

Shareholder Voting Rights in Mergers and Acquisitions

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ABSTRACT

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ABSTRACT

This paper studies the determinants and the role of shareholder voting rights in mergers and acquisitions. Comparing deals with acquirer shareholder voting rights with those without from 1990 to 2005, we document that acquisitions with shareholder voting rights are associated with lower synergistic gains. Those offers also underperform in the long run. In addition, we show that takeovers with the requirements of shareholder approval are associated with lower probability of deal completion. There exists some evidence that acquiring-firm management structures the deals to bypass shareholder approval, but our results are robust to managerial discretion. Overall, our findings suggest that shareholder voting rights in takeovers are important in protecting shareholder interests.

1. Introduction

Acquisitions of public firms are usually associated with negative or insignificant announcement returns for acquirers, both in percentage and dollar values (see, e.g., Travlos (1987), Bradley, Desai, and Kim (1988), Fuller, Netter, and Stegemoller (2002), and Moeller, Schlingemann, and Stulz (2004)). Agency theories suggest that managers of bidding firms could overpay to pursue their personal objectives (Jensen (1986) and Roll (1986)). More recently, Grinstein and Hribar (2004) and Harford and Li (2007) present evidence that acquiring firm managers are richly rewarded through takeover activities. The issues arisen from managers' decisions to make value-destroying acquisitions, however, can be mitigated through a number of corporate governance mechanisms. In this paper, we focus on the role of shareholder voting rights in mergers and acquisitions.

Takeover transactions are one of the few circumstances in which shareholders can exercise direct oversight and control over business decisions. Under state corporate laws and current practice, shareholder voting rights are limited to the election of directors and approval of extraordinary matters such as bylaw amendments or voluntary dissolution. Shareholder voting rights in takeovers are also limited. Based on state laws and stock exchange regulations, all acquisitions must be approved by target shareholders because such investments might lead to eventual sales of target firms. Acquiring-firm shareholder approval, in contrast, can be bypassed.¹ In general, the listing rules from the three major stock exchanges in the U.S. mandate the acquiring firm to call for a special meeting and obtain shareholder approval only when newly issued shares used to finance the acquisition equal or exceed twenty percent of common shares outstanding before the issuance.²

¹ In this study, shareholder voting rights and requirements of shareholder approval are used interchangeably.

² See New York Stock Exchange *Listed Company Manual*, Section 312.03 Shareholder Approval; American Stock Exchange *Company Guide*, Section 712 Acquisitions; NASDAQ *Manual: Marketplace*

The asymmetric statutory treatments between bidding and target shareholder voting rights in acquisitions, and especially the flexibility in shareholder approval in bidding firms, present a unique opportunity to evaluate the role of shareholder voting rights in corporate governance. This research provides the first comprehensive study that addresses two important issues: (1) what determines shareholder voting rights in takeovers, and (2) whether and how the existence (or the lack) of voting rights affect the takeover process and shareholder wealth.

Shareholder voting rights give shareholders an opportunity to monitor managerial decisions and to eventually approve or disapprove such decisions. If voting rights serve as an effective corporate governance mechanism, they could mitigate manager-shareholder conflicts of interest by deterring management from engaging in value-destroying acquisitions. We refer to this as the *efficacy hypothesis*. In this case, takeovers in which acquirer shareholders are allowed to vote should be accompanied by higher shareholder wealth. In addition, if voting rights serve as an effective device to monitor managerial acquisition policy, deals requiring shareholder approval should be associated with lower probability of deal completion as poorly conceived merger proposals are unlikely to gain support from shareholders.

In contrast, two views suggest that shareholder voting rights might not be perfunctory. The first view, labeled the *managerial discretion hypothesis*, indicates that the non-universal shareholder voting rights provide management a great opportunity to determine whether shareholder voting should be avoided. The managerial flexibility in determining which acquisitions should have shareholder voting rights and which should not have could render shareholder voting less effective. For example, managers may attach voting rights to merger proposals that, ex ante, have more support from shareholders and structure less-supported deals to bypass shareholder voting. Under this situation, we should observe systematic differences in deal

Rules, Section 4350 Qualitative Listing Requirements for Nasdaq Issuers Except for Limited Partnerships. State regulations on acquirer shareholder approval usually are less stringent than those required by the three major stock exchanges. Hamermesh (2003) and Kamar (2006) provide detailed judicial discussions about the voting rules.

and firm characteristics between mergers that require shareholder approval and those that do not. Such managerial discretion inferred from various deal and firm attributes in different acquisitions could reduce the overall effectiveness of voting requirements. It is, however, important to recognize that management might not have the full control of a deal's voting requirements. If this is the case, managerial discretion might only weaken, but not eliminate, the effectiveness of shareholder voting rights.

The second view, labeled the *ineffective monitoring hypothesis*, suggest that because of shareholders' behavior, voting rights might not be effective. The efficacy of voting rights obviously relies on whether shareholders could exercise their rights effectively. The evidence that proxy proposals usually receive high approval rates (Burch, Morgan, and Wolf (2004) and Ashraf and Jayaraman (2007)) implies that this might not be the case. Parrino, Sias, and Starks (2003) and Admati and Pfleiderer (2006) further show that institutional investors tend to take the "Wall Street walk" when they are dissatisfied with management decisions.³ In addition, because of business ties with their corporate clients, some institutional investors are unlikely to vote against management proposals (Davis and Kim (2006)). Finally, since many institutional investors cross-hold both target and bidder stocks, they may vote for the merger even if acquirer shareholder interests are not well served (Matvos and Ostrovsky (2008)).

Using a sample of 2,205 offers over the 1990 to 2005 period, we first document that the requirement of acquirer-shareholder approval is associated with various firm and deal characteristics. In particular, managers in acquiring firms with higher institutional holdings are less likely to grant voting rights to their shareholders to vote on the proposed mergers. Brickley, Lease, and Smith (1988) and Bethel and Gillan (2002) show that institutional investors are more

³ Another argument supporting the minimal impact of shareholder voting is from vote trading. Christoffersen et al. (2007) document an active market for votes within the equity-loan market. Vote trading, however, serves as a double-edged sword. Management and board of directors could buy votes to support their proposals. On the other side, votes could be allocated to investors who can vote on governance issues more properly. This subject, by itself, is a very interesting issue and deserves further investigations.

likely to oppose proxy proposals if those proposals appear to reduce shareholder wealth. Chen, Harford and Li (2007) argue that institutional investors can be effective monitors in corporate acquisition decisions. Hence, ex ante, if acquirer managers perceive little support from institutional investors, they are more likely to bypass shareholder approval in the proposed mergers.

In addition, we show that acquirer shareholders are less likely to have voting rights in acquisitions with large acquirers or those in which acquirers have high market-to-book ratios. Moeller et al. (2004) document that acquisitions by large acquirers tend to be value-reducing investments for their shareholders. Rau and Vermaelen (1998) show that takeovers by high market-to-book bidders underperform in the long run. Our evidence supports the managerial discretion hypothesis. It seems that acquirer managers are aware of the potential effect of shareholder voting and might want to bypass voting when the deal only provides benefits to managers but not shareholders.

Given the evidence of managerial discretion, we next examine whether shareholder voting rights are effective in protecting shareholder wealth. We show that acquisitions without acquirer shareholder approval are associated with lower synergistic gains, both in percentage and dollar values. This relation is robust to controlling for various firm and deal characteristics as well as the documented managerial ability to restrain voting rights. This result remains strong even after we control for an array of other corporate governance measures. Furthermore, we present evidence that deals with shareholder voting rights are associated with lower probability of deal completion. Again, this result is substantial given the condition that acquirer managers could structure deals to be associated with or without shareholder voting rights.

Moreover, we document that deals without shareholder voting rights are associated with worse post-merger stock or operating performance than those with voting rights. This indicates that the requirements of shareholder voting help deter management from pursuing mergers that are not favored by shareholders once those deals are proposed. It is evident that our findings are

more consistent with the efficacy hypothesis than with the ineffective monitoring hypothesis, and suggest that shareholder voting rights are valuable in monitoring management acquisition policy. This also implies that shareholder voting rights could be even more effective if regulations on shareholder voting in mergers prevent managerial selectivity behavior.

Our study contributes to the literature on corporate governance, especially on the role of shareholder voting rights. Extant studies suggest that shareholder voting can be effective. For example, Black (1992), Gordon and Pound (1993), and Pozen (1994) present evidence that shareholder proposals could result in positive changes in firm value. Brickley et al. (1994) and Bethel and Gillan (2002) argue that voting from institutional investors is effective in constraining managerial behavior in some, but not all, situations. Balachandran, Joos, and Weber (2004) find that poorly-governed firms that adopt equity-based compensation plans without shareholder approval have worse subsequent performance than those approved by shareholders.⁴

On the other hand, many existing studies document the ineffectiveness of shareholder proposals on share returns or accounting performance. For example, Karpoff, Malatesta, and Walkling (1996) report that shareholder sponsored proposals have little impact on announcement returns or subsequent performance. Thomas and Cotter (2005) find that in the post-Enron period, boards are more supportive of shareholder sponsored proposals. The announcement returns in their sample, however, remain insignificant. Cai, Garner, and Walkling (2006) study actual shareholders' voting records on electing directors, and document that shareholders' votes only result in marginal improvement in firm performance. It is important to note that the existing papers focus mainly on shareholders' actual voting records while in this study, we focus on shareholder voting rights and the motivations and consequences underlying those rights.

Our findings also shed light on the important policy issues of shareholder voting rights. There exist considerable debates among investors, legal scholars, and policy makers such as the

⁴ A similar line of research examines the economic value of voting rights (see, e.g., Zingales (1995) and Rydqvist (1996)). Shares with more voting rights are associated with premiums. This also implies that shareholder voting is valuable.

Securities and Exchange Commission (SEC) on the scope of shareholder voting rights and their effectiveness. One side of the debates argues that shareholders should be granted more voting power to facilitate corporate governance reforms. For instance, Bebchuk (2005) suggests that shareholders should be given more voting rights to intervene in takeover decisions. The SEC recently proposed new rules that aim to enhance security holders' participation in nominating and voting for directors as well as on equity-based compensation plans.⁵ The other side, however, cautions that shareholder voting rights should be maintained as status quo or be given minor changes since the current U.S. corporate governance system has performed well in generations and arguably better than other countries (e.g., Bainbridge (2006)). The evidence from this paper supports the first view. At least in mergers and acquisitions, shareholder voting rights could discourage managerial opportunistic behavior and protect shareholders' interests.

The remainder of the paper is organized as follows. Section 2 details the sample selection procedure and describes the preliminaries of the sample. Section 3 analyzes the differences in deal and firm characteristics associated with shareholder voting rights. We present our analysis on the impact of shareholder voting rights on the probability of deal completion in Section 4. In Section 5, we examine the effect of shareholder voting rights on shareholder wealth. Section 6 provides additional tests on our hypotheses and further examines the relationship between shareholder voting and post-acquisition performance. Section 7 concludes.

2. Sampling Procedure and Descriptive Statistics

2.1 Sample of Mergers and Acquisitions

Our initial sample of acquisitions is taken from the Securities Data Company's (SDC) U.S. Mergers and Acquisitions database. We select domestic mergers and acquisitions with

⁵ See File No. S7-19-03: Proposed Rule: Security Holder Director Nominations, available at <http://www.sec.gov/rules/proposed/34-48626.htm>. See SEC Release No. 34-48108 (June 30, 2003), available at <http://www.sec.gov/rules/sro/34-48108.htm> for shareholder approval requirements on equity-based compensation plans.

announcement and resolution dates between 1990 and 2005. The resolution date is the date when the deal outcome (completed or withdrawn) is publicly announced. To be included in our initial sample, an acquisition must meet the following criteria:

(1) Both bidding and target firms are covered on CRSP for at least 100 days before deal announcement and have stock prices available to calculate announcement returns and synergies.

(2) The transaction value is greater than \$1 million. The transaction value is defined by SDC as the total value of consideration paid by the acquirer, excluding fees and expenses.

(3) The acquirer owns less than 50% of the target shares before announcement and is seeking control of the target company.

(4) Both the bidding and target companies are listed on one of the three major exchanges (NYSE, AMEX, and NASDAQ). This is to ensure that both acquiring and target firms follow the voting rules mandated by exchanges. As discussed by Kamar (2006), national exchanges usually impose more stringent rules on voting than state or federal regulations. Thus, in this study, we focus on voting rules imposed by three major stock exchanges.

After collecting available acquisitions, we further delete those classified by SDC as divestitures, restructuring, liquidation, bankruptcy, or reverse takeovers. In addition, to ensure the significance of the deal for the acquirer, we eliminate those in which the transaction value relative to the market value of the acquirer is less than 10%. This is to make certain that our comparison of corporate mergers that require shareholder voting with those that do not is meaningful and to minimize the potential impact of the relative size between the bidder and the target firm in our analysis.

2.2 Acquisitions With and Without Shareholder Voting

As discussed in the introduction, stock exchange rules require a listed acquirer to obtain shareholder approval whenever the acquirer issues new shares exceeding 20% of outstanding

shares to finance the takeover.⁶ To determine whether our sample acquisitions require acquirer shareholders' votes, we search Forms 8-K and S-4 as well as news announcements from 1990 to 2005. Specifically, for each deal, our search algorithm starts with Form 8-K (the "Merger Agreement") and S-4 (the "Registration Statement"). If at least one of the forms clearly states that the merger is subject to the approval of the holders of target AND acquirer common stock, we classify the merger as a "vote" deal. If the forms repeatedly state that the deal requires the approval of target common stockholders without mentioning the approval of acquirer stockholders, we also classify the merger as a "no vote" deal. This is because 8-K and S-4 usually do not explicitly mention that acquirer shareholders do not have voting rights if that indeed is the case. Thus, it is difficult to find definitive evidence from those two forms that acquirer shareholders cannot vote on the merger.

Our next step is to perform a comprehensive search on public announcements via Lexus/Nexus for deals without 8-K or S-4. If the press release clearly states the voting requirement of the merger, we classify it as a "vote" or "no vote" deal; otherwise, we resort to our last step by estimating the percentage of new shares issued by the acquiring firm based on the available information such as form of payment, transaction value, and other deal characteristics. The percentage of newly issued shares is calculated as deal transaction value times the portion of transaction value financed with stock divided by the acquirer's pre-announcement share price. We classify the merger as a "vote" or "no vote" deal depending on whether the estimated percentage exceeds 20%. If we cannot find any information about the merger, we remove it from our sample.

⁶ Some exceptions exist. For example, shareholder approval can be bypassed in "short-form mergers" in which shares of acquiring firms are concentrated in a small number of insiders such as management or founding families. Typically, acquiring firms in those deals have small market capitalizations with highly concentrated insider ownership. Another special type of takeovers is called "triangular mergers" in which the target firm is acquired by a newly-created subsidiary of the bidder. They usually are not considered as regular takeovers. We exclude those deals in our sample.

Further, since Edgar electronic filings were unavailable before September 1995, we have to rely entirely on our search to find voting status on takeovers before 1995. Although we are able to find takeover announcements for most deals before 1995, our findings are unchanged when early observations are discarded entirely from the sample. Deals with no 8-K, S-4, or press release tend to be small transactions. It is important to stress that for acquisitions that were withdrawn at an early stage of the takeover process before their 8-K or S-4 were filed, we have to classify those deals by reading press release or estimating the percentage of new shares issued. This is to make certain that our sample is not biased toward friendly or completed deals.⁷ Through detailed searches and classifications, our final sample consists of 2,205 offers.

Table 1 displays the distribution of the sample by year and by form of payment. The total number of deals ranges from 53 in 1990 to 261 in 1997, increasing steadily until 1997 and then declining to 82 in 2005. The low number in 2005 is due to the fact that we require acquisitions to be resolved by the end of 2005. Consistent with existing studies, stock offers account for more than half of the sample while cash and mixed offers comprise 26% and 18%, respectively. Mixed offers are those in which the acquirers use both cash and stock as the consideration of payment. As noted, cash deals do not require acquirer shareholders' votes. A stock or mixed offer needs to obtain acquirer shareholder approval if the number of new shares issued by the bidding firm equals or exceeds twenty percent of existing shares outstanding. During the sample period, slightly more than half of the bidding firms (53%) require acquirer shareholders' approval: 949 stock deals and 224 mixed deals. It does not appear that the proportion of deals that require acquirer shareholders' votes varies significantly over time.

⁷ To be specific, forms 8-K and S-4 are sent out to stockholders to solicit their opinions after management and boards of directors on both sides reach a merger agreement. Thus, those forms are unavailable for many hostile or terminated deals before an agreement is reached.

3. Determinants of Shareholder Voting Rights

3.1 Relationship between Acquisition Characteristics and Shareholder Voting Rights

Table 2 contains some of the salient characteristics of our sample and shows how they differ across deals with or without shareholder voting. Panel A presents the mean and median values of deal characteristics while Panels B and C report values of acquiring and target firms' characteristics, respectively.

The first column of Panel A reveals the summary statistics for all of the deals in our sample. As shown in the column, most offers are friendly (92%) and completed successfully (83%). Most bidders do not own target shares before deal announcement. The median toehold is zero while the average is a low 0.64%. Further, takeovers in which either the bidder or the target is in a regulated industry account for 35% of our sample while 30% of the takeovers are diversified.⁸

We also calculate the relative size, defined as the transaction value divided by the average market value of equity of the acquirer over the (-30, -11) interval. The average transaction value is 65% of the market value of the bidding firm and the median is a lower 40%. The high relative size is partly driven by our sampling procedure in which we delete offers with relative size below 10%. Other deal characteristics reported here generally are typical of the literature during the sample period of 1990 to 2005.

The next five columns of Panel A display deal attributes categorized by form of payment and shareholder voting rights. Although cash offers do not require acquirer shareholder approval, it is necessary to separate them from other no-vote deals. As shown in numerous studies, cash offers generally are associated with different characteristics (see, e.g., Travlos (1987) and Fuller et al. (2002)). Also note that although there is no voting difference in cash deals, they remain a choice variable in managerial decision process. Acquirer management can opt for cash as the

⁸ To verify that our findings are not driven by regulated or financial firms, we perform the analysis using samples with and without those firms. Overall, both samples yield similar results. In addition, when we include accounting variables in our regressions, we exclude regulated and financial firms from our sample.

form of payment such that acquirer shareholders do not vote for the deal. Throughout this paper, we present evidence using samples with and without cash acquisitions. Overall, our results are robust using both samples.

Consistent with other studies, several characteristics in cash deals differ from those in the full sample. Cash deals are smaller even though the relative size is similar to that of the full sample. A significant percentage (41%) of cash acquisitions are tender offers, compared with 13% of the full sample. In addition, relative to the full sample, a greater portion of cash deals is diversified, and they are more likely to be contested with lower probability of success. Hostile takeovers also tend to use cash.

Panel A further displays several interesting new results. For both stock and mixed deals, no-vote offers tend to be smaller and have lower relative size. The difference in transaction value between no-vote and voted mixed offers, however, is insignificant. Note that this relation might be somewhat mechanical because exchange regulation on shareholder voting is based on the relative size of newly issued shares to existing shares outstanding.

What is surprising is that there is no systematic difference in durations between no-vote and voted deals. It is believed that acquiring firm managers avoid shareholder voting to expedite the takeover process. The evidence here, however, suggests that expediting the takeover process by designing deal structure to skip shareholder approval might not be the first order motivation for acquirer managers. One possibility is that all acquisitions still require target shareholder approval after all. In fact, during our data-collection process, we find that for deals that require both bidder and target shareholder approval, the two separate shareholder meetings tend to be held around the same dates.

In addition, since takeovers with multiple bidders for the same target or hostile deals usually have lower abnormal returns on bidder stock (Schwert (2000)), one might expect those offers are less likely to seek shareholder approval. Our results, however, provide little support for this argument. Instead, competed or hostile deals are more likely to have shareholder voting

requirements. This also implies that other factors might be more important in determining shareholder voting than deal competition or target management attitude.

We do find that acquirer shareholder voting exerts influence on several key deal characteristics. For example, offers that require approval are associated with lower probability of success than those without shareholder approval. No-vote stock deals have a 91% success rate, compared with 83% for deals requiring votes. The corresponding figures for mixed offers are 89% (no-vote) and 82% (vote), respectively. This is interesting given the existing evidence that shareholders usually do not oppose proxy or merger proposals (Karpoff et al. (1996) and Burch et al. (2004)). Finally, diversified mixed deals are less likely to seek acquirer shareholder approval. About 31% of no-vote offers are diversified deals while only 23% of voted offers are diversified.

3.2 Relationship between Firm Characteristics and Shareholder Voting Rights

Panels B and C of Table 2 report bidding and target firm characteristics, respectively. The firm characteristics again are sorted on method of payment and shareholder voting rights. To mitigate potential causality issues, we use lagged variables in our analysis. In the discussion below, we focus on the differences in acquiring firm (target firm) characteristics between deals that require shareholder voting and those that do not.

As shown in Panel B, deals with large acquirers are less likely to grant voting rights to shareholders than small acquirers. This result holds for both measures of firm size: market value and book value of total assets. If we keep the target firm size constant, the relative size of the transaction value to acquirer firm size is clearly lower for larger acquirers. This could partially explain the disparities in shareholder voting status between deals with large acquirers and small acquirers. Another possibility is from Moeller et al. (2004), showing that the average announcement return for large acquirers is about two percent lower than the return for small acquirers. Thus, if a lower announcement return signals that the acquisition is value-decreasing,

managers in large acquirers should have more incentives to avoid shareholder approval by adjusting the deal structure.

Another finding consistent with the above argument is that no-vote deals have higher market-to-book ratios than those requiring votes. Rau and Vermaelen (1998) show that acquirers with high market-to-book ratios have worse performance in the three years after the acquisition than those with low market-to-book ratios. This suggests that companies with high market-to-book ratios tend to make relatively poor acquisition decisions. Our evidence here indicates that the high market-to-book acquirers are also more likely to bypass acquirer shareholder approval. In a later section, we further investigate whether post-acquisition performance can be explained by management decisions on shareholder voting rights.

In addition, it is believed that acquirers repurchase their common shares and store them as treasury shares. The accumulated treasury shares can later be used to finance takeovers. One of the benefits of such strategy is that shareholder approval can be bypassed in those acquisitions if new share issuance falls below the twenty percent threshold. We find some evidence in mixed deals. No-vote mixed deals are associated with more treasury shares than those requiring votes.

In Table 2, we also examine whether acquiring firm's past performance is related to the requirement of shareholder approval. The result in Panel B indicates that it is not the case. Consistent with existing literature, firms' past performance is a determinant of method of payment. That is, acquirers are more likely to use their own stock to finance the acquisitions when the stock price experienced run-up in the past. Their past stock performance, however, is not correlated with firms' decisions on shareholder approval.

The last firm characteristic we study is institutional ownership. Institutional share holdings are obtained from SEC 13F filings recorded by Spectrum. We compute the percentage of institutional ownership as aggregate holdings from different types of institutional investors relative to total shares outstanding. Shleifer and Vishny (1986) and Gillan and Starks (2000) argue that institutional investors are better informed than individual investors and can more

effectively monitor management from making value-destroying acquisitions. Gaspar et al. (2005) and Chen et al. (2007) further show that the monitoring ability of institutional investors depends on their investment horizons. Thus, on the bidder side, if institutional investors are effective in monitoring, agency-cost arguments imply that managers in acquiring firms with high institutional ownership are more likely to avoid shareholder voting in value-decreasing acquisitions. On the target side, the relation is unclear. Institutional investors could either sell their shares or oppose merger proposals. Kahn and Winton (1998) and Maug (1998) model trade-offs faced by institutional investors between selling their shares and intervening management poor decisions. In addition, although institutional investors at target firms might specialize in monitoring, Hsieh and Walkling (2005) present evidence that they tend to sell their shares to merger arbitrageurs after the deal is publicly announced. This suggests that institutional holdings in the target firms might not be an important determinant of acquirer shareholder voting status.

Empirically, Gordon and Pound (1993) find that proxy proposals receive more votes when ownership is more concentrated among institutional investors. Brickley et al. (1988) and Bethel and Gillan (2002) show that institutional investors are more likely to oppose proxy proposals if those proposals appear to reduce shareholder wealth. In contrast, Parrino et al. (2003) document that certain types of institutional investors sell their shares prior to forced CEO turnover. The results from Christoffersen et al. (2007) even suggest that the votes of institutional investors can be traded within the equity-loan market. Thus, it remains unclear whether institutional investors exert influence over management decisions on shareholder voting.

In Panels B and C, we show that institutional holdings are significantly correlated with shareholder voting rights. In particular, no-vote offers are associated with higher institutional ownership than voted deals in the acquiring firms. The relationship reverses in the target firms. This indicates that acquirer managers are more likely to bypass shareholder voting when institutional ownership in the acquiring firm is high. Contrarily, deals with higher institutional

ownership in target firms are more likely to require acquiring firms' shareholders to vote on the acquisitions.

3.3 Determinants of Acquirer Shareholder Voting Rights

We have presented key variables related to shareholder voting rights in a univariate setting in Table 2. In this section, we take into account simultaneity of those variables and estimate logistic regressions of shareholder voting on those variables. In all models, the dependent variable equals one if the deal requires acquirer shareholder approval and zero otherwise. In Table 3, we estimate our regressions using two different sets of observations: models 1 to 3 use all acquisitions while models 4 to 6 use stock and mixed deals only. Within each set, we first include deal characteristics as explanatory variables. We then add acquiring firms' characteristics and institutional ownership in our models. Including target firms' attributes adds marginal explanatory power of our models and does not materially change our results; thus, for brevity, we exclude those regressions from the table.⁹ Because our comparison of deals with and without shareholder voting requirements is mainly drawn from the sample of stock and mixed deals, our discussion on the determinants of shareholder voting also focuses on this sample. It is worth noting that the main results from the full sample are similar.

Consistent with the univariate analysis, tender offers and deals with larger acquirers are associated with lower likelihood of requiring shareholder approval. Note that in this table, we use the logarithm of book value of assets as the proxy for acquiring firm size. The inferences from our models are not altered by using one of the two alternative proxies for firm size: market value of assets and sales. Further, several bidding-firm characteristics remain important in explaining shareholder voting even after controlling for deal attributes. For example, acquisitions in which acquirers have more cash holdings or higher target institutional ownership are more likely to have shareholder voting rights. In contrast, deals in which acquirers have higher market-to-book

⁹ Regression results with target firms' attributes included are available upon request from authors.

ratios, higher acquirer institutional holdings, or poorer past stock-price performance are less likely to seek shareholder approval. The result from the market-to-book ratio suggests that acquisitions that tend to experience poor long-term performance are less likely to have shareholder voting rights. The evidence also indicates that institutional ownership is an important determinant of shareholder voting rights. All coefficients are statistically significant at least at the five percent level. They are also economically significant. For instance, in specification 3, if we increase the market-to-book ratio by one standard deviation ($\sigma=2.15$), the probability of shareholder approval decreases by 8.97%. The magnitude for institutional ownership is even more significant. If we increase acquirer institutional holdings by one standard deviation ($\sigma=0.25$), the probability of shareholder approval decreases by 36.4%. On the other hand, one standard deviation increase of target institutional holdings ($\sigma=0.25$) corresponds to a 26.21% decrease in probability of shareholder approval. Overall, the findings here are consistent with the managerial discretion hypothesis, suggesting that managers are aware of the impact of shareholder voting rights and tend to grant or bypass those rights depending on the quality of the acquisitions.

4. Shareholder Voting Rights and Deal Completion

Existing studies have documented that shareholders usually do not vote against management proposals (see e.g., Gordon and Pound (1993), Bethel and Gillan (2002), and Davis and Kim (2006)). Burch et al. (2004) also present evidence that ratios of shareholder approval of merger proposals are generally high. The collected evidence suggests that acquirer shareholders might be unlikely to affect deal outcome through their votes *if* shareholders do vote on the offer. Thus, a direct implication from the above argument seems to be that shareholder voting rights might not provide an effective monitoring and control mechanism in the merger and acquisition process.

However, the evidence on high shareholder approval rates is not necessarily inconsistent with the efficacy hypothesis. One possibility is that deals that are subject to shareholder scrutiny may fail before reaching the stage of actual shareholder voting. If the existence of voting requirements and the threat of shareholder objection are the main reasons behind such deal failures, then shareholder voting rights evidently play an important role in the takeover process even though shareholders mostly approve the proposals they eventually have a chance to vote on. In addition, acquirer managers' discretion in determining whether proposed acquisitions need shareholder approval could exert impact on both the success of deals going up for shareholder voting and the final voting outcome.

In this section, we examine, in a multivariate framework, whether the presence of shareholder approval requirements is associated with the probability of completing a takeover transaction. Model 1 includes all sample deals while model 2 only uses stock and mixed deals only. We also include year fixed effects to control for possible time trends. As shown in Table 4, after controlling for deal characteristics, we find that shareholder voting rights remain negatively correlated with probability of deal success. The coefficients of voting rights are significant in both the full sample and the subsample of stock and mixed deals only. The relation is also economically meaningful. The coefficient in model 1 suggests that the probability of deal completion decreases by 24.06% for deals with shareholder voting rights. The coefficient in model 2 also indicates a similar probability. Finally, in an unreported analysis, we include additional firm attributes and return-related variables in our specifications. The coefficients of shareholder voting rights remain significant in explaining deal outcomes.

In our sample, unsuccessful deals are those that are rejected by target firms, withdrawn by the bidding firms, or mutually agreed upon termination of merger negotiations. Most of the failed deals are terminated before going through shareholder approval. If the companies do file forms 8-K or S-4, only a small percentage of merger proposals are voted against by target or acquirer shareholders. In addition, one might argue that our failed mergers are mainly driven by

terminations by antitrust authorities. By searching news articles on Lexus/Nexus for reasons why acquiring or target firms call off the merger proposals, we conclude that in our sample, regulations play a trivial role in terminating mergers. Our search results indicate that on the target side, the most commonly cited reason for rejecting a deal is “inadequate offer price”. Interestingly, on the bidder side, the frequently cited reason for canceling a deal is “unfavorable shareholder reaction”.

The findings in this section support the efficacy hypothesis, indicating that shareholder voting rights serve as an effective screening and control mechanism during the acquisition process. We should also note that our earlier results demonstrate that managers are more likely to submit proposals that ex ante, receive more support from shareholders and less likely to attach voting rights to deals that tend to receive unfavorable opinions from shareholders. Thus, it is very possible that managerial discretion in permitting shareholder voting rights in acquisitions and the probability of deal completion are jointly determined by several common deal characteristics. We provide further discussion of, and additional tests for, such an endogenous relation in later sections of this paper. Overall, our findings presented here are robust to those additional investigations.

To summarize, one popular view holds that shareholder voting rights are not effective because proxy proposals usually receive high approval rates. An alternative view, however, suggests the effectiveness of shareholder voting rights. For example, Burch et al. (2004) study actual voting records on 209 mergers. They argue that merger votes could serve as an effective check on managerial acquisition policy despite high average approval rates. This is because the approval rates vary significantly and the possibility of receiving low approval rates provides credible signals on managerial decisions. Our results indicate that even managers could associate deals with or without shareholder approval, shareholder voting rights remain effective in monitoring corporate takeover policy.

5. The Effect of Shareholder Voting Rights on Shareholder Wealth

We have shown in the univariate analysis that acquisitions with and without acquirer shareholder approval differ systematically in firm and deal attributes. Further, the observed impact of acquirer shareholder approval on deal outcomes is consistent with two non-mutually exclusive explanations. First, if acquirer shareholder voting is perfunctory in acquisitions, shareholders in deals requiring votes can evaluate and vote on the proposed mergers. Thus, the active monitoring by shareholders, combined with their voting rights, can reduce the probability of an ill-conceived merger being proposed and advanced. For deals without shareholder voting rights, managers could over-estimate synergy gains or overpay for target firms. Therefore, a negative relation between shareholder voting rights and deal synergistic gains will be in line with the efficacy hypothesis.

Second and again, because of managerial discretion, management can effectively adopt certain deal structures to avoid shareholder approval if they believe the merger proposals are unlikely to gain support from shareholders. Obviously, it is more likely to happen in value-decreasing deals. Also related, low-quality bidders may be more willing to pursue deals that do not meet the threshold of shareholder approval to begin with and can easily invalidate shareholder voting requirements. Such managerial behavior, if present, is also consistent with the observed evidence. The results in previous sections have already shown that acquirers with higher market-to-book ratios or higher institutional holdings are less likely to grant voting rights to their shareholders. The latter relation is consistent with the notion that acquirer managers avoid monitoring from institutional investors.

In this section, we examine the effect of voting requirements on shareholder wealth while controlling for various firm and deal characteristics also associated with shareholder voting rights. An important specification in our models is that we explicitly take into account managerial decisions on voting requirements in acquisitions. The empirical analysis in this

section provides insights on the channels through which shareholder voting rights affect the takeover process.

5.1 A Univariate Analysis of Shareholder Voting Rights and Value Impact of Merger Announcements

This section studies whether shareholder voting rights are associated with significant changes in shareholder wealth. We estimate market reactions to the merger announcements in both bidding and target firm stocks and the joint impact on shareholder wealth for deals with and without shareholder voting. If shareholder voting rights matter for the choice of deal structure, market reactions to vote vs. no-vote deals could differ systematically. More importantly, if managers intentionally avoid shareholder votes, then the decision on shareholder approval may signal the quality of the proposed merger. Value implications of the mergers with and without shareholder approval, as measured by the market reactions to the offers, should exhibit different patterns. Thus, studying the value impact of merger announcements based on shareholder voting can provide direct evidence on whether and how shareholder voting rights matter in takeover transactions.

We evaluate sample acquisitions by announcement returns, bid premiums, and synergistic gains. A traditional methodology of evaluating the economic significance of wealth changes in acquisitions is to estimate abnormal announcement returns with a standard market model. We measure bidder and target abnormal returns over the (-2, +2) interval. The CRSP equally-weighted returns are used as the market returns and the parameters for the market model are estimated over the (-210, -11) interval.¹⁰ The top two blocks in Table 5 reveal abnormal returns in the full sample and in five sub-samples. We present results categorized by form of payment and acquirer shareholder voting requirements. Consistent with the literature, acquirer returns are

¹⁰ Bidder and target abnormal returns calculated using the CRSP value-weighted returns as the market returns yield similar results.

slightly negative while target returns are positive and large. Market reactions to cash deals differ systematically from stock and mixed deals. On the bidder side, as expected, cash deals have the highest mean and median acquirer announcement returns. They are 0.71% and 0.46%, respectively. We further calculate the proportion of deals that experience positive announcement returns. The figures are reported in parentheses. More than half of cash offers have positive returns, also the highest among three different forms of payment. Existing studies also show that the announcement returns of cash offers are higher than other offers. While cash deals do not require bidder firm shareholder approval, the evidence further suggests that, in comparing deals with and without shareholder voting requirements, we need to control for the unique characteristics of cash offers.

For stock and mixed offers, bidder and target announcement returns exhibit differences across deals based on shareholder voting requirements. However, the evidence does not provide a clear picture of whether the requirement of shareholder approval affects acquirer or target returns. For instance, shareholder voting is associated with lower bidder returns for stock offers requiring votes. The mean (median) returns are -2.97% (-2.22%) for no-vote stock deals and -4.62% (-3.95%) for deals requiring votes. Both differences are significant. As we show earlier, stock deals that require shareholder approval are much larger in transaction value and the size of such deal relative to bidding firm's market value is also much larger. The more negative announcement return for bidder stocks could simply reflect the impact of transaction value or relative size. The results for mixed deals are similar but are not significant.

On the target side, cash offers again have both the highest abnormal returns (21.25% for the mean and 19% for the median) and the highest percentage of deals with positive returns (91.82%). No-vote stock offers are associated with significantly higher mean and median target returns than those requiring votes. The mean and median differences are 5.15% and 5.28%, respectively. To some extent, they can be interpreted as an average or median wealth increase to target stockholders if acquisitions have no acquirer shareholder approval. No-vote mixed deals

also have higher target returns than those requiring votes. But the differences (1.96% for the mean and 2.02% for the median) are insignificant.

We further examine whether the differences in target returns are driven by the differences in bid premiums. The middle section of Table 5 reports mean and median bid premiums for the entire sample and by form of payment and voting status. Premium is defined as $(\text{offer price} - P^T)/P^T$ where P^T is target firm's average stock price over the (-30, -11) interval. The mean takeover premium is 39.92% for the full sample and the median is 33.72%. For stock offers, bidding firms tend to offer higher premiums to target shareholders if the deals do not need acquirer shareholder approval. Both mean and median values are higher for no-vote than voted deals. The premium in mixed deals shows a different pattern. In no-vote mixed deals, bidder firms offer premiums significantly lower than the deals that require vote. The average premium is 35.77% for no-vote offers and 43.08% for voted offers. The corresponding median premiums are 32.45% and 34.06%, respectively.

The above univariate results from bidder and target returns as well as bid premiums do not show a clear relation between shareholder voting rights and wealth effects. One possibility is that market reaction to both bidder and target firm returns are related to both firm and deal characteristics and probability of deal completion. More importantly, these three variables only provide partial assessments about the offers either from the bidder or the target side. Furthermore, in a takeover transaction that is accompanied by a change in control, the acquirer's governance implied in voting rights will apply to the combined company. As indicated by Wang and Xie (2008), an estimated synergistic gain in a merger or acquisition is a better assessment of the effect of corporate governance in the market for corporate control. Thus, to fully assess the economic significance of wealth changes in acquisitions, we next examine the impact of shareholder voting rights on the combined value of the acquiring and target firms by estimating synergistic gains.

Following Bradley et al. (1988), we compute the percentage synergy gain (%CARC) as abnormal announcement returns over the five-day event window for a value-weighted portfolio of the acquirer and target returns. The weights are based on the market value of equity ten days prior to the announcement. The dollar value synergy gain (\$CARC) is calculated as the percentage synergy gain times the sum of the market value of equity for both the acquiring and acquired firms, adjusted for the percentage of target shares held by the acquirer prior to the announcement.

The lower two blocks in Table 5 reveal the results for the percentage and dollar value synergy gains. The average percentage synergy gain is a low 1.24% while the dollar value is -\$41.28 million. Their corresponding median figures are 0.99% and \$3.48 million, respectively. Cash offers are associated with higher synergy gains, in both percentage and dollar terms, than stock and mixed deals. In addition, 75% of cash deals experience positive synergy gains. For stock and mixed deals, it is evident that deal synergies are related to shareholders' voting requirements: Deals without shareholder approval experience lower synergy gains than those requiring votes. On average, stock offers with no vote have 1.19% loss while those requiring approval only experience 0.49% loss. The median figures are -0.61% and +0.11%, respectively. Results from mixed deals are even more dramatic. The average and median differences are 3% and 2.24%, respectively. Both differences are significant at the one percent level.

Further, the median dollar value synergies are higher for acquisitions with votes than those without. This is true for both stock and mixed offers. The median difference between no-vote and voted groups is \$3.81 million for stock offers and \$3.28 million for mixed offers. Although the relation is reversed for the average dollar value synergies, it is mainly biased by large-loss deals. In addition, the percentage of firms with positive synergies is also lower in the group of offers without vote. For example, only 46% of no-vote stock offers have positive synergy gains while the number is 50% for voted stock offers. The corresponding figures for mixed deals are 54% and 66%, respectively. In sum, the evidence from synergy gains strongly

supports the argument that acquirer shareholder approval is important in protecting shareholder wealth.¹¹

5.2 A Regression Analysis of Shareholder Voting Rights and Changes in Shareholder Wealth

In the univariate analysis, we show that deals without shareholder voting rights have lower synergistic gains. We now examine, in a multivariate framework, the shareholder welfare consequences associated with voting rights. The efficacy hypothesis and the ineffective monitoring hypothesis offer disparate conclusions about the shareholder wealth effect in deals with and without voting rights. Particularly, the efficacy hypothesis indicates that if voting rights serve as an effective device to monitor managerial acquisition policy, deals with voting rights should be accompanied by higher shareholder wealth. The ineffective monitoring hypothesis, on the contrary, does not suggest such significant relationship because of shareholders' behavior.

The impact of shareholder voting rights on shareholder wealth gains is estimated in percentage (%CARC) and in dollars (\$CARC). Furthermore, as discussed in Table 5, several takeovers experienced large dollar synergy gains or losses during our sample period such that the reported mean values are skewed. To circumvent this issue, we normalize \$CARC by transaction value (TV), defined as the total market value of consideration excluding fees and expenses.¹² Furthermore, in the analysis here, we control for firm and deal characteristics that also are correlated with the requirements of shareholder approval. This is to ensure that the results capture the impact of shareholder voting rights on shareholder wealth that is unexplained by deal and firm characteristics.

¹¹ As shown in Table 2, about 35% of our sample deals are in regulated industries. Again, we need to be cautious about whether regulated takeovers affect our results. To perform a robustness check, we eliminate all regulated deals and re-calculate our key variables. The results, available upon request from authors, are qualitatively similar.

¹² We also use another alternative approach of employing a dummy variable equal to one if \$CARC is greater than zero and zero otherwise, and then estimating the model with a logistic regression. The results from this approach are similar to those reported here.

Table 6 presents findings evaluating the effect of shareholder voting rights on synergy gains. Models 1 to 4 use all sample acquisitions while models 5 to 8 use stock and mixed deals only. We also include year fixed effects to control for possible time trends and clustering in our sample deals. The odd-numbered models report results from ordinary least squares (OLS) regressions and even-numbered models report results from the two-stage least squares (discussed below). It is evident that the combined value of the acquiring and acquired firms is strongly associated with shareholder voting rights. The coefficients of acquirer voting rights are statistically significant at least at the five percent level. They are also economically significant. For instance, model 1 indicates that shareholder voting is related to the increase in deal synergy by 1.1%. This figure is quite substantial given that the mean percentage gain is only 1.24% for our sample (Table 5). The figure remains almost the same when we include only stock and mixed deals in our sample (model 5). The results are even more significant for the dollar synergy. Specifications 3 and 7 show that voting rights are associated with an increase of 6.3% and 5.6%, respectively, in dollar synergy relative to the market value of consideration. It is apparent that acquisitions with the requirements of shareholder approval are more likely to experience positive synergies than those without requirements. This finding is consistent with the predictions of the efficacy hypothesis. In sum, agency theories of free cash flow and managerial entrenchment predict that takeovers could destroy value such that they become negative net present value investments for diversified long-term investors. The results presented here suggest that mandating shareholder voting rights in takeover transactions could restrain acquirer managers from making value-decreasing acquisitions.

5.3 Endogenous Relationship between Shareholder Voting Rights and Changes in Shareholder Wealth

As in many corporate governance studies, endogeneity issues could prevent us from concluding the value impact of shareholder voting rights in mergers and acquisitions. Although

many papers study possible remedies for endogeneity-driven biases, those biases remain admittedly difficult to correct for.¹³ One form of the endogeneity issues is related to omitted variables. As noted previously, because shareholder voting requirements are affected by various firm and deal characteristics, the impact of voting rights on shareholder wealth and deal outcome documented earlier could be driven by such characteristics rather than voting requirements. Despite our extensive use of deal and firm attributes as control variables in the multivariate analysis, it remains unclear that our models are well-specified. One possible factor is the acquiring firm size. As shown in Moeller et al. (2004) and Wang and Xie (2008) and others, deal synergistic gains might be affected by acquiring firm size, which in our context, could also affect the requirements of shareholder approval. Although we have included various forms of firm size in our models, we further investigate this possibility in a later section. Another possible omitted factor is different types of governance measures. It is likely that poorly governed acquirers tend to bypass shareholder voting rights and at the same time those acquirers tend to initiate value-decreasing acquisitions. We also address this issue in more details in the robustness section.

The second form of endogeneity issues is reverse causality. In our case, it refers to the possibility that managers are more likely to grant shareholder voting rights to merger proposals that ex ante, (1) have lower probability of completion or (2) receive more support from shareholders. Thus, to some extent, managerial discretion in permitting shareholder voting rights in acquisitions is jointly determined with the probability of deal completion or deal synergistic gains. The first scenario regarding the probability of deal completion seems unlikely because there is little reason to believe that managers would systematically grant voting rights to deals that are less likely to consummate.

We provide two methods to address the second scenario regarding shareholder support. First, we control for additional corporate governance variables in our regressions. Extant studies

¹³ For related articles, see Coles, Lemmon, and Meschke (2005), Larcker and Rusticus (2005), and Linck, Wintoki, and Netter (2008).

suggest that low-quality acquisitions are initiated by firms with poor governance measures. Thus, if shareholder voting rights are simply manifestation of, or have lower explanatory power than, other governance measures, we should observe insignificant relation between shareholder voting rights and synergistic gains after we include those governance measures in our models. We also defer the presentation of the results from this methodology in a later section. Second, we resort to an econometric approach and estimate a system of simultaneous equations following the methodology outlined in Maddala (1983) and Greene (2003). Shareholder voting rights are estimated jointly with synergistic gains. The system is estimated using two-stage least squares (TSLS) with the use of appropriate instruments. Our main conclusions are unaltered if we estimate our models using three-stage least squares.¹⁴ In this approach, we first estimate a model to predict “expected” (or “fitted”) probability that managers grant shareholder voting rights to an acquisition. This model is similar to those reported in Table 3. The fitted probability is then included in the second stage regressions as a regressor along with other control variables. The results from this methodology are reported in even-numbered models in Table 6. Again, the coefficient results show that the relationship between synergistic gains and shareholder voting rights remains significant. Overall, the evidence from this approach further supports the predictions of the efficacy hypothesis.

6. Robustness Checks and Extensions on the Effect of Shareholder Voting Rights

We have already noted several robustness checks in the preceding analyses. To further test the efficacy hypothesis, we provide additional checks with respect to firm size and estimated percentage of acquirer new shares issued. Moreover, we conduct a detailed analysis that examines the interaction between shareholder voting rights and other governance measures. Finally, we present an analysis of long-term performance in the acquiring firms.

¹⁴ Although we have used the instrumental-variable approach to mitigate the potential causal effects, we note that any econometric remedies are subject to criticisms. Thus, we are careful not to assert strong causality.

6.1. Firm Size and the Effect of Shareholder Voting Rights

Moeller et al. (2004) show that acquisitions by large firms earn lower abnormal returns than those by small firms. Here, we examine whether our documented return differences between voted and no-vote deals are driven by firm size. Following Moeller et al., we define large acquirers as those with a market capitalization equal to or greater than those of the 25th percentile of NYSE firms in the year in which the merger is announced. Panels A and B of Table 7 reveal synergy gains and deal success grouped by small and large firms, respectively. As indicated in both panels, the previously documented relation between acquirer voting status and deal synergies is independent from acquiring firm size. Deals requiring acquirer shareholder approval earn higher synergies than those without approval in both mean and median figures. One exception is the average dollar synergy gains in large firms. Again, as in section 3, those average figures are mainly driven by large-loss acquisitions. Further, we document a negative correlation between the probability of deal success and shareholder voting status. The difference between no-vote and voted deals, however, is significant only for large firms. Overall, the evidence suggests that shareholder voting requirements in acquisitions have a strong impact on shareholder wealth. This relation is independent from the market capitalizations of acquiring firms.

6.2. Estimated Percentage of New Share Issued and the Effect of Shareholder Voting Rights

In the previous sections, we rely mostly on a dummy variable for shareholder voting rights in the analyses. By the exchange listing rules, acquiring firms are required to obtain shareholder approval when newly issued shares used to finance the acquisition equal or exceed twenty percent of common shares outstanding before the issuance. Thus, by using the dummy variable approach, we treat with the same importance for all offers with more than 20% of new shares. The percentage of new shares issued to finance an acquisition could have important implications for shareholder voting requirements. In particular, if acquiring firm managers

modify deal structure to avoid shareholder voting, they could structure deals such that the new issuance falls below the twenty percent threshold. If this is the case, then deal synergies and success rates could vary with different percentiles of new shares issued by acquiring firms. Additionally, the pattern would be more significant for mixed offers.

To investigate the aforementioned issue, we first estimate the percentage of the number of new shares issued relative to existing shares outstanding. We then calculate synergy gains and deal success rates based on form of payment and five different ranges of new shares issued: <0.2 , $0.2-0.4$, $0.4-0.6$, $0.6-0.8$, and >0.8 . Table 8 shows that the number of stock deals is the highest in the 20-40% range: 541 stock offers in that group. Interestingly, when firms decide to use both cash and stock to finance acquisitions, they tend to issue less than 20% of new shares relative to existing shares outstanding. 168 mixed deals issue less than 20% of new shares while there are only combined 219 deals in the other four groups. More importantly, the group in which firms issue less than 20% of new shares is associated with lower synergistic gains and higher probability of deal completion. Other groups in which acquiring shareholders have voting rights usually earn higher synergy gains and have lower deal success. It is evident especially when deal synergy is measured in percentage. The differences between the group of less than 20% new shares and those of higher than 20% are also more significant in mixed offers. Overall, the results show systematic differences in shareholder wealth between acquisitions with and without voting rights.

6.3 Robustness Tests of Shareholder Voting Rights, Deal Success, and Deal Synergistic Gains

In this section, we provide additional analysis on the effect of shareholder voting rights on the probability of deal completion and synergistic gains. In particular, we examine the interaction between shareholder voting rights and several other governance variables. More importantly, we address the question of whether our main results can be explained by those governance measures.

The first set of governance variables contains ownership structure. We have already included institutional holdings in our previous analyses. Here, we take into consideration insider ownership in both acquiring and acquired firms. Insider ownership data are taken from Compact Disclosure. Evidence from insider ownership could provide information on the observed shareholder voting rights and the motivations behind such choice. Agency theories suggest that higher insider ownership helps to mitigate the conflicts of interest between management and outside investors. Higher insider ownership also grants insiders more voting rights that in turn could affect corporate policies (Stulz (1988)). Given these two arguments, we should expect a positive relation between insider ownership of acquiring firms and the likelihood of shareholder voting rights. Conversely, we should expect a negative relation on the target side.

The second set of governance variables includes G-index and E-index. Both indices serve as proxies for the quality of corporate governance. The G-index, constructed by Gompers, Ishii, and Metrick (2003), takes into account 24 different governance provisions in 5 categories which are recorded by the Investor Responsibility Research Center (IRRC). The G-index for each firm varies from 0 to 24, constructed by adding one point to one specific governance provision. As a result, the lower the G-index, the higher is the firm's governance quality. Bebchuk, Cohen, and Ferrell (2005) argue that not all 24 governance provisions reduce firm value. They construct the E-index using only six provisions. Similar to the G-index, the higher the E-index, the lower is the quality of governance.

The third, and last, set of governance variables includes the percentage of independent directors on the board and the board size. Both measures serve as proxies for the quality of board of directors. Yermack (1996) shows an inverse relation between board size and firm value. His results suggest that the smaller the board, the higher is the quality of governance. In addition, existing studies provide some evidence for the independence of directors on the board. It seems that when boards have more independent directors, firms tend to make corporate decisions in the

best interests of shareholders (see, e.g., Weisbach (1988), Brickley, Coles, and Terry (1994), and Linck, Netter, and Yang (2008)).

Table 9 reports correlation coefficients between shareholder voting rights and other governance measures. The only variables that are significantly correlated with shareholder voting rights are ownership structures. Consistent with agency explanations, shareholder voting rights are positively associated with acquirer insider ownership, but negatively associated with target insider ownership. The relationship reverses for institutional holdings. In addition, both G-index and E-index are negatively, albeit insignificantly, correlated with shareholder voting rights. This indicates that the lower quality of the acquirer's governance, the higher is the probability that the acquirer's management will bypass shareholder voting rights.

Next, we re-examine, in a multivariate framework, the relationship between the probability of deal completion and shareholder voting rights. Table 10 presents regression results controlling for other corporate governance measures. Again, all of the models are estimated using two-stage least squares to jointly consider the effect of managerial discretion and shareholder voting rights. Those regression estimates show that our documented relationship between the probability of deal success and shareholder voting rights remains strong, indicating that shareholder voting rights are not simply manifestation of other governance measures. All of the coefficients are significant at least at the one percent level.

Finally, we re-estimate regressions of synergistic gains on shareholder voting rights while controlling for managerial discretion and other governance measures. In addition, following Wang and Xie (2008), we estimate the difference in G-indices between the target and acquiring firms. A similar estimate of the difference in E-indices between both parties is also constructed. These two measures are to control for possible governance transfers in takeover transactions. As shown in Table 11, shareholder voting rights remain an important determinant of synergistic gains even after we control for other governance measures and a variety of control variables. Overall, the findings in this section strongly support the predictions of the efficacy hypothesis.

6.4 Shareholder Voting Rights and Post-Acquisition Performance

So far, we have presented evidence that acquirers are less likely to require shareholder approval in value-decreasing acquisitions. Takeovers without shareholder voting rights are also more likely to succeed although synergies tend to be more negative. The inferences of our findings are based on the information around the deal announcements or during the process. In this section, we extend our study by comparing long-term performance after deal resolutions for offers with and without voting rights. Any significant findings in post-merger performance provide additional support for the efficacy of shareholder voting.

We measure post-merger performance by calculating two measures. The first is market-adjusted abnormal return in each deal for up to 24 months starting one month after the takeover process is completed.¹⁵ The CRSP equally-weighted returns are used as the market returns and the parameters for the market model are estimated before takeovers are announced. The second performance measure is the change in return on assets (ROA), calculated from one year before deal announcement to up to two years after the deal is resolved. ROA is the ratio of operating income to total assets.

Models 1 to 6 in Table 11 report the determinants of post-acquisition stock returns while models 7 to 12 report results of changes in operating performance. Also included in those models are controls such as deal characteristics, synergies, acquirer and target price run-ups and acquirer market-to-book ratio. As shown in the literature, those variables could also affect post-acquisition performance. New findings in this table are from three key explanatory variables that estimate the effect of shareholder approval in three forms of payment: cash, stock (“Stock Acquirer Vote”), and mixed deals (“Mixed Acquirer Vote”). The latter two are dummy variables equal to one if stock or mixed deals require acquirer shareholder approval. Consistent with

¹⁵ We also extend our analysis to 36 months. Results from both stock returns and operating performance remain similar.

existing studies, cash deals are associated with positive abnormal returns. We also find that mixed deals with shareholder approval earn positive abnormal returns. All six coefficients are both statistically and economically significant. The evidence indicates that shareholder voting provides explanatory power even after we control for several well-known control variables such as synergies and acquirer market-to-book ratios.

In addition, models 7 to 12 show that stock offers experience improvement in operating performance when they are voted by acquirer shareholders. Two coefficients that measure performance change within two years, however, are not significant. The change in ROA for voted stock offers ranges between 2.8% and 3.5%. Overall, the results provide some support for the argument that shareholder voting effects long term stock and operating performance.

7. Conclusions

While target shareholders own the rights to vote on proposed mergers, acquiring firm shareholders can only vote on deals in which the newly issued shares used to finance the merger surpass twenty percent of common shares outstanding before the issuance. This paper studies the determinants and implications of acquirer shareholder voting rights. First, we examine the key determinants of shareholder voting rights in mergers and acquisitions. We postulate that if managers are concerned about shareholder voting rights and their effect on the takeover process, certain deal and firm characteristics will vary systematically, reflecting managerial discretion on shareholder voting rights. We refer to this the managerial discretion hypothesis. Second, we investigate whether shareholder voting rights are associated with the probability of deal completion and synergistic gains. In particular, we test the efficacy hypothesis vs. the ineffective monitoring hypothesis.

Using a sample of 2,205 takeovers over the 1990 to 2005 period, we document that managers in acquiring firms with higher market-to-book ratios are less likely to grant shareholders rights to vote on merger proposals. We also find that deals with higher institutional

ownership are less likely to be associated with shareholder voting rights. Rau and Vermaelen (1998) show that mergers by high market-to-book bidders underperform in the long run. In addition, several studies provide evidence that institutional investors have lower approval rates in proxy proposals than do other investors (e.g., Brickley et al. (1988) and Bethel and Gillan (2002)). Thus, it is understandable that managers in acquiring firms with high market-to-book ratios or institutional holdings tend to avoid shareholder voting.

We further show that deal synergies in both percentage and dollar terms are higher for acquisitions that require acquirer shareholder approval. The proportion of deals with positive synergies is also higher when shareholder approval is required. In addition, merger proposals that require shareholder approval are associated with lower probability of success. Finally, we present evidence that acquisitions that do not require shareholder approval earn lower returns or suffer from poor operating performance in the subsequent two years after the mergers are resolved. Overall, our findings support the efficacy hypothesis, but not the ineffective monitoring hypothesis.

Agency theories relate governance issues in corporate acquisition policies. For example, Jensen's (1986) free cash flow hypothesis suggests that managers of acquiring firms pursue their personal interests from acquisitions. Roll's (1986) hubris hypothesis argues that acquirer managers could overpay for the deals. Grinstein and Hribar (2004) and Harford and Li (2007) further suggest that acquirer managers are richly rewarded through their takeover policies even though shareholders might receive little benefit. Our results suggest that shareholder voting rights in mergers provide an important monitoring and control mechanism and help to mitigate the conflicts of interest between managers and shareholders.

We also show that shareholder voting rights exert significant impact on shareholder wealth. Such evidence reveals that shareholder voting rights serve as an effective monitoring device for managerial acquisition policy. Existing state laws and stock exchange regulations allow acquiring firm managers to arrange the financing structure of the acquisitions to bypass

shareholder voting requirements. Not surprisingly, the acquisitions that are structured to bypass shareholder approval are more likely to be value-reducing deals. Coffee (1984) proposes that all acquisitions require shareholder approval from both bidding and target firms. Our findings suggest that such requirement can effectively reduce managerial opportunistic behavior.

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Table 1. Sample Distribution by Announcement Year and Form of Payment

The sample consists of U.S. mergers and acquisitions between 1990 and 2005. The sample sources are Securities Data Company (SDC), Lexis/Nexis, and SEC Edgar filings. To be included in the sample, the deal must be at least \$1 million with both the acquiring and the target firms listed on the CRSP and have at least 100 daily returns available to estimate the market model. The transaction value also needs to be at least 10% of the acquirer's market value. Mixed deals are those in which considerations of payment include both cash and acquirer stock offers. The sample is further classified by form of payment and whether the acquisition requires acquirer shareholder approval. Cash deals do not require acquirer shareholder votes. Stock and mixed deals need to obtain acquirer shareholder approval if the number of new shares issued by the bidding firm equals or exceeds twenty percent of existing shares outstanding.

Announcement Year	Form of Payment										Total
	<u>Cash</u>		<u>Stock</u>				<u>Mixed</u>				
	<u>No Vote</u>		<u>No Vote</u>		<u>Vote</u>		<u>No Vote</u>		<u>Vote</u>		
N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
1990	23	(43.40)	3	(5.66)	21	(39.62)	1	(1.89)	5	(9.43)	53
1991	17	(24.64)	11	(15.94)	28	(40.58)	1	(1.45)	12	(17.39)	69
1992	14	(20.90)	12	(17.91)	31	(46.27)	6	(8.96)	4	(5.97)	67
1993	19	(21.35)	9	(10.11)	42	(47.19)	10	(11.24)	9	(10.11)	89
1994	36	(25.35)	25	(17.61)	62	(43.66)	4	(2.82)	15	(10.56)	142
1995	55	(29.10)	32	(16.93)	85	(44.97)	3	(1.59)	14	(7.41)	189
1996	50	(26.04)	32	(16.67)	81	(42.19)	9	(4.69)	20	(10.42)	192
1997	58	(22.22)	37	(14.18)	139	(53.26)	12	(4.60)	15	(5.75)	261
1998	53	(21.54)	42	(17.07)	128	(52.03)	12	(4.88)	11	(4.47)	246
1999	70	(29.17)	34	(14.17)	94	(39.17)	16	(6.67)	26	(10.83)	240
2000	59	(30.57)	28	(14.51)	76	(39.38)	12	(6.22)	18	(9.33)	193
2001	23	(17.16)	19	(14.18)	58	(43.28)	15	(11.19)	19	(14.18)	134
2002	15	(25.42)	8	(13.56)	19	(32.20)	10	(16.95)	7	(11.86)	59
2003	29	(30.85)	6	(6.38)	28	(29.79)	15	(15.96)	16	(17.02)	94
2004	22	(23.16)	4	(4.21)	38	(40.00)	16	(16.84)	15	(15.79)	95
2005	19	(23.17)	5	(6.10)	19	(23.17)	21	(25.61)	18	(21.95)	82
Total	562	(25.49)	307	(13.92)	949	(43.04)	163	(7.39)	224	(10.16)	2205

Table 2. Deal, Acquirer, and Target Characteristics: Sorted by Form of Payment

Table 2 reports deal characteristics for the full sample and by form of payment. The sample contains U.S. mergers and acquisitions between 1990 and 2005. The sample sources are Securities Data Company (SDC), Lexis/Nexis, and SEC Edgar filings. To be included in the sample, the deal must be at least \$1 million with both the acquiring and the target firms listed on the CRSP and have at least 100 daily returns available to estimate the market model. The transaction value also needs to be at least 10% of the acquirer's market value. Transaction value is the total market value of consideration, in millions, excluding fees and expenses. Relative size is the transaction value divided by the average market value of equity of the acquirer over the (-30, -11) interval. Deal duration is measured as the length of time between the first formal announcement of the takeover and the announced resolution of the deal. Toehold is the percentage of target shares owned by the bidder prior to the announcement. Competed deals have more than one bidder for the same target. Attitude, measured as the percentage of friendly offers, is based on whether target management resisted or was faced with an unsolicited offer as determined by SDC. Deal status is measured as the percentage of deals that the targets are successfully acquired. Diversified deals are those that the bidder and the target have different two-digit SIC codes. Regulated industries are deals that either the bidder or the target is in regulated or financial industries (SIC 4900-4949 or 6000-6999). Poison pill equals one if the target has a shareholder rights plan after the announcement. Tender offer equals one if the bid is a tender offer. Acquirer lockup option equals one if the bidder is granted a lockup option by the target for the deal. In Panels B and C, cash includes cash and marketable securities. Market value of assets is total book assets minus the book value of equity plus market value of equity. Debt is the sum of long-term and short-term debts. ROA is the ratio of operating income to total assets. Treasury shares, in millions, represent the number of common shares held in treasury. $CAR_{(-250, -11)}$ is cumulative abnormal return estimated by the market model over the (-250, -11) interval. Institutional holdings are obtained from SEC 13F filings recorded by Spectrum. Institutional holdings are scaled by firm's total common shares outstanding. Median values are in brackets. We test whether deals requiring acquirer shareholder approval are different from those that do not by using the two-sided t-test and the Wilcoxon rank sum test. (***) (**), and (*) indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Deal Characteristics

	All	Cash	Stock		Mixed	
		No Vote	No Vote	Vote	No Vote	Vote
Transaction Value (\$MM)	1868.39 [244.02]	837.36 [165.75]	1158.49*** [205.35]***	2688.94 [325.23]	1888.92 [354.94]	1936.80 [277.79]
Relative Size	0.6501 [0.3988]	0.6477 [0.3250]	0.1869*** [0.1502]***	0.7380 [0.5748]	0.3266*** [0.2186]***	1.1537 [0.8710]
Duration	149.63 [129.00]	128.33 [99.00]	154.29 [132.00]	152.94 [130.00]	164.04 [144.00]	172.21 [155.00]
Toehold	0.64% [0.00%]	1.37% [0.00%]	0.51% [0.00%]	0.40% [0.00%]	0.17% [0.00%]	0.38% [0.00%]
Competed Deals (%)	7.98%	12.10%	1.96%***	5.69%	9.82%	14.29%
Attitude (%Friendly)	92.25%	83.27%	98.37%**	96.21%	95.09%**	87.50%
Deal Status (%Success Rate)	82.90%	76.69%	90.55%***	83.25%	88.96%*	82.14%
Diversified Deals (%)	30.07%	36.48%	25.73%	29.19%	30.68%*	23.21%
Regulated Industries (%)	34.79%	29.89%	42.67%***	33.30%	43.56%	36.16%
Poison Pill (%)	1.59%	4.09%	0.65%	0.42%	1.23%	1.79%
Tender Offers (%)	13.11%	40.57%	3.26%***	0.42%	13.50%	11.16%
Acquirer lockup options (%)	19.46%	6.76%	30.62%	27.61%	9.20%	8.93%

Table 2. (Continued)*Panel B. Acquiring Firms' Characteristics*

	All	Cash	Stock		Mixed	
		No Vote	No Vote	Vote	No Vote	Vote
(Cash/Assets) _{t-1}	0.1811 [0.0784]	0.1175 [0.0462]	0.1775** [0.0898]*	0.2252 [0.1181]	0.1627 [0.0640]	0.1816 [0.0845]
MV(Assets) _{t-1} (\$MM)	4819.57 [792.28]	3247.89 [722.82]	6601.59 [1614.81]***	4721.72 [648.24]	10916.14*** [2245.34]***	3542.80 [450.51]
BV(Assets) _{t-1} (\$MM)	2854.17 [444.22]	2584.45 [511.28]	3688.41 [621.88]***	2430.47 [315.79]	7055.63*** [1333.74]***	1719.72 [342.57]
(Debt/Assets) _{t-1}	0.2086 [0.1721]	0.2209 [0.1854]	0.1892 [0.1516]	0.2013 [0.1610]	0.2001 [0.1616]	0.2354 [0.2164]
ROA _{t-1}	0.0954 [0.1327]	0.1347 [0.1510]	0.1039** [0.1384]***	0.0659 [0.1150]	0.1236* [0.1457]**	0.0864 [0.1180]
(MV/BV) _{t-1}	2.1874 [1.5032]	1.5276 [1.2848]	3.0119** [1.9317]**	2.4889 [1.6729]	2.0334 [1.3456]	1.8245 [1.2769]
Treasury Shares _{t-1} (shares, MM)	5.4676 [0.0000]	6.5026 [0.0405]	3.4126 [0.0000]	5.1972 [0.0000]	10.3372* [0.0010]	3.1016 [0.0000]
CAR _(-250, -11)	0.0426 [0.0314]	-0.0456 [- 0.0541]	0.1655*** [0.1011]***	0.0524 [0.0552]	0.0571 [0.0616]	0.0433 [0.0207]
Institutional Holdings	0.4299 [0.4305]	0.4430 [0.4560]	0.4538** [0.4552]***	0.4127 [0.4040]	0.5077*** [0.5211]***	0.3767 [0.3488]

Panel C. Target Firms' Characteristics

	All	Cash	Stock		Mixed	
		No Vote	No Vote	Vote	No Vote	Vote
(Cash/Assets) _{t-1}	0.1877 [0.0870]	0.1097 [0.0409]	0.2278 [0.1402]	0.2318 [0.1238]	0.1795 [0.0885]	0.1659 [0.0724]
MV(Assets) _{t-1} (\$MM)	1545.22 [230.48]	781.08 [160.68]	953.56* [208.80]**	2109.33 [285.68]	1749.30 [440.66]	1744.81 [279.28]
BV(Assets) _{t-1} (\$MM)	1046.63 [155.60]	716.04 [153.61]	701.79* [124.95]**	1248.93 [137.61]	1279.34 [315.48]	1328.46 [240.34]
(Debt/Assets) _{t-1}	0.2052 [0.1601]	0.2331 [0.2003]	0.1653 [0.0948]	0.1856 [0.1300]	0.2453 [0.2269]	0.2364 [0.1996]
ROA _{t-1}	0.0796 [0.1227]	0.1081 [0.1312]	0.0627 [0.1242]	0.0594 [0.1136]	0.0884 [0.1189]	0.1051 [0.1250]
(MV/BV) _{t-1}	1.8862 [1.2561]	1.2025 [1.0332]	2.4034 [1.4168]	2.2881 [1.4481]	1.7443 [1.2318]	1.4754 [1.1238]
CAR _(-250, -11)	-0.0942 [- 0.0444]	-0.1031 [- 0.0730]	-0.0821 [-0.0101]*	-0.1187 [- 0.0481]	0.0246* [0.0402]**	-0.0715 [-0.0420]
Institutional Holdings	0.3559 [0.3163]	0.3596 [0.3154]	0.2924*** [0.2451]***	0.3659 [0.3292]	0.3727 [0.3169]	0.3766 [0.3715]

Table 3. Determinants of Acquirer Shareholders' Votes

This table presents results from logistic estimations of the probability of the deal requiring bidding firm's shareholders' votes. The dependent variable equals one if the deal requires acquirer shareholder approval and zero otherwise. Models 1 to 3 use all bids while models 4 to 6 use only stock and mixed deals only. Transaction value is the total market value of consideration, in millions, excluding fees and expenses. Relative size is the transaction value divided by the average market value of equity of the acquirer over the (-30, -11) interval. Toehold is the percentage of target shares owned by the bidder prior to the announcement. Competed deals have more than one bidder for the same target. Attitude, measured as the percentage of friendly offers, is based on whether target management resisted or was faced with an unsolicited offer as determined by SDC. Diversified deals are those that the bidder and the target have different two-digit SIC codes. Poison pill equals one if the target has a shareholder rights plan after the announcement. Tender offer equals one if the bid is a tender offer. Acquirer lockup option equals one if the bidder is granted a lockup option by the target for the deal. Cash includes cash and marketable securities. Debt is the sum of long-term and short-term debts. ROA is the ratio of operating income to total assets. Capex is capital expenditures. The market-to-book ratio, MV/BV, is defined as the ratio of the market value of assets to the book value of assets. $CAR_{(-250, -11)}$ is cumulative abnormal return estimated by the market model over the (-250, -11) interval. Institutional holdings are obtained from SEC 13F filings recorded by Spectrum. Institutional holdings are scaled by firm's total common shares outstanding. Heteroskedasticity-consistent covariance is used in the estimation procedure. P-values are reported in parentheses.

Table 3. (Continued)

	Panel A.			Panel B.		
	Sample: All Deals			Sample: Stock and Mixed Deals Only		
	[1]	[2]	[3]	[4]	[5]	[6]
<i>Deal Characteristics:</i>						
Ln(Transaction Value)	0.106*** (0.000)	1.617*** (0.000)	1.624*** (0.000)	-0.077** (0.048)	1.290** (0.013)	1.344** (0.016)
Relative Size	1.162*** (0.003)	-0.224* (0.092)	-0.273** (0.050)	7.856*** (0.000)	4.426 (0.166)	3.999 (0.216)
Toehold	-0.022 (0.140)	-0.002 (0.890)	-0.006 (0.753)	0.004 (0.906)	0.014 (0.573)	0.008 (0.766)
Competed Deals	0.085 (0.688)	0.126 (0.664)	0.091 (0.763)	-0.487 (0.207)	-0.452 (0.437)	-0.561 (0.372)
Attitude	0.505** (0.036)	1.073*** (0.001)	1.355*** (0.000)	-0.251 (0.580)	-0.413 (0.483)	-0.367 (0.627)
Diversified Deals	-0.06 (0.565)	-0.100 (0.510)	-0.102 (0.519)	0.131 (0.355)	0.228 (0.299)	0.216 (0.346)
Poison Pill	-0.81 (0.233)	-0.959 (0.247)	-0.576 (0.453)	-2.201 (0.224)	-3.292 (0.250)	-3.524 (0.176)
Tender Offers	-3.004*** (0.000)	-2.851*** (0.000)	-2.942*** (0.000)	-2.091*** (0.000)	-1.872*** (0.001)	-1.895*** (0.001)
Acquirer Lockup Options	0.502*** (0.000)	0.260 (0.227)	0.286 (0.189)	0.300** (0.032)	-0.255 (0.338)	-0.296 (0.262)
<i>Acquiring Firms' Characteristics:</i>						
(Cash/Assets) _{t-1}		1.278*** (0.004)	1.500*** (0.002)		1.113* (0.078)	1.359** (0.047)
Ln(BV Assets) _{t-1}		-1.555*** (0.000)	-1.543*** (0.000)		-1.393*** (0.004)	-1.426*** (0.008)
(Debt/Assets) _{t-1}		1.026** (0.017)	0.986** (0.027)		1.238 (0.118)	1.025 (0.248)
ROA _{t-1}		-0.619 (0.248)	-0.699 (0.221)		0.039 (0.952)	-0.081 (0.917)
(MV/BV) _{t-1}		-0.429*** (0.001)	-0.449*** (0.000)		-0.332** (0.019)	-0.372** (0.012)
CAR _(-250, -11)		-0.712*** (0.000)	-0.693*** (0.000)		-0.876*** (0.006)	-0.893*** (0.007)
<i>Institutional Ownership:</i>						
Acquirer Institutional Holdings			-1.506*** (0.000)			-2.166*** (0.000)
Target Institutional Holdings			1.067*** (0.008)			1.615*** (0.005)
Intercept	-1.387*** (0.000)	0.640 (0.155)	0.635 (0.185)	-1.379** (0.036)	1.534 (0.333)	2.160 (0.237)
N	2205	1353	1299	1643	978	929
Pseudo R ²	0.167	0.344	0.363	0.374	0.443	0.458

Table 4. Logistic Regressions Modeling the Probability of Completing a Takeover Transaction

This table shows results from logistic estimations of the probability of completing a proposed takeover transaction. The dependent variable is a dummy variable equal to one if the target is eventually acquired by the bidder. Acquirer Voting Rights equals one if the deal requires acquirer shareholder approval and zero otherwise. Models 1 and 2 use all bids while models 3 and 4 use only stock and mixed deals only. Cash Deal is a dummy variable with a value of one for cash deals. Transaction value is the total market value of consideration, in millions, excluding fees and expenses. Bid premium is calculated as $(\text{offer price} - P^T)/P^T$ where P^T is target firm's average stock price over the (-30, -11) interval. Toehold is the percentage of target shares owned by the bidder prior to the announcement. Competed deals have more than one bidder for the same target. Attitude, measured as the percentage of friendly offers, is based on whether target management resisted or was faced with an unsolicited offer as determined by SDC. Diversified deals are those that the bidder and the target have different two-digit SIC codes. Poison pill equals one if the target has a shareholder rights plan after the announcement. Tender offer equals one if the bid is a tender offer. Acquirer lockup option equals one if the bidder is granted a lockup option by the target for the deal. All Equity Deal is a dummy variable equal to one if the deal is completely financed using bidding firm's common shares. Heteroskedasticity-consistent covariance is used in the estimation procedure. P-values are reported in parentheses.

	(Panel A). Sample: All Deals	(Panel B). Sample: Stock and Mixed Deals Only
	[1]	[2]
Acquirer Voting Rights	-0.393** (0.043)	-0.374* (0.056)
Cash Deal	-0.686*** (0.008)	
Ln(Transaction Value)	0.124*** (0.003)	0.1398*** (0.005)
Premium	0.368* (0.082)	0.634** (0.013)
Toehold	0.016 (0.267)	0.019 (0.511)
Competed Deals	-1.994*** (0.000)	-2.308*** (0.000)
Attitude	3.476*** (0.000)	3.539*** (0.000)
Diversified Deals	-0.364** (0.012)	-0.509*** (0.003)
Poison Pill	-0.399 (0.554)	1.010 (0.290)
Tender Offers	1.803*** (0.000)	1.092* (0.082)
Acquirer Lockup Options	0.906*** (0.000)	0.831*** (0.001)
All Equity Deal	-0.191 (0.307)	-0.2279 (0.237)
Intercept	-0.550 (0.413)	-0.751 (0.365)
Year Fixed Effect	Yes	Yes
N	2205	1643
Pseudo R ²	0.278	0.237

Table 5. Announcement Returns, Bid Premiums and Synergy Gains: Sorted by Form of Payment

This table presents announcement returns, takeover premiums and synergy gains based on form of payment and whether the deal requires acquirer shareholder approval. The sample consists of U.S. mergers and acquisitions between 1990 and 2005. The sample sources are Securities Data Company (SDC), Lexis/Nexis, and SEC Edgar filings. To be included in the sample, the deal must be at least \$1 million with both the acquiring and the target firms listed on the CRSP and have at least 100 daily returns available to estimate the market model. The transaction value also needs to be at least 10% of the acquirer's market value. Takeover premium is calculated as $(\text{offer price} - P^T)/P^T$ where P^T is target firm's average stock price over the (-30, -11) interval. The percentage synergy gain, %CARC, is calculated as a value-weighted portfolio of the bidder and target returns, $ACAR_{(-2, +2)}$ and $TCAR_{(-2, +2)}$. The weights for the bidder and the target returns are based on the market value of equity ten days prior to the announcement. $ACAR_{(-2, +2)}$ ($TCAR_{(-2, +2)}$) denotes the five-day cumulative abnormal return of the acquiring (target) firms measured using the market model. The parameters for the market model are estimated over the (-210, -11) interval. The dollar value synergy gain (in millions), \$CARC, is defined as %CARC times the sum of the market value of equity for both the bidder and the target, adjusted for the percentage of target shares held by the acquirer prior to the announcement. Median values are in brackets. The percentage in the parentheses indicates the percentage of positive values. We test whether deals requiring acquirer shareholder approval are different from those that do not by using the two-sided t-test and the Wilcoxon rank sum test. (***) (**), and (*) indicate significance at the 1%, 5%, and 10% levels, respectively.

	<i>By Form of Payment</i>					
	Full Sample	Cash	Stock		Mixed	
		No Vote	No Vote	Vote	No Vote	Vote
$ACAR_{(-2, +2)}$	-0.0257 [-0.0199] (36.60%)	0.0071 [0.0046] (53.20%)	-0.0297*** [-0.0222]*** (29.97%)	-0.0462 [-0.0395] (28.98%)	-0.0187 [-0.0175] (39.26%)	-0.0209 [-0.0235] (34.38%)
$TCAR_{(-2, +2)}$	0.1599 [0.1437] (85.44%)	0.2125 [0.1900] (91.82%)	0.1734*** [0.1649]*** (84.69%)	0.1219 [0.1121] (80.82%)	0.1771 [0.1638] (87.12%)	0.1575 [0.1436] (88.84%)
Premium	0.3992 [0.3372]	0.4410 [0.3751]	0.4278** [0.3617]***	0.3648 [0.3002]	0.3577** [0.3245]**	0.4308 [0.3406]
%CARC	0.0124 [0.0099] (58.01%)	0.0460 [0.0395] (75.27%)	-0.0119 [-0.0061]* (45.92%)	-0.0049 [0.0011] (50.47%)	0.0080*** [0.0057]*** (53.98%)	0.0380 [0.0281] (66.07%)
\$CARC	-41.28 [3.48]	68.84 [13.95]	-29.72 [-3.62]	-88.42 [0.19]	-69.13 [2.83]**	-113.43 [6.11]

Table 6. Regression Analysis of the Effect of Shareholder Voting Rights on Deal Synergy

This table presents results from cross-sectional regression analysis of the effect of shareholder voting rights on synergy gains. Odd-numbered models present results using single OLS regressions. Even-numbered models present results from the simultaneous-equations estimation to control for possible endogenous relations between acquirer shareholder voting rights and deal synergy. Following Maddala (1983, p.244), we estimate the system using two stage least squares (TSLS). The first equation is the probit regression estimating the probability that a deal requires shareholders' approval from the bidding firm. The fitted dependent variable from the first equation is then included in the second equation as a regressor. The dependent variable in the second equation is either %CARC or \$CARC/TV. The percentage synergy gain, %CARC, is defined as $CAR_{(-2, +2)}$ for a value-weighted portfolio of the bidder and target returns. The weights for the bidder and the target are based on the market value of equity ten days prior to the announcement. The dollar value synergy gain (in millions), \$CARC, is defined as %CARC times the sum of the market value of equity for both the bidder and the target, adjusted for the percentage of target shares held by the acquirer prior to the announcement. \$CARC is normalized by transaction value (TV). Acquirer Voting Rights equals one if the deal requires acquirer shareholder approval and zero otherwise. Models 1 to 4 use all bids while models 5 to 8 use only stock and mixed deals only. Cash Deal is a dummy variable with a value of one for cash deals. Transaction value is the total market value of consideration, in millions, excluding fees and expenses. Toehold is the percentage of target shares owned by the bidder prior to the announcement. Competed deals have more than one bidder for the same target. Attitude, measured as the percentage of friendly offers, is based on whether target management resisted or was faced with an unsolicited offer as determined by SDC. Diversified deals are those that the bidder and the target have different two-digit SIC codes. Poison pill equals one if the target has a shareholder rights plan after the announcement. Tender offer equals one if the bid is a tender offer. Acquirer lockup option equals one if the bidder is granted a lockup option by the target for the deal. All Equity Deal is a dummy variable equal to one if the deal is completely financed using bidding firm's common shares. $CAR_{(-250, -11)}$ is cumulative abnormal return estimated by the market model over the (-250, -11) interval. Heteroskedasticity-consistent covariance is used in the estimation procedure. P-values are reported in parentheses.

Table 6. (Continued)

	Panel A.				Panel B.			
	Sample: All Deals				Sample: Stock and Mixed Deals Only			
	<i>Dependent Variable:</i>				<i>Dependent Variable:</i>			
	<i>%CARC</i>		<i>\$CARC/TV</i>		<i>%CARC</i>		<i>\$CARC/TV</i>	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
OLS	TSLs	OLS	TSLs	OLS	TSLs	OLS	TSLs	
Acquirer Voting Rights	0.011*** (0.008)		0.063** (0.013)		0.011** (0.016)		0.056** (0.026)	
<i>(Fitted)</i> Acquirer Voting Rights		0.145*** (0.000)		0.184*** (0.000)		0.131*** (0.000)		0.284*** (0.000)
Cash Deal	0.027*** (0.000)	0.026*** (0.000)	0.135*** (0.000)	0.105*** (0.000)				
Ln(Transaction Value)	-0.003*** (0.001)	-0.008*** (0.000)	-0.011** (0.011)	-0.016*** (0.000)	-0.003*** (0.009)	-0.007*** (0.000)	-0.008* (0.087)	-0.017*** (0.001)
Toehold	0.000 (0.370)	0.000 (0.478)	-0.001 (0.569)	0.000 (0.925)	0.000 (0.658)	0.000 (0.297)	0.001 (0.487)	0.002 (0.287)
Competed Deal	-0.008 (0.154)	-0.015** (0.014)	-0.027 (0.146)	-0.032* (0.084)	0.006 (0.444)	-0.001 (0.934)	0.016 (0.453)	0.005 (0.809)
Attitude	-0.016** (0.017)	-0.025*** (0.000)	-0.010 (0.579)	-0.025 (0.193)	-0.022** (0.021)	-0.028*** (0.002)	-0.036 (0.128)	-0.054** (0.021)
Diversified Deal	-0.003 (0.512)	-0.002 (0.678)	0.002 (0.884)	0.004 (0.813)	-0.002 (0.723)	-0.001 (0.819)	-0.005 (0.812)	-0.003 (0.871)
Poison Pill	-0.016 (0.277)	-0.003 (0.844)	-0.072** (0.033)	-0.058* (0.083)	0.008 (0.756)	0.025 (0.306)	-0.025 (0.550)	0.007 (0.872)
Tender Offers	0.019*** (0.001)	0.086*** (0.000)	0.053** (0.031)	0.134*** (0.000)	0.023* (0.062)	0.082*** (0.000)	0.026 (0.564)	0.145*** (0.007)
Acquirer Lockup Options	-0.006 (0.215)	-0.018*** (0.000)	-0.010 (0.611)	-0.026 (0.151)	-0.005 (0.275)	-0.018*** (0.001)	-0.017 (0.413)	-0.045** (0.026)
All Equity Deal	-0.022*** (0.000)	-0.016*** (0.000)	-0.083*** (0.000)	-0.068*** (0.000)	-0.0216*** (0.000)	-0.016*** (0.001)	-0.083*** (0.000)	-0.067*** (0.000)
Acquirer CAR _(-250, -11)	-0.017*** (0.003)	-0.015*** (0.006)	-0.045 (0.104)	-0.046* (0.097)	-0.019*** (0.003)	-0.018*** (0.004)	-0.059* (0.075)	-0.059* (0.073)
Target CAR _(-250, -11)	0.004 (0.419)	0.005 (0.345)	0.025 (0.283)	0.025 (0.293)	0.009 (0.114)	0.010* (0.094)	0.033 (0.232)	0.033 (0.228)
Intercept	0.046*** (0.000)	0.003 (0.814)	0.087 (0.088)	0.054 (0.309)	0.046*** (0.003)	0.004 (0.795)	0.086 (0.145)	0.012 (0.849)
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	2205	2205	2205	2205	1643	1643	1643	1643
Adjusted R ²	0.084	0.124	0.066	0.065	0.045	0.075	0.029	0.032

Table 7. Univariate Analysis of Deal Synergy and Deal Success: Sorted by Form of Payment and Acquiring Firm Size

The sample consists of all U.S. mergers and acquisitions between 1990 and 2005. The sample sources are Securities Data Company (SDC), Lexis/Nexis, and SEC Edgar filings. To be included in the sample, the deal must be at least \$1 million with both the acquiring and the target firms listed on the CRSP and have at least 100 daily returns available to estimate the market model. The transaction value also needs to be at least 10% of the acquirer's market value. Panels A and B present synergy gains and deal success rates for small and large firms, respectively. Large (small) acquirers have market capitalizations equal to or greater (less) than those of the 25th percentile of NYSE firms in the same year. The percentage synergy gain, %CARC, is defined as $CAR_{(-2, +2)}$ for a value-weighted portfolio of the bidder and target returns. $ACAR_{(-2, +2)}$ (TCAR_(-2, +2)) is the five-day cumulative abnormal return of the acquiring (target) firms measured using the market model. The parameters for the market model are estimated over the (-210, -11) interval. The weights for the bidder and the target are based on the market value of equity ten days prior to the announcement. The dollar value synergy gain (in millions), \$CARC, is defined as %CARC times the sum of the market value of equity for both the bidder and the target, adjusted for the percentage of target shares held by the acquirer prior to the announcement. Median values are in brackets. The percentage in the parentheses indicates the percentage of positive values. We test whether deals requiring acquirer shareholder approval are different from those that do not by using the two-sided t-test and the Wilcoxon rank sum test. (***), (**), and (*) indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Small Firms					
	Cash	Stock		Mixed	
	No Vote	No Vote	Vote	No Vote	Vote
%CARC	0.0672 [0.0631] (77.96%)	-0.0148 [-0.0146]* (39.02%)	0.0041 [0.0102] (56.59%)	0.0184* [0.0134]* (60.53%)	0.0449 [0.0348] (70.59%)
\$CARC	11.89 [6.63]	-10.69 [-3.09]**	-3.29 [1.12]	5.04** [2.62]	13.97 [3.34]
Deal Success	0.7258	0.8537	0.7942	0.8158	0.8333
<i>N</i>	186	41	311	38	102
Panel B. Large Firms					
	Cash	Stock		Mixed	
	No Vote	No Vote	Vote	No Vote	Vote
%CARC	0.0352 [0.0296] (73.43%)	-0.0106 [-0.0040] (47.31%)	-0.0093 [-0.0040] (47.31%)	0.0033*** [0.0014]*** (51.22%)	0.0314 [0.0147] (61.74%)
\$CARC	98.38 [32.69]	-41.59 [-5.11]	-134.36 [-4.44]	-93.67 [0.93]**	-234.17 [10.69]
Deal Success	0.7836	0.9154**	0.8516	0.9106**	0.8087
<i>N</i>	365	260	613	123	115

Table 8. Univariate Analysis of Deal Synergy and Deal Success: Sorted by Form of Payment and Estimated Percentage of New Shares Issued

The sample consists of all U.S. mergers and acquisitions between 1990 and 2005. The sample sources are Securities Data Company (SDC), Lexis/Nexis, and SEC Edgar filings. To be included in the sample, the deal must be at least \$1 million with both the acquiring and the target firms listed on the CRSP and have at least 100 daily returns available to estimate the market model. The transaction value also needs to be at least 10% of the acquirer's market value. Panels A and B present synergy gains and deal success rates for stock and mixed offers, respectively. The percentage synergy gain, %CARC, is defined as $CAR_{(-2, +2)}$ for a value-weighted portfolio of the bidder and target returns. $ACAR_{(-2, +2)}$ ($TCAR_{(-2, +2)}$) is the five-day cumulative abnormal return of the acquiring (target) firms measured using the market model. The parameters for the market model are estimated over the (-210, -11) interval. The weights for the bidder and the target are based on the market value of equity ten days prior to the announcement. The dollar value synergy gain (in millions), \$CARC, is defined as %CARC times the sum of the market value of equity for both the bidder and the target, adjusted for the percentage of target shares held by the acquirer prior to the announcement. Median values are in brackets. The percentage in the parentheses indicates the percentage of positive values. We test whether deals with lower than 20% of new shares issued are different from those with more than or equal to 20% of new shares issued by using the two-sided t-test and the Wilcoxon rank sum test. (***) (**), and (*) indicate significance at the 1%, 5%, and 10% levels, respectively.

	Panel A. Stock Offers					Panel B. Mixed Offers				
	<i>Estimated Percent of New Shares Issued:</i>					<i>Estimated Percent of New Shares Issued:</i>				
	<0.2	0.2-0.4	0.4-0.6	0.6-0.8	>0.8	<0.2	0.2-0.4	0.4-0.6	0.6-0.8	>0.8
%CARC	-0.0134* [-0.0073]** (43.90%)	-0.0165 [-0.0037] (46.02%)	-0.0065 [-0.0066] (46.04%)	0.0026 [0.0078] (54.76%)	0.0076 [0.0127] (58.85%)	0.0102*** [0.0058]*** (54.76%)	0.0249 [0.0218] (65.26%)	0.0304 [0.0245] (62.07%)	0.0519 [0.0177] (69.23%)	0.0655 [0.0540] (70.00%)
\$CARC	-45.12 [-6.47]**	-143.63 [-1.13]	9.81 [-1.95]	-104.90 [1.83]	-60.61 [4.13]	-66.73 [3.15]**	-230.10 [3.24]	-207.71 [5.99]	179.44 [12.33]	94.42 [12.73]
Deal Success	0.9129***	0.8909	0.8762	0.8155	0.7308	0.8929***	0.8526	0.8448	0.8846	0.6500
<i>N</i>	287	339	202	168	260	168	95	58	26	40

Table 9. Pearson Correlation Matrix of Governance Measures

The sample consists of all U.S. mergers and acquisitions between 1990 and 2005. The sample sources are Securities Data Company (SDC), Lexis/Nexis, and SEC Edgar filings. To be included in the sample, the deal must be at least \$1 million with both the acquiring and the target firms listed on the CRSP and have at least 100 daily returns available to estimate the market model. The transaction value also needs to be at least 10% of the acquirer's market value. Acquirer Voting Rights equals one if the deal requires acquirer shareholder approval and zero otherwise. Insider ownership is calculated as aggregate holdings of officers and directors. Institutional holdings are obtained from SEC 13F filings recorded by Spectrum. Both insider ownership and institutional holdings are scaled by firm's total common shares outstanding. G-Index is taken from Gompers, Ishii, and Metrick (2003) and is based on 24 antitakeover provisions. E-Index is taken from Bebchuk, Cohen, and Ferrell (2004) and is based on 6 antitakeover provisions. Both G-Index and E-Index have the same interpretation: higher index levels suggest more managerial power and poorer corporate governance. Board size is the number of directors on the board. "% Indep. Directors" is the percentage of independent directors on the board. (***) (**), and (*) indicate significance at the 1%, 5%, and 10% levels, respectively. P-values are in parentheses.

Table 9. (Continued)

	Acquirer Voting Rights	<i>Acquiring Firms' Governance Measures</i>					<i>Target Firms' Governance Measures</i>					
		Insider Ownership	Institutional Holdings	G-Index	E-Index	Board Size	% Indep. Directors	Insider Ownership	Institutional Holdings	G-Index	E-Index	Board Size
<i>Acquiring Firms' Governance Measures</i>												
Insider Ownership	0.088*** (0.000)											
Institutional Holdings	-0.102*** (0.000)	-0.397*** (0.000)										
G-Index	-0.027 (0.417)	-0.231*** (0.000)	0.047 (0.166)									
E-Index	-0.010 (0.776)	-0.163*** (0.000)	-0.034 (0.318)	0.748*** (0.000)								
Board Size	0.064 (0.120)	-0.144*** (0.001)	-0.270*** (0.000)	0.127*** (0.002)	0.008 (0.841)							
% Indep. Directors	0.041 (0.312)	-0.431*** (0.000)	0.114*** (0.006)	0.277*** (0.000)	0.252*** (0.000)	0.092** (0.024)						
<i>Target Firms' Governance Measures</i>												
Insider Ownership	-0.056** (0.019)	0.255*** (0.000)	-0.176*** (0.000)	-0.075** (0.043)	-0.002 (0.964)	-0.159*** (0.000)	-0.092** (0.040)					
Institutional Holdings	0.052** (0.017)	-0.239*** (0.001)	0.572*** (0.000)	0.032 (0.349)	-0.082** (0.018)	0.000 (0.999)	0.149*** (0.000)	-0.407*** (0.000)				
G-Index	-0.028 (0.520)	-0.118** (0.011)	-0.007 (0.881)	0.034 (0.489)	0.021 (0.685)	0.218*** (0.000)	0.027 (0.646)	-0.237*** (0.000)	0.059 (0.173)			
E-Index	-0.080* (0.065)	-0.079* (0.088)	-0.001 (0.992)	0.044 (0.374)	0.061 (0.236)	0.169*** (0.004)	-0.027 (0.647)	-0.185*** (0.000)	0.013 (0.769)	0.763*** (0.000)		
Board Size	0.085 (0.189)	-0.133* (0.062)	-0.078 (0.239)	-0.023 (0.757)	-0.076 (0.312)	0.402*** (0.000)	-0.014 (0.852)	-0.092 (0.182)	-0.094 (0.150)	0.344*** (0.001)	0.229*** (0.004)	
% Indep. Directors	0.082 (0.205)	-0.050 (0.481)	-0.072 (0.275)	0.025 (0.734)	0.007 (0.924)	0.105 (0.165)	0.050 (0.506)	-0.292*** (0.000)	0.023 (0.647)	0.129** (0.047)	0.164** (0.011)	0.085 (0.188)

**Table 10. Logistic Regressions Modeling the Probability of Completing a Takeover Transaction:
Results from Including Additional Control Variables for Corporate Governance**

This table shows results from logistic estimations of the probability of completing a proposed takeover transaction. All models present results from the simultaneous-equations estimation to control for possible endogenous relations between acquirer shareholder voting rights and probability of deal success. Following Maddala (1983, p.244), we estimate the system using two stage least squares (TSLS). The first equation is the probit regression estimating the probability that a deal requires shareholders' approval from the bidding firm. The fitted dependent variable from the first equation is then included in the second equation as a regressor. The dependent variable in the second equation is a dummy variable equal to one if the target is eventually acquired by the bidder. Acquirer Voting Rights equals one if the deal requires acquirer shareholder approval and zero otherwise. Insider ownership is calculated as aggregate holdings of officers and directors. Institutional holdings are obtained from SEC 13F filings recorded by Spectrum. Both insider ownership and institutional holdings are scaled by firm's total common shares outstanding. G-Index is taken from Gompers, Ishii, and Metrick (2003) and is based on 24 antitakeover provisions. E-Index is taken from Bebchuk, Cohen, and Ferrell (2004) and is based on 6 antitakeover provisions. Both G-Index and E-Index have the same interpretation: higher index levels suggest more managerial power and poorer corporate governance. Board size is the number of directors on the board. "% Indep. Directors" is the percentage of independent directors on the board. Transaction value is the total market value of consideration, in millions, excluding fees and expenses. Bid premium is calculated as $(\text{offer price} - P^T)/P^T$ where P^T is target firm's average stock price over the (-30, -11) interval. Toehold is the percentage of target shares owned by the bidder prior to the announcement. Competed deals have more than one bidder for the same target. Attitude, measured as the percentage of friendly offers, is based on whether target management resisted or was faced with an unsolicited offer as determined by SDC. Diversified deals are those that the bidder and the target have different two-digit SIC codes. Poison pill equals one if the target has a shareholder rights plan after the announcement. Tender offer equals one if the bid is a tender offer. Acquirer lockup option equals one if the bidder is granted a lockup option by the target for the deal. All Equity Deal is a dummy variable equal to one if the deal is completely financed using bidding firm's common shares. Heteroskedasticity-consistent covariance is used in the estimation procedure. P-values are reported in parentheses.

Table 10. (Continued)

Sample: Stock and Mixed Deals Only
 Dependent Variable: 1 (Success); 0 (Withdrawn)
 Estimation Method: TSLS

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
<i>(Fitted)</i> Acquirer Voting Rights	-2.690*** (0.004)	-4.832*** (0.003)	-5.704*** (0.002)	-6.212*** (0.000)	-4.985*** (0.002)	-6.984*** (0.000)	-4.952*** (0.003)
Acquirer Insider Ownership	-0.103 (0.882)						
Acquirer Institutional Holdings	1.034 (0.123)						
Target Insider Ownership	-0.513 (0.411)						
Target Institutional Holdings	-0.340 (0.575)						
Acquirer G-Index		0.205** (0.011)					
Target G-Index		0.004 (0.962)					
Acquirer E-Index			0.531*** (0.006)				
Target E-Index			-0.035 (0.860)				
Acquirer Board Size				0.129** (0.024)			
Target Board Size					-0.007 (0.933)		
% Acquirer Indep. Directors						2.925*** (0.003)	
% Target Indep. Directors							1.397 (0.380)
Ln(Transaction Value)	0.197** (0.023)	0.185 (0.212)	0.345** (0.034)	0.216 (0.154)	0.299 (0.127)	0.288** (0.050)	0.267 (0.135)
Premium	0.548* (0.077)	1.822** (0.050)	2.227** (0.032)	1.435* (0.064)	2.251* (0.068)	1.582* (0.061)	2.282* (0.054)
Toehold	0.014 (0.587)	-0.065* (0.080)	-0.061 (0.109)	-0.037 (0.236)	-0.097** (0.022)	-0.041 (0.144)	-0.074 (0.125)
Competed Deal	-2.227*** (0.000)	-1.710*** (0.001)	-1.665*** (0.003)	-2.544*** (0.000)	-1.840** (0.014)	-2.457*** (0.000)	-1.866** (0.019)
Attitude	3.900*** (0.000)	4.014*** (0.000)	4.039*** (0.000)	3.865*** (0.000)	3.812*** (0.000)	4.103*** (0.000)	3.862*** (0.000)
Diversified Deal	-0.415* (0.060)	0.156 (0.798)	0.006 (0.992)	-0.759* (0.076)	-0.508 (0.398)	-0.862** (0.035)	-0.470 (0.421)
Poison Pill	-0.133 (0.880)	-2.171 (0.108)	-2.948* (0.053)	-2.370 (0.145)	-2.656** (0.031)	-2.826* (0.087)	-2.382* (0.052)
Tender Offers	-0.618 (0.428)	-2.088* (0.080)	-2.747** (0.032)	-2.081 (0.102)	0.546 (0.697)	-2.483** (0.029)	0.563 (0.694)
Acquirer Lockup Options	1.026*** (0.001)	0.009 (0.986)	0.242 (0.628)	0.309 (0.539)	-0.106 (0.884)	0.415 (0.389)	-0.117 (0.874)
All Equity Deal	-0.727*** (0.002)	-0.426 (0.359)	-0.708 (0.153)	-0.816* (0.058)	-0.489 (0.390)	-0.796* (0.066)	-0.522 (0.366)
Intercept	-1.104 (0.181)	-1.606 (0.385)	-1.406 (0.351)	0.429 (0.771)	-0.531 (0.780)	-0.387 (0.763)	-1.367 (0.464)
N	1066	321	301	446	183	446	183
Pseudo R ²	0.241	0.342	0.338	0.369	0.323	0.382	0.328

**Table 11. Regression Analysis of the Effect of Shareholder Voting Rights on Deal Synergy:
Results from Including Additional Control Variables for Corporate Governance**

This table presents results from cross-sectional regression analysis of the effect of shareholder voting rights on synergy gains. All models present results from the simultaneous-equations estimation to control for possible endogenous relations between acquirer shareholder voting rights and deal synergy. Following Maddala (1983, p.244), we estimate the system using two stage least squares (TSLS). The first equation is the probit regression estimating the probability that a deal requires shareholders' approval from the bidding firm. The fitted dependent variable from the first equation is then included in the second equation as a regressor. The dependent variable in the second equation is %CARC. The percentage synergy gain, %CARC, is defined as $CAR_{(-2, +2)}$ for a value-weighted portfolio of the bidder and target returns. The weights for the bidder and the target are based on the market value of equity ten days prior to the announcement. Acquirer Voting Rights equals one if the deal requires acquirer shareholder approval and zero otherwise. Insider ownership is calculated as aggregate holdings of officers and directors. Institutional holdings are obtained from SEC 13F filings recorded by Spectrum. Both insider ownership and institutional holdings are scaled by firm's total common shares outstanding. G-Index is taken from Gompers, Ishii, and Metrick (2003) and is based on 24 antitakeover provisions. E-Index is taken from Bebchuk, Cohen, and Ferrell (2004) and is based on 6 antitakeover provisions. Both G-Index and E-Index have the same interpretation: higher index levels suggest more managerial power and poorer corporate governance. Board size is the number of directors on the board. "% Indep. Directors" is the percentage of independent directors on the board. Transaction value is the total market value of consideration, in millions, excluding fees and expenses. Toehold is the percentage of target shares owned by the bidder prior to the announcement. Competed deals have more than one bidder for the same target. Attitude, measured as the percentage of friendly offers, is based on whether target management resisted or was faced with an unsolicited offer as determined by SDC. Diversified deals are those that the bidder and the target have different two-digit SIC codes. Poison pill equals one if the target has a shareholder rights plan after the announcement. Tender offer equals one if the bid is a tender offer. Acquirer lockup option equals one if the bidder is granted a lockup option by the target for the deal. All Equity Deal is a dummy variable equal to one if the deal is completely financed using bidding firm's common shares. Heteroskedasticity-consistent covariance is used in the estimation procedure. P-values are reported in parentheses.

Table 11. (Continued)

	Sample: Stock and Mixed Deals Only						
	Dependent Variable: %CARC						
	Estimation Method: TSLS						
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
<i>(Fitted)</i> Acquirer Voting Rights	0.139*** (0.000)	0.112*** (0.003)	0.105*** (0.009)	0.145*** (0.000)	0.180*** (0.001)	0.126*** (0.002)	0.171*** (0.001)
Acquirer Insider Ownership	0.009 (0.635)						
Acquirer Institutional Holdings	0.031** (0.039)						
Target Insider Ownership	0.001 (0.956)						
Target Institutional Holdings	-0.029* (0.077)						
Target G-Index - Acquirer G-Index		0.002** (0.035)					
Target E-Index - Acquirer E-Index			0.003 (0.149)				
Acquirer Board Size				0.002** (0.016)			
Target Board Size					0.002 (0.247)		
% Acquirer Indep. Directors						0.012 (0.639)	
% Target Indep. Directors							0.022 (0.520)
Ln(Transaction Value)	-0.008*** (0.001)	-0.007** (0.019)	-0.007** (0.044)	-0.010*** (0.003)	-0.013** (0.025)	-0.007** (0.017)	-0.011** (0.035)
Toehold	0.000 (0.588)	-0.001 (0.705)	0.000 (0.821)	0.000 (0.869)	-0.002 (0.400)	0.000 (0.980)	-0.002 (0.486)
Competed Deal	0.005 (0.571)	-0.004 (0.702)	-0.001 (0.949)	0.000 (0.973)	-0.008 (0.617)	0.002 (0.780)	-0.009 (0.575)
Attitude	-0.034*** (0.001)	-0.041*** (0.001)	-0.044*** (0.001)	-0.040*** (0.003)	-0.043*** (0.008)	-0.037*** (0.004)	-0.043*** (0.008)
Diversified Deal	-0.002 (0.691)	0.001 (0.941)	-0.001 (0.891)	-0.010 (0.248)	-0.003 (0.861)	-0.011 (0.193)	-0.006 (0.719)
Poison Pill	0.001 (0.969)	0.021* (0.084)	0.020 (0.110)	0.043 (0.192)	0.029 (0.151)	0.039 (0.261)	0.027 (0.225)
Tender Offers	0.071*** (0.000)	0.067*** (0.007)	0.062** (0.018)	0.078*** (0.001)	0.111*** (0.002)	0.068*** (0.004)	0.112*** (0.001)
Acquirer Lockup Options	-0.009 (0.192)	0.003 (0.745)	0.003 (0.762)	-0.010 (0.338)	0.001 (0.937)	-0.005 (0.592)	0.002 (0.910)
All Equity Deal	-0.016*** (0.003)	-0.008 (0.295)	-0.010 (0.202)	-0.014* (0.070)	-0.006 (0.649)	-0.013* (0.097)	-0.005 (0.665)
Intercept	0.001 (0.957)	0.019 (0.507)	0.021 (0.481)	-0.001 (0.960)	0.000 (0.991)	0.004 (0.886)	0.002 (0.972)
N	1066	321	301	446	183	446	183
Adjusted R ²	0.047	0.053	0.052	0.042	0.105	0.031	0.100

Table 12. Long Term Stock and Operating Performance

The dependent variable is market-adjusted abnormal returns (models 1 to 6) or changes in return on assets (7 to 12). We calculate abnormal return for each deal starting from one day after the deal is resolved to one or two years. The change in ROA is measured from one year before deal announcement to one or two years after the deal is resolved. ROA is the ratio of operating income to total assets. Cash is a dummy variable with a value of one for cash deals. Stock (Mixed) Acquirer Vote equals one if the stock (mixed) deal requires acquirer shareholder approval and zero otherwise. Relative size is the transaction value divided by the average market value of equity of the acquirer over the (-30, -11) interval. Deal Success equals one for successful deals and zero otherwise. Bid premium is calculated as (offer price – P^T)/P^T where P^T is target firm’s average stock price over the (-30, -11) interval. Diversified deals are those that the bidder and the target have different two-digit SIC codes. Regulated industries are deals that either the bidder or the target is in regulated or financial industries (SIC 4900-4949 or 6000-6999). Synergy is the percentage synergy gain, defined as CAR_(-2, +2) for a value-weighted portfolio of the bidder and target returns. The weights for the bidder and the target are based on the market value of equity ten days prior to the announcement. CAR_(-250, -11) is cumulative abnormal return estimated by the market model over the (-250, -11) interval. Acquirer MV/BV is acquirer’s market-to-book ratio, defined as the ratio of the market value of assets to the book value of assets. This variable is measured one year before deal announcement. Heteroskedasticity-consistent covariance is used in the estimation procedure. P-values are reported in parentheses.

	Dependent Variable:						Dependent Variable:					
	CAR(0, +1)		CAR(0, +2)				ΔROA(-1, +1)			ΔROA(-1, +2)		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Intercept	-0.343 (0.000)	-0.261 (0.000)	-0.140 (0.134)	-0.640 (0.000)	-0.487 (0.000)	-0.226 (0.163)	-0.079 (0.001)	-0.060 (0.004)	-0.041 (0.081)	-0.074 (0.007)	-0.057 (0.026)	-0.043 (0.085)
Cash Deal	0.302 (0.000)	0.145 (0.000)	0.332 (0.000)	0.519 (0.000)	0.231 (0.000)	0.555 (0.000)	0.006 (0.756)	0.009 (0.639)	0.002 (0.925)	0.003 (0.846)	0.004 (0.840)	0.006 (0.717)
Stock Acquirer Voting Rights	-0.002 (0.968)	-0.061 (0.119)	0.024 (0.738)	-0.026 (0.756)	-0.137 (0.028)	-0.002 (0.986)	0.032 (0.041)	0.031 (0.052)	0.030 (0.033)	0.031 (0.131)	0.028 (0.179)	0.035 (0.078)
Mixed Acquirer Voting Rights	0.179 (0.003)	0.169 (0.001)	0.158 (0.075)	0.339 (0.000)	0.324 (0.000)	0.326 (0.027)	-0.007 (0.750)	-0.005 (0.838)	-0.011 (0.630)	0.029 (0.252)	0.033 (0.209)	0.026 (0.311)
Relative Size	-0.010 (0.663)	-0.014 (0.503)	-0.030 (0.190)	-0.029 (0.492)	-0.036 (0.301)	-0.073 (0.133)	0.000 (0.958)	0.000 (0.996)	-0.001 (0.850)	-0.025 (0.200)	-0.025 (0.225)	-0.027 (0.174)
Deal Success	-0.015 (0.743)	0.023 (0.571)	-0.013 (0.829)	-0.021 (0.794)	0.053 (0.430)	0.014 (0.898)	0.006 (0.683)	0.003 (0.827)	0.006 (0.637)	0.027 (0.162)	0.027 (0.167)	0.028 (0.141)
Premium	-0.206 (0.002)	0.001 (0.986)	-0.171 (0.028)	-0.368 (0.000)	0.013 (0.870)	-0.288 (0.016)	0.013 (0.513)	0.024 (0.267)	0.023 (0.244)	0.003 (0.876)	0.014 (0.494)	0.009 (0.662)
Diversified Deals	-0.031 (0.458)	-0.055 (0.100)	-0.020 (0.705)	0.005 (0.939)	-0.041 (0.429)	0.012 (0.892)	0.003 (0.791)	0.004 (0.730)	-0.001 (0.948)	0.000 (0.996)	0.001 (0.963)	-0.002 (0.863)
Regulated Industries	0.238 (0.000)	0.225 (0.000)		0.436 (0.000)	0.417 (0.000)							
Dummy (Synergy > 0)	0.089 (0.019)			0.180 (0.005)			0.033 (0.009)			0.032 (0.022)		
Acquirer CAR _(-250, -11)		-1.084 (0.000)			-2.008 (0.000)			-0.024 (0.261)			-0.036 (0.092)	
Target CAR _(-250, -11)		0.104 (0.012)			0.165 (0.015)			0.019 (0.329)			0.003 (0.870)	
Acquirer (MV/BV) _{t-1}			-0.078 (0.000)			-0.160 (0.000)			-0.008 (0.166)			-0.007 (0.350)
N	2141	2141	1319	2141	2141	1319	1204	1204	1189	1081	1081	1067
Adjusted R ²	0.053	0.387	0.069	0.060	0.455	0.089	0.003	0.001	0.004	0.019	0.020	0.022