50) for our sample of acquisitions, and zero otherwise. *MSHARE* is a binary variable for the target managerial share ownership. It is equal to one if the percentage of managerial share ownership is greater than the median percentage (5.1809) for our sample of targets, and zero otherwise. The percentage of equity ownership by management is obtained from the last proxy statement prior to the merger announcement date. *Indepblock* is a binary variable for large blockholders that do not have substantial business or family ties with management as indicated in the proxy statement. It is equal to one if there is at least one large independent blockholder, and zero otherwise. The specifications in columns (2) and (4) add the stock market return of the target over the 252 trading days 60 trading days prior to the merger announcement date (*RET*); the variance of the stock market return of the target using daily data over the 252 trading days 60 trading days prior to the merger announcement (*VRET*); the target banking organization's total assets divided by the acquirer's total assets (*RELATIVE*); a binary variable equal to one if more than 50 percent of the value is paid in stock, and equal to zero otherwise (*STOCK*); the book value of total assets divided by the market value of total assets; the book capital to book total assets ratio (*CRATIO*); and the cumulative excess returns (*RUNUP*) over a 10-day period 20 days prior to the merger announcement date. Market value of total assets is computed by subtracting the book value of capital from the book value of total assets and adding the market value of capital (defined as share price times the number of common shares outstanding). Time period indicators are included in all of the empirical specifications reported below. Robust t-statistics (with White's Correction) are reported in the column next to the coefficient estimates. We have 558 observations, as we excluded four transactions from the empirical specifications because they were outliers. The t-statistics and F-statistics are starred if they are significant at the 10 (*), 5(**), and 1 (***) percent level.

	Target return				Takeover premium			
	(1)		(2)		(3)		(4)	
	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio
Intercept	0.1716	4.58***	-0.0497	-0.27	0.3568	6.89***	-0.7280	-2.00**
BDSIZE	-0.0026	-1.94*	-0.0005	-0.33	-0.0057	-2.61***	-0.0004	-0.17
Indepdirect	0.0414	3.04***	0.0406	3.05***	0.0543	2.50**	0.0543	2.67***
MSHARE	-0.0254	-1.87*	-0.0402	-2.97***	-0.0129	-0.60	-0.0469	-2.30**
Indepblock	-0.0360	2.74***	-0.0392	-3.00***	-0.0760	-3.56***	-0.0894	4.36***
STOCK	-0.0250	-1.33	-0.0202	-1.08	-0.0043	-0.18	0.0158	0.68
RET (%)	-------		-0.0241	-1.12	-------		-0.0416	-1.08
VRET	-------		-5.4665	-1.46	-------		-8.9388	-1.23
Log of TA	-------		-0.0116	-2.46**	-------		-0.0244	-3.23***

RELATIVE	-------		-0.0565	-3.05***	-------		-0.0451	-1.34
Book value of total assets divided by market value of total assets	-------		0.5016	2.93***	-------		1.6820	5.09***
CRATIO	-------		-0.7260	-4.43***	-------		-1.5162	-6.17***
RUNUP	-------		-0.0632	-0.64	-------		-0.0292	-0.22
Number of observations	558		558		558		558	
R^2	0.0741		0.1219		0.0702		0.1869	
F-statistic	3.35***		3.97***		3.21***		5.92***	
Chi-square statistic testing the joint significance of the corporate governance variables	21.09***		27.94***		18.28***		30.93***	

Table 4: Acquirer effects of target shareholder control

Target cumulative abnormal return [-1, 0] around the announcement date is the dependent variable in Column 1; target takeover premium is the dependent variable in Column 2; and acquirer cumulative abnormal return [-1, 0] around the announcement date is the dependent variable in Column 3. *Indepdirect* is a binary variable for independent directors. It is equal to one if the proportion of independent directors is greater than the median percentage for our sample of acquisitions, and zero otherwise. The specifications include the stock market return of the target over the 252 trading days 60 trading days prior to the merger announcement date (*RET*); the variance of the stock market return of the target using daily data over the 252 trading days 60 trading days prior to the merger announcement (*VRET*); the target banking organization's total assets divided by the acquirer's total assets (*RELATIVE*); a binary variable equal to one if more than 50 percent of the value is paid in stock, and equal to zero otherwise (*STOCK*); the book value of total assets divided by the market value of total assets; the book capital to book total assets ratio; and the cumulative excess returns (*RUNUP*) over a 10-day period 20 days prior to the merger announcement date. Market value of total assets is computed by subtracting the book value of capital from the book value of total assets and adding the market value of capital (defined as share price times the number of common shares outstanding). Time period indicators are included in all of the empirical specifications reported below. Robust t-statistics (with White's Correction) are reported in the column next to the coefficient estimates. The t-statistics and F-statistics are starred if they are significant at the 10 (*), 5(**), and 1 (***) percent level.

	Target return (1)		Takeover premium (2)		Acquirer return (3)	
	Coefficient	T-ratio	Coefficient	T-ratio	Coefficient	T-ratio
Intercept	-0.0583	-0.33	-0.7456	-2.72***	0.0137	0.30
Indepdirect	0.0425	3.25***	0.0514	2.55**	-0.0018	-0.60
Percent of managerial share ownership greater than median and presence of at least one large independent blockholder indicator variable	-0.0359	-2.45**	-0.0594	-2.66***	0.0076	2.42**
STOCK	-0.0191	-1.02	0.0208	0.88	-0.0032	-0.73
RET(%)	-0.0297	-1.39	-0.0519	-1.34	0.0016	0.31
VRET	-5.4320	-1.48	-8.1272	-1.09	-0.0042	-0.01
Log of TA	-0.0101	-2.20**	-0.0218	-2.87***	-0.0026	-1.89*
RELATIVE	-0.0569	-3.11***	-0.0508	-1.50	0.0005	0.06
Book value of total assets divided by market value of total assets	0.4423	2.75***	1.5871	5.29***	0.0151	0.38
CRATIO	-0.6742	-4.21***	-1.4029	-5.79***	0.0230	0.49

RUNUP	-0.0880	-0.90	-0.0879	-0.66	-------	
Number of observations	558		558		558	
R^2	0.1062		0.1625		0.0328	
F-statistic	3.76***		5.50***		1.82**	