Is Acquiring-Firm Shareholder Approval in Stock-for-Stock Mergers Perfunctory?

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Despite mixed stock returns for acquirer shareholders in large stock-for-stock mergers, acquiring-firm merger proxy votes rarely fail; in the sample we examine, the average approval rate of votes cast is 95%. Our examination of whether merger votes are effective in monitoring management's acquisition policy indicates that the margin of approval varies substantially with firm and deal characteristics, and while there are no failed votes in our sample some deals are only narrowly approved. These findings support the notion that merger proxy votes provide credible threats despite high average approval rates.

Many authors document that stock-for-stock mergers are associated with mixed returns for acquiring-firm shareholders. Jensen and Ruback (1983), Jarrell, Brickley, and Netter (1998), and Maquieira, Megginson, and Nail (1998) are examples. Yet, even acquisitions with negative acquirer stock announcement returns are usually approved in merger votes by acquiring-firm shareholders, often at passage rates that seem to indicate strong support.

A good example is Clear Channel Communication's acquisition of AMFM, Inc., in 2000. Clear Channel's stock dropped by more than 7% over the three days in October 1999 when the deal was rumored and eventually announced. The stock then declined an additional 6% over the 141 days leading up to the merger vote. Both of these returns were even worse on an industry- or market-adjusted basis. Despite the market's negative assessment of the deal, 82% of Clear Channel's possible votes were cast in favor of the acquisition, including 79% of non-management votes (assuming management's vote was 100% in favor).

Do shareholders faced with a merger proxy vote become informed? Do they evaluate the pros and cons of the deal, or do most simply accept management's recommendation to grant approval? Are acquiring-firm shareholder merger votes perfunctory?

Stock-for-stock mergers can result in substantial dilution in ownership for acquiring-firm shareholders, which is why US stock exchanges require shareholder approval when dilution levels reach 20%. These merger deals tend to be large, and have great potential to impact shareholder wealth.

In theory, merger votes can serve as a check on management's acquisition policy in such large stock deals, but there are reasons to question whether these votes are effective. First, the mean approval rate for proposals regarding acquisitions is quite high. Bethel and Gillan (2002) find a mean approval rate of 90% in votes cast for eight proposals either to make an acquisition or to be acquired. The mean approval rate in our sample, which includes only proposals to make an acquisition, is even higher at 98%. These rates are substantially higher than the 78% mean

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approval rate Bethel and Gillan document for non-routine management proposals in general, which suggests voting shareholders may view acquisition proposals less skeptically than they do other non-routine management proposals.[1]

Second, compared to most management proposals, the sheer complexity and volume of relevant information associated with large mergers make it unlikely that shareholders can easily perform a thorough analysis. Merger proxies for large acquisitions are often hundreds of pages long, representing an overwhelming amount of information for shareholders to process. Voting shareholders may rely primarily on biased management summaries, fairness opinions provided by management-selected investment banks, and in the case of institutional investors the recommendations of institutional shareholder advisory services (which tend to be in favor).

We examine 209 acquiring-firm merger proxy votes during 1990-2000. Our analysis contributes to the literature on corporate governance and mergers and acquisitions in two important ways. First, little is known about the factors that explain acquiring-firm shareholder support for mergers. We document the extent to which shareholder support is related to characteristics of the proposed combination and of the target and acquirer firms. Our analysis also documents the extent to which shareholder voting corresponds to stock market returns associated with a proposed merger's announcement and the returns preceding the vote itself.

Second, we explore the potential efficacy of merger votes in providing a check on managerial acquisition policy. The high mean shareholder approval rates in our sample (98% of votes cast and 73% of outstanding voting rights), as well as the absence of any failed votes in our sample, may lead one to question whether merger votes can in fact serve as effective monitoring devices. Note, however, that we do not observe voting outcomes on deals that management never formally proposes.

In other words, merger votes may serve to monitor managers *indirectly* if they provide an implied threat of a failed vote that would discipline managers with regards to the types of acquisitions they propose. If a proposed acquisition were defeated in a merger vote, this might be interpreted as indicating lack of confidence in management. A failed vote would presumably damage management's reputation, providing ammunition for any shareholders interested in replacing the management team.

We therefore argue that most managers prefer to propose acquisitions they believe will gain shareholder support (even if they require active campaigning). This would create a self-selection bias in samples of merger votes, and would help to explain the high approval rates we observe.

We investigate two predictions that, if supported, would suggest that merger votes serve as indirect, but effective monitoring devices. While the high approval rates we observe on average are consistent with a self-selection bias in the types of deals brought to a vote, management might sometimes overestimate the level of shareholder support a proposed deal will gain, which leads to our first prediction for our sample of approved merger votes. If there is a realistic risk that merger votes can fail, then despite high approval rates *on average* we should observe votes that pass by relatively narrow margins. Deals that are narrowly approved would support the idea that managers contemplating a merger should factor the likelihood of gaining shareholder support into their decision to propose the deal.

The second prediction is that if the risk of a failed vote is to have a beneficial effect on the types of deals managers propose, the risk of a failed vote should be meaningfully related to characteristics of the target, the acquirer, and the particular combination proposed. If the *ex*

[1]Votes on acquisitions are considered non-routine. See Bethel and Gillan (2002) for further discussion of routine versus non-routine votes.

ante risk of a failed vote is related to the ex post approval rate we observe, variation in approval rates should be significantly related to characteristics of the target, the acquirer, and the proposed combination. Such a finding would be consistent with studies showing that approval rates in other types of shareholder votes vary with firm and proposal characteristics (see Gordon and Pound, 1993; Gillan and Starks, 2000; Morgan and Poulsen, 2001; and Bethel and Gillan, 2002).

We find support for both these predictions, and conclude that merger votes do have monitoring potential despite higher average approval rates than for many other types of shareholder votes. We find that returns on the acquirer's stock at announcement and those between the announcement and the merger vote are positively related to shareholder support. We also document that voting shareholders consider other factors, such as the size of the target and whether the bid includes cash. Thus, the stock market's short-term assessment does not adequately capture all the factors shareholders consider.

Another finding is that apparently few shareholders are ever motivated to vote against mergers that are actually brought to a vote. Instead, those with negative views appear to either sell before the vote or not bother to vote at all. This may or may not adversely affect observed approval rates, depending on the type of vote required. We also document that for a variety of reasons including a deal's structure, merger votes can be required to pass either on the basis of voting rights or of votes cast. Shareholders with negative views who fail to vote will adversely affect the former but not the latter. When the vote is required to pass on the basis of votes cast, our evidence suggests that reaching the voting quorum required for a valid vote is the more significant hurdle.

I. Related Literature

We divide the literature into two categories: studies of returns for acquiring firms and examinations of proxy votes.

A. Returns for Acquiring Firms

Factors that affect acquirer stock returns should also presumably affect shareholder approval rates. The acquiring firm's announcement return, and its return between the announcement and the merger vote, should reflect a deal's desirability from the investor's point of view. Hence, we expect shareholder approval rates to be related to acquirer stock returns. Yet investors who sell their shares are not the same shareholders who remain on record for the merger vote. The two groups need not have *homogeneous* opinions about a proposed acquisition's desirability. The extent to which acquirer returns are related to shareholder approval rates and the extent to which factors that have been shown to affect acquirer returns can explain approval rates are empirical questions that we examine.

Several studies document the relation between acquirer returns and target firm characteristics. Maquieira et al. (1998) examine 260 stock-for-stock mergers over 1963-1995, and find that acquirer returns are weakly negative when the target operates in a different industry (i.e., when the merger is diversifying) and that returns are significantly positive when this is not the case. Morck, Shleifer, and Vishny (1990) and others also find lower bidder returns for diversifying acquisitions. Moeller, Schlingemann, and Stulz (2004), however, find weak evidence that conglomerate acquisitions have higher returns when the deal is all-equity. This finding may be relevant in our case because all our deals involve significant

stock consideration. Asquith, Bruner, and Mullins (1983) and others find that bidder returns increase with the relative size of the target.

Other studies investigate how acquirer returns vary with acquiring firm characteristics. Jensen (1986) proposes that managers of firms with high free cash flow are more likely to make value-destroying acquisitions. Lang, Stulz, and Walkling (1991) test this hypothesis using a sample of successful tender offers, and find that bidder returns are negatively related to the bidder's free cash flow when bidder firms have limited investment opportunities. Harford (1999) also examines the free cash flow theory and finds that acquisitions by cash-rich firms tend to destroy value.

The method of payment has also been shown to affect acquirer returns. Travlos (1987) and Harford (1999) find that stock financing results in lower acquirer returns than cash financing. Morck et. al. (1990) find that bidder returns are positively related to the bidder's prior performance.

While not all these studies report consistent findings (perhaps because of different sample periods and different types of acquisitions), they do provide motivation for some of the target and acquirer variables we include in our empirical analysis.

B. Proxy Votes

Another stream of literature examines proxy votes for various proposals sponsored by shareholders or management.[2] Morgan and Poulsen (2001) and Bethel and Gillan (2002) find shareholders are less likely to approve compensation-related management proposals that result in greater amounts of shareholder dilution. Gordon and Pound (1993) examine shareholder proposals and find that higher institutional ownership leads to higher approval rates for governance-related proposals. They also find that greater managerial ownership leads to lower approval rates (whatever the type of shareholder proposal). Gillan and Starks (2000) likewise find that approval rates for shareholder proposals increase with institutional ownership.

Gordon and Pound (1993) and Gillan and Starks (2000) report that approval rates are negatively related to the firm's prior stock market performance. When firm performance has been good, shareholders are more likely to give management the benefit of the doubt, and vote against shareholder proposals aimed at corporate reform. In our context, these results suggest investigating whether shareholder support for the merger proposed by management is stronger when recent performance has been good. Although none of the studies we have discussed examines *merger* proxy votes, they nonetheless provide motivation for some of factors we examine.

Bethel and Gillan (2002) provide arguments that support the notion that shareholder votes can serve as implicit, if not explicit, checks on management. They examine shareholder voting on management proposals, which may be classified as 'routine' or 'non-routine.' For routine proposals, brokers can vote shares they hold in street name as they desire when they are not given shareholder input on how to vote; they do not have such discretion for non-routine proposals. Bethel and Gillan argue that managers have incentives to "craft proposals so they are classified as routine, rather than non-routine to influence voting outcomes" (2002, p. 29). This line of reasoning suggests that managers should consider the possibility of a failed shareholder vote.

We note that managers do not have classification discretion for merger votes—these are necessarily classified as non-routine. What managers do control, however, is the type of stock-for-stock merger deals they put before shareholders for approval. We apply the basic

[2]Votes on shareholder-sponsored proposals are non-binding and advisory in nature, while those on management-sponsored proposals are binding. Thus, merger votes are binding.

reasoning in Bethel and Gillan (2002), and argue that managers contemplating an acquisition requiring shareholder approval should consider likely voting outcomes. Of course, this disciplining aspect of merger votes depends on whether managers have good reason to worry that very poor deals will fail to gain shareholder support.

II. Sample and Data

In this section, we discuss construction of our data and descriptive statistics.

A. Data Sources

We begin with a sample of merger proxy voting results for 359 acquisitions by public firms excluding utilities over 1990-2000. The source is the Investor Responsibility Research Center (IRRC). We eliminate 'clean-up' merger votes following tender offers, transactions associated with proxy contests, reorganizations, partial acquisitions, three-way mergers, votes in which acquirers consider the acquisition of more than one firm, and transactions that create tracking stock. These exclusions eliminate 53 observations. We also require that proxy materials be available with the needed stock return and certain accounting data for both parties, which excludes private firms and foreign corporations, reducing the sample further to 242 votes.

Voting results can be calculated either as a percentage of votes cast or as a percentage of voting rights outstanding, and IRRC reports only one method depending on what is required to pass for each deal. We search 10-Q filings and press release information for supplemental information needed to compile the alternative voting result not provided by IRRC, and exclude 20 observations for which we cannot calculate the voting result that IRRC does not provide (we discuss results for both types of approval rates). Finally, an additional 13 observations are eliminated because management has sufficient voting rights to make the vote a forgone conclusion. This yields a final sample of 209.

In our sample and in most other studies examining shareholder voting in different contexts, all the votes pass. As we have noted, we believe samples of merger votes tend to be deals more likely to be approved. We assume that understanding the factors explaining ex post approval rates for a sample of passed deals can help illuminate the factors explaining the *ex ante* likelihood that deals under consideration in general will gain shareholder approval.

For ease of exposition, we briefly define and motivate variables in the text as they are used but provide complete definitions in Appendix A. Unless otherwise noted, acquirer and target accounting variables are derived from the latest annual data available before a deal's announcement. These data are obtained from Compustat and SEC filings. Information on share ownership is obtained from SEC filings and Standard & Poor's stock guides. Stock return data are from the Center for Research in Security Prices (CRSP).

To ensure that outliers do not drive the results, given the relatively small sample, we winsorize all continuous independent variables at the top and bottom 5%. Dependent variables are well-behaved and are not winsorized.

B. Descriptive Statistics

Table I reports descriptive statistics for the sample. To obtain the approval required by the three major US stock exchanges, generally a majority of votes actually cast (excluding those cast as abstentions) must be in favor. Some mergers require a vote to pass by a majority of outstanding voting rights, which is more stringent, because votes that are not cast are

Table I. Descriptive Statistics

This table reports descriptive statistics for a sample of 209 acquiring-firm merger votes occurring between 1990 and 2000. Percentage requiring passage based on all voting rights is the percentage of deals that require a majority (or supermajority) of all voting rights cast in favor (instead of only a majority of the votes actually cast). Approval rate based on all voting rights is F / N where F = number of votes cast in favor of the merger, and N = total number of votes possible, given the number of voting rights outstanding. Approval rate based on non-abstention votes cast is $F / (V - A)$, where V = number of votes cast, and A = number of abstentions. Voter turnout is V / N, number of total votes cast (including votes cast as abstentions) divided by total number of votes possible. A-announcement return is the acquirer's excess holding-period stock return from day –2 to day 0 relative to the *Wall Street Journal* announcement date. T-announcement return is defined similarly for the target firm's stock. (Excess returns are calculated by subtracting the holding-period return of a daily rebalanced portfolio consisting of all the other firms in the same two-digit SIC class over the same period). A-assets and T-assets are the acquirer's and the target's book value of assets, respectively, at the latest fiscal year-end prior to the deal's announcement measured in 2000 dollars using the Producer Price Index. T-relative size is T-assets divided by A-assets. Dilution is the number of acquirer shares to be issued to target shareholders divided by the total number of shares expected to be outstanding after the merger is completed. A-managerial ownership is the percentage of the acquirer's voting rights owned by officers and directors (including affiliated holdings). A-institutional ownership is the percentage of the acquirer's stock owned by institutions prior to the deal's announcement. Percentage with mixed consideration is the percentage of deals where cash is used as a part of the consideration. Percentage within same industry is the percentage of deals where the acquirer and target share the same two-digit SIC code according to CRSP.

Variable	Mean	Median	Standard Deviation
Percentage requiring passage based on all voting rights	42.58%	n.a.	n.a.
Approval rate based on voting rights	73.23%	74.00%	8.00%
Approval rate based on non-abstention votes cast	97.96%	99.08%	3.05%
Voter turnout	74.70%	75.40%	7.72%
A-announcement return	-3.54%	-3.38%	6.95%
T-announcement return	14.32%	13.00%	13.43%
A-assets (in thousands of year 2000 dollars)	19,031	3,431	50,744
T-assets (in thousands of year 2000 dollars)	11,179	1,512	39,118
T-relative size	54.66%	38.60%	47.18%
Dilution	32.84%	30.87%	11.96%
A-managerial ownership	10.38%	8.48%	9.69%
A-institutional ownership	59.85%	61.35%	17.76%
Percentage with mixed consideration (i.e., also including cash)	8.13%	n.a.	n.a.
Percentage within same industry	55.02%	n.a.	n.a.

effectively votes against. As we detail in Appendix B, the type of vote required is determined by various factors including state laws, corporate charters, and the deal's structure. Table I reports that approximately 43% of the deals in our sample require approval based on voting rights outstanding.

The mean and median approval rates based on voting rights are 73% and 74%, respectively. The standard deviation of 8% shows there is considerable variation. The mean and median approval rates based on votes cast are much higher, at 98% and 99%, respectively, while the standard deviation is much lower (3%), suggesting this type of approval rate has considerably less variation.

The high average and relatively low standard deviation of the approval rate based on votes cast implies that in most cases, a high proportion of votes actually cast are voted in favor. We believe this is likely due to a combination of two factors. First, shareholders with the most negative views of the proposed acquisition, who are those most likely to vote against it, are also more likely to sell their shares prior to the record date for the vote. Second, there may be a coordination problem in that the remaining shareholders who have negative reactions view casting negative votes as futile (see Pound (1991) for a discussion of coordination problems in shareholder voting). Regardless of the reason, it appears that most shareholders who vote do so overwhelmingly in favor.

A valid merger proxy vote requires a quorum (which is set at 50% of outstanding voting rights). Merger votes thus impose two hurdles: a sufficiently high voter turnout to establish a voting quorum, and shareholder approval by a majority of either all voting rights or votes cast (depending on the requirement). When the shareholder vote is required to pass by a majority of voting rights, a quorum will automatically be reached for votes that pass. This is not the case when the vote is required to pass only out of the votes cast. In light of the very high approval rates out of votes cast we observe, obtaining the voter turnout necessary to establish a quorum may very well be the more critical hurdle.

As Table I shows, the mean voter turnout (the number of votes cast, whether in favor, as abstentions, or against, divided by the number of voting rights) is around 75% with a standard deviation of approximately 8%. These statistics are comparable to the mean and standard deviation of the approval rate based on all voting rights, which is not surprising if most shareholders indeed choose between voting in favor and not voting.

In results not reported in Table I, we examine the 120 deals where the vote is required to pass out of votes cast. In all 120 cases, the percentage of non-abstention votes cast in favor exceeds the voter turnout by at least 5.8% (for example, 95.2% of votes cast in favor compared to an 89.4% turnout). Furthermore, in all but four cases the percentage of votes cast in favor exceeds the turnout rate by at least 10.0%. Because the approval rate always exceeds the level of voter turnout, this supports our argument that when a vote is required to pass out of votes cast, reaching the voting quorum is the more meaningful hurdle.

On average, the stock market does not react favorably to the proposed acquisitions in our sample from the acquirer's perspective. The acquirer's mean three-day industry-adjusted announcement return (A-announcement return) is –3.54%. Although not reported in the table, 70% of the deals have negative three-day industry-adjusted announcement returns. This return (and the others we report) is calculated by computing the firm's holding-period return and subtracting from it the holding-period return on an industry portfolio (with daily rebalancing and excluding the sample firm) based on the firm's two-digit SIC industry, as defined by CRSP. If we instead adjust the return by the CRSP value-weighted index, the proportion of deals with negative returns is 67%.

How can it be that although 70% of the deals in our sample have negative industry-adjusted stock market reactions, all the deals in the sample are approved by acquirer shareholders (and with relatively high approval rates on average)? It is really not difficult to see how this can happen—negative stock price reactions occur in large part because investors with negative assessments of the deal sell (or short-sell) the firm's shares. Even if

many investors share negative views, they may prefer to sell rather than face uncertainty over whether shareholders (as a class) will vote to defeat the merger. Because selling investors do not vote—indeed they are replaced with buying investors who likely have more positive views—deals with negative announcement reactions can nonetheless pass with high approval rates.[3]

The average announcement reaction in the target firm's stock price is quite positive, as the mean three-day industry-adjusted announcement return (T-announcement return) is 14.32%. The targets in our sample deals tend to be large (relative to the acquirers), as mean and median relative sizes (in terms of assets) of the target are 55% and 39%, respectively. All the deals in the sample are financed at least partially with stock (i.e., the bid has a stock component). The mean dilution for acquiring shareholders, which we define as the number of acquirer shares to be issued divided by the total number of shares expected to be outstanding after the merger, is 33%.[4]

The literature has shown that stock ownership composition plays an important role in voting results. Management will obviously vote in favor of acquisitions it proposes, so approval rates will be affected by managerial ownership. In the sample we examine, management owns an average 10% of outstanding voting rights (this includes board holdings, affiliated voting rights held by family members, and holdings derived from ESOPs and stock option plans). Institutions own around 60% of outstanding shares on average.

Prior research also shows that acquiring-firm stock returns are affected by deal characteristics such as the method of financing and whether a merger is diversifying. Although all the deals in our sample involve stock financing, 8% also include cash consideration (and are thus coded as mixed consideration). 55% of the deals involve a target and an acquirer in the same two-digit SIC industry according to CRSP, leaving 45% as cross-industry acquisitions.

III. Predictions and Analysis

Jensen (1986) and Roll (1986), among others, suggest managers may often pursue acquisitions that are not necessarily in the interests of their shareholders. Presumably, merger votes (when triggered) can serve as a check on management's acquisition policy. That there are few failed merger votes, however, suggests that any monitoring function of merger votes is due to a credible threat that very poor deals run the risk of defeat. Such an implicit threat may cause managers to be more discriminating in the deals they propose.

Do merger votes provide credible threats? We test two empirical predictions that suggest this is the case.

A. Narrowly Approved Mergers

Despite high approval rates on average, some merger deals pass by relatively narrow margins. These may be deals that management aggressively pursued even when shareholder approval was uncertain, as was the case in the 2002 acquisition of Compaq Computer by Hewlett-Packard. Or, management may overestimate the degree of shareholder support.

[3]Furthermore, because merger announcements may send informative signals about the acquirer, we cannot assume that negative stock market reactions would necessarily be reversed should the merger vote fail. Consistent with this view, the literature documents that failed acquisition bids are associated with negative acquirer returns.

[4]Because our sample consists of deals in which the acquirer will increase its shares outstanding by at least 20% (hence triggering a shareholder vote to meet stock exchange requirements), it is not surprising to observe relatively high levels of dilution. This also explains why the relative target size is fairly large—only mergers with relatively large targets will necessitate the issuance of such high levels of additional acquirer stock.

We state the first empirical prediction as follows:

P1: A sample of passed merger votes should include deals that gain approval by relatively narrow margins.

Evidence against *P1* would not necessarily rule out the monitoring effect of merger votes. Managers might build in a safety margin in estimating the level of likely shareholder support. We believe that evidence in *support* of this prediction, however, would help confirm the possibility that merger votes provide credible threats.

If a vote is required to pass by a majority of voting rights, we expect the sample to include deals whose approval rate is less than 60%. While this is an arbitrary cutoff level, it is easy to imagine that votes passing with less than 60% approval could have turned on the voting decisions of a relatively few large shareholders.

For deals that require passage by a majority of votes cast, we do not expect to see approval rates of this type in the 50%-60% range, given the extremely high average approval rates of this type and the relatively low standard deviation. Because a voting quorum of 50% is needed for a valid vote, we focus more on the margin by which a quorum is established in deals requiring passage out of votes cast. We expect the sample to include deals where voter turnout (used to establish a quorum) is less than 60%.

In Table II, we report the lower tail of the distribution for both types of approval rates and for voter turnout. For completeness, we report statistics on all three metrics for the entire sample and for subsamples depending on the type of vote required.

When approval is required out of voting rights (Panel B), the key metric is the approval rate based on voting rights (Column 1). The fifth percentile level is 62.4%, but we do observe that the lowest four observations indicate approval rates of 55.6% or less. Hence, there are four observations with approval rates substantially lower than 60.0%; four deals are approved by relatively narrow margins.

When approval is required out of votes cast (Panel C), we observe the minimum for the appropriate approval rate (Column 2) is 80.0%, suggesting that all such votes passed easily. As we have noted, however, the more onerous hurdle for these votes may well be establishing the required 50% voting quorum, and we see that the 5th percentile for voter turnout (Column 3) is only 59.3%. There are, in fact, seven deals in the 120 reported in Panel C that have turnout rates lower than 60.0%. Thus, once we consider quorum requirements, these deals also gain approval by narrow margins.

We have argued that managers are less likely to propose deals they do not believe will gain shareholder approval. Nonetheless, in total there are 11 deals, or 5% of the total sample, where the approval rate (for deals required to pass out of voting rights) or the voter turnout (for deals required to pass out of votes cast and thus where turnout is more important) is lower than 60.0%. The sample does indeed include a material number of deals that narrowly gain approval, and we conclude that *P1* is supported.

B. Variation in Merger Approval Rates and Voter Turnout

Gordon and Pound (1993), Gillan and Starks (2000), Morgan and Poulsen (2001), and Bethel and Gillan (2002) find that shareholder voting results in other contexts vary with firm and proposal characteristics. Little is known, however, about how shareholders evaluate merger proposals and the extent to which approval varies with economically meaningful firm and deal characteristics. For merger votes to have any monitoring potential, gaining shareholder

Table II. Lower Tail of Distribution of Approval Rates and Voter Turnout

This table reports distribution details for the approval rate based on voting rights, the approval rate based on non-abstention votes cast, and the voter turnout for a sample of acquiring-firm merger votes occurring between 1990 and 2000. Approval rate based on all voting rights is F / N, where F = number of votes cast in favor of the merger, and N = total number of votes possible. Approval rate based on non-abstention votes cast is $F / (V - A)$, where V = number of votes cast and A = number of abstentions. Voter turnout is V / N, number of total votes cast (including votes cast as abstentions) divided by total number of votes possible.

	(1)	(2)	(3)
	Approval Rate Based on Voting Rights	Approval Based on Non-Abstention Votes Cast	Voter Turnout
Panel A. Entire Sample (n = 209)			
25th percentile	68.5%	97.6%	71.1%
10th percentile	62.4%	95.2%	64.1%
5th percentile	57.1%	90.8%	60.1%
5th lowest	54.7%	88.6%	56.8%
4th lowest	52.8%	86.4%	56.6%
3rd lowest	52.1%	85.8%	56.2%
2nd lowest	51.8%	81.4%	53.0%
Minimum	49.6%	80.0%	50.3%
Panel B. Mergers in which approval is based on voting rights (n = 89)			
25th percentile	70.6%	97.6%	73.2%
10th percentile	64.3%	95.2%	67.4%
5th percentile	62.4%	89.5%	62.8%
5th lowest	62.4%	89.5%	62.8%
4th lowest	55.6%	89.1%	61.0%
3rd lowest	55.4%	86.4%	57.1%
2nd lowest	54.6%	85.7%	56.8%
Minimum	52.1%	81.4%	56.2%
Panel C. Mergers in which approval is based on non-abstention votes cast (n = 120)			
25th percentile	66.8%	97.7%	70.7%
10th percentile	61.0%	95.2%	62.7%
5th percentile	56.4%	92.3%	59.3%
5th lowest	55.6%	90.8%	58.1%
4th lowest	55.4%	90.2%	56.8%
3rd lowest	52.8%	89.7%	56.7%
2nd lowest	51.8%	88.6%	53.0%
Minimum	49.6%	80.0%	50.3%

approval should be related to characteristics voters should consider when evaluating a proposed deal. Implicitly, this line of reasoning assumes that the *ex ante* probability a proposed deal gains shareholder approval on average increases with observed ex post approval rates.

We state the second empirical prediction as follows:

P2: The margin by which merger deals gain approval should be significantly related to economically meaningful firm and deal characteristics.

1. Approval Based on Voting Rights

Table III reports ordinary least squares regressions explaining the approval rate based on voting rights (number of votes in favor divided by number of voting rights). Model 1 includes the voting rights owned by management, board members, and their affiliates (A-managerial ownership) to control for automatic votes in favor. Not surprisingly, this variable is positive and highly significant (t = 3.91).

We also include institutional ownership of the acquirer's stock (A-institutional ownership). Many institutions have a fiduciary duty to vote their shares. Given that the votes in our sample pass and the earlier evidence suggesting shareholders who vote tend to vote in favor, it is not surprising to see that the approval rate increases with institutional ownership (t = 4.42).[5]

One corporate governance implication is that institutions may provide near-automatic support for proposed merger deals. Many institutions manage large portfolios and may simply not take the time for a thorough analysis. They may instead rely on management recommendations and those of institutional advisory services (which tend to be in favor).[6]

There are alternative possibilities with the opposite corporate governance implications, however. Managers of firms with high institutional ownership may be more discriminating in the deals they propose. Through their interactions with management, important institutional investors may sometimes have the opportunity to comment on potential deals in advance, further influencing which ones are formally proposed. For a convincing corporate governance interpretation, we would need to obtain and examine data on votes by individual institutions.[7]

Research has established that acquisition returns increase with the size of the target. The log-transformed size of the target (T-log(assets), defined in 2000 dollars), is positive and highly significant with a t-value of 4.51.

High free cash flow is sometimes argued to be indicative of agency problems, because it suggests management may be reluctant to return excess cash flow to shareholders. Acquisitions of targets with high levels of free cash flow may create more value if poor managers are replaced and excess cash is put to higher-valued use. Model 1 shows that the ratio of the target's free cash flow to its assets (T-free cash flow/assets) is positively and weakly significant (t = 1.90). We also try substituting the target's cash and marketable securities divided by its assets, but this variable is insignificant.

There is mixed evidence on the value effects of acquirer and target sharing the same industry. Morck et al. (1990), among others, find diversifying acquisitions destroy value, but Moeller et al. (2004) find evidence that diversifying acquisitions have higher acquirer returns in all-equity deals. We include an indicator variable set to one for acquisitions of targets in the same two-digit SIC industry (same industry), but this variable is insignificant.

Findings regarding the form of consideration are more consistent; authors such as Harford (1999) find acquirer returns are lower when stock financing is used. Because all our deals include stock financing, we include an indicator set to one if the consideration includes cash

[5]Our measure of institutional ownership is a noisy measure of the voting rights institutions actually own, since our metric (as in many studies) also includes shares that brokers hold in street name for individual investors. Brokers cannot vote these shares when their ultimate owners fail to provide voting instructions, because mergers are classified as non-routine proposals.

[6]Institutional Shareholder Services (ISS) was able to provide us with its recommendations for 95 of the deals in our sample. All recommendations were in favor.

[7]There is scant research on the role of institutional investors in monitoring acquirer firms. Pinkowitz (2003) analyzes the role of institutional investors in target firms that receive hostile tender offers. Although these investors do not actively monitor the targets, he argues that they facilitate hostile offers by collectively owning a block of shares not aligned with management.

Table III. Regressions Explaining Approval Rate Based on Voting Rights

This table reports OLS regressions predicting the acquirer shareholder approval rates based on voting rights for a sample of acquiring-firm merger votes occurring between 1990 and 2000. The dependent variable is the approval rate based on voting rights, defined as F / N, where F = number of votes cast in favor of the merger, and N = total number of votes possible. A-managerial ownership is the percentage of the voting rights owned by the acquiring firm's officers and directors (including affiliated holdings). A-institutional ownership is the percentage of the acquirer's stock owned by institutions prior to the deal's announcement. Accounting variables are based on book values measured at the latest fiscal year-end prior to the merger announcement date. T-log(assets) is the log of the target's assets in 2000 dollars using the Producer Price Index, T-free cash flow/assets is the target's operating income before depreciation minus total income taxes (less the change in deferred taxes from the prior to the current year) minus interest expense and preferred and common stock dividends, all divided by assets. Same industry is an indicator variable set to 1 if the acquirer and target share the same two-digit SIC code according to CRSP (and to 0 otherwise). Mixed consideration is an indicator variable set to 1 if cash is used as a part of the consideration (and to 0 for all-equity deals). Dilution is the number of acquirer shares to be issued to target shareholders divided by the total number of shares expected to be outstanding after the merger is completed. A-announcement return and T-announcement return are the excess holding-period returns from day –2 to day 0 relative to the *Wall Street Journal* announcement date for the acquirer and the target, respectively. Excess returns are calculated by subtracting the holding-period return of a daily rebalanced industry portfolio return (matched on two-digit SIC codes) from the sample firm's holding-period return. A-pre-vote return is the excess holding-period return from the first trading day following the end of the announcement period window to the day before the acquirer's merger proxy vote date. A-ROA is the acquirer's return on assets (operating income before depreciation and income taxes divided by assets). A-cash/assets is the acquirer's cash divided by assets. A-prior one-year return is the acquirer's excess holding from day –300 to day –50 relative to the *Wall Street Journal* announcement date. A-future ΔROA is the acquirer's return on assets (operating income before depreciation and income taxes divided by assets) measured at the end of the first complete fiscal year after the merger vote minus the acquirer's ROA at the last fiscal year-end prior to the merger's announcement date. Voter turnout is V / N, number of total votes cast (including votes cast as abstentions) divided by total number of votes possible.

Model	(1)	(2)	(3)	(4)	(5)
Constant	0.514 (13.27)**	0.547 (15.86)**	0.563 (11.97)**	0.581 (14.20)**	0.054 (1.88)*
A-managerial ownership	0.214 (3.91)**	0.241 (5.04)**	0.211 (3.83)**	0.245 (5.21)**	0.066 (3.66)**
A-institutional ownership	0.154 (4.42)**	0.155 (5.01)**	0.156 (4.34)**	0.162 (5.49)**	0.022 (1.66)*
T-log(assets)	0.015 (4.51)**	0.012 (4.14)**	0.010 (2.37)**	0.008 (2.16)**	0.002 (1.56)
T-free cash flow/assets	0.162 (1.90)*	0.107 (1.36)	0.053 (0.52)	-0.049 (-0.55)	-0.021 (-0.53)
Same industry	0.012 (1.21)	0.011 (1.25)	0.017 (1.71)*	0.016 (1.75)*	0.005 (1.29)
Mixed consideration	0.062 (3.29)**	0.058 (3.46)**	0.054 (2.87)**	0.055 (3.32)**	-0.002 (-0.33)

Heteroskedastic t-ratios are in parentheses, and * and ** denote two-tailed significance at the 90% and 95% confidence levels.

Table III. Regressions Explaining Approval Rate Based on Voting Rights (*Continued*)

Model	(1)	(2)	(3)	(4)	(5)
Dilution	-0.078	-0.071	-0.081	-0.046	-0.022
	(-1.76)*	(-1.65)	(-1.80)*	(-1.06)	(-1.39)
A-announcement return	-	0.395	-	0.400	0.106
	-	(5.25)**	-	(5.36)**	(3.52)**
A-pre-vote return	-	0.051	-	0.058	0.031
	-	(1.84)*	-	(2.02)**	(2.38)**
T-announcement return	-	-0.002	-	0.008	-0.001
	-	(-0.06)	-	(0.25)	(-0.03)
A-ROA	-	-	0.041	0.074	0.078
	-	-	(0.50)	(0.98)	(1.78)*
A-cash/assets	-	-	-0.083	-0.069	-0.001
	-	-	(-2.01)**	(-1.83)*	(-0.04)
A-prior one-year return	-	-	-0.002	0.009	0.004
	-	-	(-0.15)	(0.81)	(0.68)
A-future ΔROA	-	-	-	0.248	0.146
	-	-	-	(2.06)**	(2.42)**
Voter turnout	-	-	-	-	0.859
	-	-	-	-	(19.84)**
Observations	209	209	197	191	191
Adj. R-squared	0.258	0.370	0.261	0.386	0.885

Heteroskedastic t-ratios are in parentheses, and * and ** denote two-tailed significance at the 90% and 95% confidence levels.

(mixed consideration). The mere 17 deals thus coded have higher shareholder approval rates (t = 3.29) as the evidence on acquirer returns would predict.

The dilution variable measures the extent to which acquirer shareholders will be diluted. Morgan and Poulsen (2001) and Bethel and Gillan (2002) find lower shareholder support for compensation-related management proposals that result in high dilution. We find weak evidence that dilution levels are negatively related to shareholder approval (t = –1.76).

Model 2 includes the acquirer's excess holding-period return around the deal's announcement in the *Wall Street Journal* (A-announcement return). We first calculate the firm's three-day holding period return from –2 to 0 trading days relative to the announcement date, and then subtract the holding-period return on a daily rebalanced portfolio return for other firms in the same two-digit SIC industry. (The results reported are robust to subtracting the return on the CRSP value-weighted index instead). We also include the acquirer's excess holding-period return between the announcement and the day before the merger vote (A-pre-vote return).

The acquirer's returns can be interpreted as summary statistics for the market's estimation of the desirability of the acquisition. If shareholders of record for the vote share the same

views on the proposed merger as stock market investors, approval rates should increase with acquirer returns. To the extent that acquirer returns serve to proxy for target characteristics, we should also see the significant firm and deal characteristics in Model 1 become less significant.

Model 2 indicates that A-announcement return and A-pre-vote return are both positive and significant as we expect, with t-values of 5.25 and 1.84, respectively. Because the significant variables from Model 1 also retain most of their significance, this suggests that the acquirer returns do not serve as particularly good summary statistics for the significant factors in Model 1.

In results not reported in the table, we use two-stage least squares analysis to control for the possibility that A-announcement return and A-pre-vote return are partially endogenous—the signs and significance of the explanatory variables (including the returns) are qualitatively similar.[8] We conclude that voting shareholders clearly consider factors beyond the stock market's short-term assessment of the deal (as measured by the acquirer's stock returns).

Model 2 also includes the target's announcement return (T-announcement return) to see whether shareholder support is lower when the stock market perceives that target shareholders are receiving an overly generous bid premium. The coefficient is negative, but not significant.

Model 3 adds three acquiring firm characteristics to the specification in Model 1. The first two are the acquirer's return on assets (A-ROA) and cash divided by assets (A-cash/assets), both measured using the last annual report prior to the deal's announcement. The third is the excess holding-period return on the firm's stock from 300 to 50 trading days prior to the announcement (we exclude the 49 days immediately before the deal announcement to mitigate contamination due to information leakage about the deal).

We add these variables for several reasons. Large mergers such as the ones we examine are exceedingly complex, and many shareholders may not have the time or ability to perform a thorough analysis. The acquiring firm's management has an information advantage and has recommended voting in favor, but shareholders may be skeptical of the recommendation if managers have done a poor job of running the firm or if there are perceived agency problems. In other words, shareholder support for a proposed acquisition may be affected by shareholder confidence in the management team.

Better recent operating and stock performance might enhance shareholder confidence, but higher stockpiles of cash could raise suspicions that management is making a value-destroying acquisition. Harford (1999) shows that acquisitions by cash-rich firms destroy more value than those by cash-poor firms, because acquisitions provide a way for firms to waste cash as argued in Jensen (1986).[9]

The predictions, therefore, are that A-ROA and A-prior one-year return will be positively related to the merger approval rate, and that A-cash/assets will be negatively related.

The observations in Model 3 drop to 197 due to missing data. As the model shows, A-cash/assets is negative with the hypothesized sign (t = –2.01). The other two new variables are insignificant. These results hold even if we try each variable one at a time.

In untabulated results, we replace A-cash/assets with A-free cash flow/assets, but the variable is insignificant. We also try including an interaction term between A-free cash flow/

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[8]Acquirer returns may not be completely exogenous because returns should incorporate expectations about the voting outcome. However, investors will be primarily concerned only with whether the vote passes, instead of the actual *level* of shareholder approval. This reduces the degree of endogeneity because stock market investors will know that a very high percent of proposed mergers gain shareholder approval.

[9]Although most of our sample deals are all-equity bids, these acquisitions may still provide acquiring-firm managers a way to spend cash such as through changes in business strategies, new capital investments, or increases in working capital.

assets and an indicator variable set to one for acquirers with below-median market-to-book ratios, because Lang, Stulz, and Walkling (1991) find an interactive effect between the bidder's free cash flow and its growth opportunities in their study of acquirer returns. We define market-to-book as the firm's book value of assets minus the book value of equity plus the market value of equity, all divided by the firm's book value of assets. This interaction term is also insignificant—it appears that voting shareholders react more negatively to cash stockpiles than to free cash flow.

We also explore how shareholders react when 'cash-rich' firms acquire targets with high growth opportunities in untabulated results. Shareholders may view such deals positively if they perceive a valuable synergy is created, or negatively if they perceive the acquirer to be wasting cash by acquiring high-growth, capital-intensive targets. To investigate, we add the target firm's market-to-book ratio (as defined above) and also an interaction variable between A-cash/assets and the target's market-to-book ratio.

Both the market-to-book ratio and the interaction term are insignificant, even when we use indicator variables for whether the market-to-book ratio is above the sample median instead of a continuous market-to-book variable. This also holds if we try the target's price-to-earnings rather than market-to-book ratio.

Interestingly, however, if we repeat this exercise using the target's market-to-book value of *equity* (the market value of equity divided by the book value of equity) instead of the total market-to-book ratio (which includes debt), there is weak evidence that shareholders have negative views of acquisitions of high-growth firms by cash-rich firms. The t-value on the interaction term between A-cash/assets and the target's market-to-book value of equity is –1.82, similar to the t-value of –1.87 if we use an indicator variable for above-median market-to-book value of equity instead of the continuous version.

Overall, we conclude that while shareholder support is not affected by recent operating or stock market performance, shareholders do seem to be more skeptical of acquisitions by cash-rich firms. There is also weak evidence that shareholders are less enthusiastic about cash-rich firms acquiring targets with high market-to-book ratios (which we take to measure growth opportunities), depending on the definition of market-to-book value. We also note that in this model the same-industry indicator is weakly significant (t = 1.71).

Model 4 includes all the variables in Model 2 and Model 3, plus the change in the acquirer's return on assets measured from the latest pre-announcement date available to the end of the first complete fiscal year that begins after the merger (A-future DROA). A-future DROA serves as an ex post proxy for *ex ante* expectations about how a proposed deal will affect operating performance. If shareholders expect the merger to improve operating performance, they should be more likely to vote in favor.

For the most part the results are consistent with the others, although the dilution variable is no longer significant. A-future DROA is positive and significant as predicted (t = 2.06). The adjusted R-squared in this model is 0.386, which implies that a substantial portion of the approval rate as a percentage of voting rights is explained collectively by firm and deal characteristics, consistent with *P2*.

In untabulated results, we reestimate Model 4 adding an indicator variable set to one if the vote is required to pass as a percentage of voting rights (rather than only votes cast). The indicator is positive and significant (t = 2.69), and all the significant variables in Model 4 reported in Table III retain similar levels of significance.

The significance of the type of vote indicator might imply managers campaign more aggressively to 'turn out the vote' when this type of approval is required. Its positive significance may also be the result of a self-selection bias, because of partial endogeneity.

As we discuss in Appendix B, the type of vote required can depend on how management structures a proposed deal. If managers expect a high degree of shareholder support, they may be less concerned with whether a vote is required to pass only out of votes cast.

Another re-estimation of Model 4 uses only the sample of deals required to be passed only out of voting rights (results not tabulated), and the sample size drops to 84. Despite the reduced power, five variables that are significant in the Model 4 results in Table III remain positive and significant in the new estimation: A-managerial ownership (t = 4.15), A-institutional ownership (t = 3.42), mixed consideration (t = 2.41), A-announcement return (t = 3.65), and A-future DROA (t = 3.44). A-ROA is also positive and significant (t = 1.90), and the adjusted R-squared for the model is 0.346.

A final re-estimation of Model 4 tests whether cash-rich acquirers that acquire high market-to-book targets elicit lower approval rates. For the target's total market-to-book ratio (which includes debt), the results are insignificant. For the market-to-book value of *equity,* the interaction term between A-cash/assets and the target's market-to-book is significantly negative (t = –2.69). Overall, the results of various versions of Model 4 continue to support *P2* in that approval rates are related to firm and deal characteristics.

Model 5 adds voter turnout to all the other variables. Voter turnout is highly significant (t = 19.84), and the adjusted R-squared increases to 0.885. A very high portion of the variation in the approval rate is explained once voter turnout is included, consistent with our conclusion that most shareholders who vote do so in favor.

Only a very small number of shareholders are motivated either to vote against or to abstain. The mean and median voting rights voted against the mergers in our sample are 1.5% and 0.7%, respectively (not reported in a table). The mean and median voting rights recorded as abstentions are even lower, at 0.6% and 0.3%, respectively. Of course, shareholders can express their disapproval simply by failing to vote, which will adversely affect the approval rate based on voting rights.

Beyond voter turnout, other factors have significant explanatory power. These include A-managerial ownership (t = 3.66), A-institutional ownership (t = 1.66), A-announcement return (t = 3.52), A-pre-vote return (t = 2.38), A-ROA (t = 1.78), and A-future DROA (t = 2.42). It is interesting that only after controlling for voter turnout does A-ROA become (weakly) significant. Conditional on voter turnout, shareholders do seem to consider the acquirer's recent operating performance.

Once shareholders have decided whether or not to vote, however, they do not seem to consider the acquirer's cash position, because conditional on voter turnout A-cash/assets is no longer significant. Other variables that lose significance include T-log(assets), same industry, and mixed consideration. These variables, which are significant in Model 4, seem to affect whether many shareholders decide to vote in favor or fail to vote altogether. Conditional on voter turnout, they have little marginal effect on merger approval rates.

2. Approval Based on Votes Cast

Table IV presents regression results explaining the approval rate based on votes cast (and excluding votes to abstain). That is, voting rights not voted do not count against the merger, nor do votes cast to abstain; the approval is based on the number voting for the merger versus the number voting against. In this case, we would not expect firm and deal characteristics to have nearly as much explanatory power as in Table III. The adjusted R-squared ranges from 0.013 in Model 1 to 0.093 in Model 5, considerably lower than the values shown in Table III.

A-managerial ownership and A-institutional ownership are positive and significant except

Table IV. Regressions Explaining Approval Rate Based on Non-Abstention Votes Cast

This table reports OLS regressions predicting the acquirer shareholder approval rates based on non-abstention votes cast for a sample of acquiring-firm merger votes occurring between 1990 and 2000. The dependent variable is the approval rate based on votes cast, defined as $F / (V - A)$ where V = the number of votes cast and A = the number of abstentions. A-managerial ownership is the percentage of the voting rights owned by the acquiring firm's officers and directors (including affiliated holdings). A-institutional ownership is the percentage of the acquirer's stock owned by institutions prior to the deal's announcement. Accounting variables are based on book values measured at the latest fiscal year-end prior to the merger announcement date. T-log(assets) is the log of the target's assets in 2000 dollars using the Producer Price Index, T-free cash flow/assets is the target's operating income before depreciation minus total income taxes (less the change in deferred taxes from the prior to the current year) minus interest expense and preferred and common stock dividends, all divided by assets. Same industry is an indicator variable set to 1 if the acquirer and target share the same two-digit SIC code according to CRSP (and to 0 otherwise). Mixed consideration is an indicator variable set to 1 if cash is used as a part of the consideration (and to 0 for all-equity deals). Dilution is the number of acquirer shares to be issued to target shareholders divided by the total number of shares expected to be outstanding after the merger is completed. A-announcement return and T-announcement return are the excess holding-period returns from day –2 to day 0 relative to the *Wall Street Journal* announcement date for the acquirer and the target, respectively. Excess returns are calculated by subtracting the holding-period return of a daily rebalanced industry portfolio return (matched on two-digit SIC codes) from the sample firm's holding-period return. A-pre-vote return is the excess holding-period return from the first trading day following the end of the announcement period window to the day before the acquirer's merger proxy vote date. A-ROA is the acquirer's return on assets (operating income before depreciation and income taxes divided by assets). A-cash/assets is the acquirer's cash divided by assets. A-prior one-year return is the acquirer's excess holding from day –300 to day –50 relative to the *Wall Street Journal* announcement date. A-future ΔROA is the acquirer's return on assets (operating income before depreciation and income taxes divided by assets) measured at the end of the first complete fiscal year after the merger vote minus the acquirer's ROA at the last fiscal year-end prior to the merger's announcement date. Voter turnout is V / N, number of total votes cast (including votes cast as abstentions) divided by total number of votes possible.

Model	(1)	(2)	(3)	(4)	(5)
Constant	0.961 (91.43)**	0.967 (93.20)**	0.951 (63.76)**	0.956 (64.06)**	0.991 (38.31)**
A-managerial ownership	0.027 (1.71)*	0.031 (1.86)*	0.028 (1.69)*	0.039 (2.28)**	0.051 (2.83)**
A-institutional ownership	0.026 (2.19)**	0.027 (2.34)**	0.023 (1.79)*	0.021 (1.50)	0.030 (2.29)**
T-log(assets)	0.001 (0.93)	0.000 (0.25)	0.002 (1.24)	0.001 (0.93)	0.002 (1.14)
T-free cash flow/assets	0.030 (1.37)	0.011 (0.52)	0.056 (1.79)*	0.024 (0.69)	0.022 (0.64)
Same industry	0.004 (0.98)	0.004 (1.00)	0.005 (1.18)	0.005 (1.02)	0.005 (1.16)
Mixed consideration	-0.005 (-0.98)	-0.006 (-1.39)	-0.005 (-1.00)	-0.005 (-1.10)	-0.002 (-0.30)

Heteroskedastic t-ratios are in parentheses, and * and ** denote two-tailed significance at the 90% and 95% confidence levels.

Table IV. Regressions Explaining Approval Rate Based on Non-Abstention Votes Cast (*Continued*)

Model	(1)	(2)	(3)	(4)	(5)
Dilution	-0.032	-0.026	-0.032	-0.024	-0.026
	(-1.56)	(-1.38)	(-1.64)	(-1.32)	(-1.42)
A-announcement return	-	0.088	-	0.116	0.136
	-	(2.90)**	-	(3.56)**	(3.85)**
A-pre-vote return	-	0.020	-	0.014	0.016
	-	(2.12)**	-	(1.59)	(1.71)*
T-announcement return	-	0.013	-	0.001	0.001
	-	(0.91)	-	(0.04)	(0.08)
A-ROA	-	-	0.004	0.024	0.024
	-	-	(0.12)	(0.56)	(0.56)
A-cash/assets	-	-	0.029	0.038	0.033
	-	-	(2.27)**	(2.66)**	(2.45)**
A-prior one-year return	-	-	0.003	0.006	0.007
	-	-	(0.36)	(0.81)	(0.86)
A-future ΔROA	-	-	-	0.090	0.097
	-	-	-	(1.32)	(1.41)
Voter turnout	-	-	-	-	-0.056
	-	-	-	-	(-1.63)
Observations	209	209	197	191	191
Adj. R-squared	0.013	0.054	0.026	0.084	0.093

Heteroskedastic t-ratios are in parentheses, and * and ** denote two-tailed significance at the 90% and 95% confidence levels.

for in Model 4 where A-institutional ownership is insignificant. The acquirer's announcement return (A-announcement return) is positive and significant (t-values range from 2.90 in Model 3 to 3.85 in Model 5), and its return between the announcement and vote date (A-pre-vote return) is positive and inconsistently significant (t-values range from 1.59 in Model 4 to 2.12 in Model 2). Interestingly, the acquirer's cash position, which is significantly negative in two models in Table III, flips signs in Table IV and is positive, with t-values ranging from 2.27 in Model 3 to 2.66 in Model 4. All other variables, including voter turnout, are insignificant.

In untabulated results, we also test for interactive effects between A-cash/assets and the target's market-to-book ratio, but the interaction terms are insignificant. It thus appears there is some evidence that acquisitions of high-growth firms by cash-rich acquirers result in lower voter turnout, but that conditional on voter turnout the approval rates are not significantly different in such cases. This is because there is weak evidence that acquisitions of high-growth targets by cash-rich firms adversely affect approval rates based on all voting rights (Table III), but not based on votes cast (Table IV).

Finally, if we limit the sample to the 120 deals requiring the merger to pass out of votes

cast, only A-institutional ownership and A-announcement return are significant. That fewer variables are significant could be due primarily to a smaller sample size.

Overall, the factors we examine are much less successful in explaining approval rates based on votes cast. This is consistent with a conclusion that most shareholders who are not in favor of the merger simply do not vote, perhaps due to feeling atomistic.

3. Establishing a Quorum: Voter Turnout

We have argued that establishing a quorum—at least 50% of voting rights casting a vote—is the more difficult hurdle when a vote is required to pass out of votes cast. Table V presents regression results explaining voter turnout. The first four models match the specifications shown in Tables III and IV, and the results are somewhat similar to those in Table III. The adjusted R-squared statistics in these models are in the 20%-30% range, similar to or slightly lower than those observed in the Table III models. In Models 1 through 4, A-managerial ownership, A-institutional ownership, T-log(assets), mixed consideration, and A-announcement return are consistently significant, with the same signs and general significance levels as in Table III. In Table V, however, A-pre-vote return and A-future DROA are not significant.

Model 5 adds an indicator set to one if a supermajority vote is required. While the variable is positive and significant, its interpretation is unclear. It could be the result of more active campaigning by managers to turn out a vote in favor of a deal when a higher approval rate will be required. It might also occur because of a self-selection bias; managers may be more discriminating in the deals they formally propose when a vote must pass by a supermajority. Only six deals have supermajority voting requirements, making us hesitant to read too much into the results.

In untabulated results, we re-estimate Model 4 using only the deals required to pass by a majority of non-abstention votes cast and hence when establishing a voting quorum is the more onerous requirement.[10] All the variables significant in the reported Model 4 results remain significant (with the same sign). In addition, dilution is significantly negative ($t = -2.98$), A-pre-vote return is significantly positive ($t = 1.90$), and A-cash/assets is significantly negative ($t = -2.54$). The adjusted R-squared statistic is 0.416, implying a substantial portion of the variation in voter turnout is explained.

It seems clear that several firm and deal characteristics explain a significant portion of the variation in turnout rates, as is the case for approval rates based on voting rights. This is particularly true in the deals that must be approved based only on votes cast (instead of voting rights), precisely the deals where reaching a voting quorum appears to be the most critical hurdle. We thus conclude that the data support the proposition that merger approval rates are significantly related to economically meaningful firm and deal characteristics.

IV. Conclusion

It is rare that acquiring-firm shareholders vote against proposed mergers. While over two-thirds of the acquirers in 209 merger proxy votes held during 1990-2000 had negative announcement returns, mergers were approved by an average of 73% based on voting rights and 98% based on votes cast. These high approval rates may be caused by a selection bias where managers are reluctant to propose deals less likely to gain shareholder approval. To investigate this possibility, we examine the distribution of voting results and the relationship

[10]Re-estimating Model 5 is not possible, because none of these deals have a supermajority voting requirement (i.e., the model is not full rank).

Table V. Regressions Explaining Voter Turnout Rate

This table reports OLS regressions predicting the acquirer shareholder turnout for a sample of acquiring-firm merger votes occurring between 1990 and 2000. The dependent variable is the voter turnout, defined as V / N where V = number of votes cast and N = total number of votes possible based on the number of voting rights outstanding. A-managerial ownership is the percentage of the voting rights owned by the acquiring firm's officers and directors (including affiliated holdings). A-institutional ownership is the percentage of the acquirer's stock owned by institutions prior to the deal's announcement. Accounting variables are based on book values measured at the latest fiscal year-end prior to the merger announcement date. T-log(assets) is the log of the target's assets in 2000 dollars using the Producer Price Index, T-free cash flow/assets is the target's operating income before depreciation minus total income taxes (less the change in deferred taxes from the prior to the current year) minus interest expense and preferred and common stock dividends, all divided by assets. Same industry is an indicator variable set to 1 if the acquirer and target share the same two-digit SIC code according to CRSP (and to 0 otherwise). Mixed consideration is an indicator variable set to 1 if cash is used as a part of the consideration (and to 0 for all-equity deals). Dilution is the number of acquirer shares to be issued to target shareholders divided by the total number of shares expected to be outstanding after the merger is completed. A-announcement return and T-announcement return are the excess holding-period returns from day –2 to day 0 relative to the *Wall Street Journal* announcement date for the acquirer and the target, respectively. Excess returns are calculated by subtracting the holding-period return of a daily rebalanced industry portfolio return (matched on two-digit SIC codes) from the sample firm's holding-period return. A-pre-vote return is the excess holding-period return from the first trading day following the end of the announcement period window to the day before the acquirer's merger proxy vote date. A-ROA is the acquirer's return on assets (operating income before depreciation and income taxes divided by assets). A-cash/assets is the acquirer's cash divided by assets. A-prior one-year return is the acquirer's excess holding from day –300 to day –50 relative to the *Wall Street Journal* announcement date. A-future ΔROA is the acquirer's return on assets (operating income before depreciation and income taxes divided by assets) measured at the end of the first complete fiscal year after the merger vote minus the acquirer's ROA at the last fiscal year-end prior to the merger's announcement date. Voter turnout is V / N, number of total votes cast (including votes cast as abstentions) divided by total number of votes possible.

Model	(1)	(2)	(3)	(4)	(5)
Constant	0.539 (13.92)**	0.569 (15.86)**	0.597 (12.84)**	0.613 (14.50)**	0.605 (14.39)**
A-managerial ownership	0.188 (3.42)**	0.214 (4.33)**	0.185 (3.43)**	0.209 (4.25)**	0.202 (4.01)**
A-institutional ownership	0.148 (4.35)**	0.147 (4.83)**	0.156 (4.44)**	0.163 (5.43)**	0.159 (5.35)**
T-log(assets)	0.014 (4.41)**	0.012 (4.10)**	0.009 (2.09)**	0.006 (1.77)*	0.007 (1.89)*
T-free cash flow/assets	0.150 (1.76)*	0.114 (1.40)	0.037 (0.34)	-0.032 (-0.30)	-0.070 (-0.76)
Same industry	0.009 (0.94)	0.008 (0.92)	0.013 (1.28)	0.012 (1.28)	0.017 (1.81)*
Mixed consideration	0.072 (3.68)**	0.070 (3.85)**	0.065 (3.35)**	0.067 (3.74)**	0.069 (3.88)**

Heteroskedastic t-ratios are in parentheses, and * and ** denote two-tailed significance at the 90% and 95% confidence levels.

Table V. Regressions Explaining Voter Turnout Rate (*Continued*)

Model	(1)	(2)	(3)	(4)	(5)
Dilution	-0.055	-0.055	-0.055	-0.028	-0.030
	(-1.28)	(-1.31)	(-1.24)	(-0.62)	(-0.67)
A-announcement return	-	0.349	-	0.342	0.334
	-	(4.56)**	-	(4.19)**	(4.24)**
A-pre-vote return	-	0.021	-	0.032	0.030
	-	(0.75)	-	(1.05)	(1.00)
T-announcement return	-	-0.013	-	0.010	0.012
	-	(-0.41)	-	(0.28)	(0.37)
A-ROA	-	-	-0.010	-0.004	0.056
	-	-	(-0.11)	(-0.04)	(0.70)
A-cash/assets	-	-	-0.092	-0.079	-0.091
	-	-	(-1.80)*	(-1.52)	(-2.14)**
A-prior one-year return	-	-	-0.004	0.005	0.010
	-	-	(-0.40)	(0.48)	(0.92)
A-future ΔROA	-	-	-	0.119	0.129
	-	-	-	(0.89)	(1.01)
Supermajority vote turnout	-	-	-	-	0.087
	-	-	-	-	(2.83)**
Observations	209	209	197	191	191
Adj. R-squared	0.248	0.329	0.232	0.322	0.357

Heteroskedastic t-ratios are in parentheses, and * and ** denote two-tailed significance at the 90% and 95% confidence levels.

of firm and deal characteristics that should be important to shareholders.

The evidence is consistent with two predictions that we believe indicate managers are selective in proposing mergers. First, despite high approval rates *on average,* not all deals escape shareholder scrutiny—at least 5% of the deals in the sample appear to gain approval by a relatively narrow margin. Second, the margins of approval vary substantially with economically meaningful firm and deal characteristics. For deals requiring approval based on votes cast (instead of voting rights), the evidence suggests that achieving a voting quorum is a more rigorous requirement than having the vote pass. This is because shareholders with negative views typically fail to vote altogether rather than cast a negative vote.

We do not mean to imply that merger votes are any more effective than other corporate governance mechanisms, as clearly many value-destroying acquisitions gain shareholder approval. Managers have a powerful platform to promote the deals they propose, and many shareholders may not put in the time for a thorough analysis. Yet a lack of perceived shareholder support likely works to deter many deals managers might otherwise consider. Deals with poor acquirer returns are sometimes approved, but the evidence we develop is consistent with a conclusion that merger votes provide a credible threat.■

Appendix A.

Variable Category & Name	Description	Source
Acquirer-Specific Variables		
A-announcement return	Excess holding period return from day –2 to day 0 relative to the *Wall Street Journal* announcement date, defined as the holding-period return of the stock minus the holding-period return of a daily rebalanced portfolio consisting of all other firms in the same two-digit SIC code for the same period	CRSP
A-assets	Book value of total assets at the last fiscal year-end prior to announcement of the deal measured in 2000 dollars using the Producer Price Index	Compustat or SEC filings
A-cash/assets	Cash and marketable securities divided by the book value of assets	Compustat or SEC filings
A-free cash flow / assets	EBITDA minus total income taxes (less the change in deferred taxes from the prior to the current year) minus preferred and common stock dividends and interest expenses, all divided by the book value of assets	Compustat or SEC filings
A-future ΔROA	Return on assets (EBITDA divided by assets) measured at the end of the first complete fiscal year after the merger vote minus the acquirer's ROA at the last fiscal year-end prior to the merger's announcement date	Compustat or SEC filings
A-institutional ownership	Portion of the acquirer's stock owned by institutions prior to the deal's announcement	S&P stock guides
A-managerial ownership	Portion of voting rights owned by officers and directors (including affiliated holdings, those by family members, and incentive plans) immediately prior to the vote	SEC filings
A-pre-vote return	Excess holding-period return from the first post-announcement trading day to the day before the acquirer's merger vote date, defined as the holding-period return of the stock minus the holding-period return of a daily rebalanced portfolio consisting of all other firms in the same two-digit SIC code for the same period	CRSP
A-prior one-year return	Excess holding period return from day –300 to day –50 relative to the *Wall Street Journal* announcement date, defined as the holding-period return of the stock minus the holding-period return of a daily rebalanced portfolio consisting of all other firms in the same two-digit SIC code for the same period	CRSP
A-ROA	EBITDA divided by total assets at the last fiscal year-end prior to the merger's announcement date	Compustat or SEC filings

Appendix A. (*Continued*)

Variable Category & Name	Description	Source
Target-Specific Variables		
T-announcement return	Excess holding-period return from day –2 to day 0 relative to the *Wall Street Journal* announcement date, defined as the holding-period return of the stock minus the holding-period return of a daily rebalanced portfolio consisting of all other firms in the same two-digit CRSP SIC code for the same period	CRSP
T-assets	Book value of total assets at the latest fiscal year-end prior to the announcement of the deal measured in 2000 dollars using the Producer Price Index	Compustat or SEC filings
T-free cash flow / assets	EBITDA minus total income taxes (less the change in deferred taxes from the prior to the current year) minus preferred and common stock dividends and interest expenses, all divided by the book value of assets	Compustat or SEC filings
T-log(assets)	Log of the target firm's assets measured at the last fiscal year-end prior to announcement of the deal	Compustat or SEC filings
T-relative size	Target's book value of assets divided by the acquiring firm's book value of assets (for the fiscal year prior to the deal's announcement)	Compustat or SEC filings
Other Variables		
All rights approval required	Indicator variable set to one if the approval requirement for passage of the merger is based on voting rights and to zero if it is based on votes cast	SEC filings
Approval rate based on voting rights	Number of votes cast in favor of the merger divided by the total number of votes possible based on all voting rights	IRRC and SEC filings
Approval rate based on votes cast	Number of votes cast in favor of the merger divided by the sum of the number of votes cast in favor and the number of the votes cast against (i.e., excluding abstentions)	IRRC and SEC filings
Dilution	Shares to be issued to the target shareholders divided by number of shares expected to be outstanding following completion of the merger	SEC filings
Mixed consideration	Indicator variable set to one if part of the consideration is to be paid in cash and zero otherwise	SEC filings
Same industry	Indicator variable set to one if the acquirer and target share the same two-digit CRSP SIC code and zero otherwise	CRSP
Supermajority vote	Indicator variable set to one if the required passage in the merger vote exceeds 50% and zero otherwise	SEC filings
Voter turnout	Total number of votes cast divided by total number of votes possible	IRRC and SEC filings

Appendix B. Detail on Voting Requirements

An approval rate can be calculated based on either all voting rights (i.e., all potential votes) or based on votes cast. Stock exchange rules for the New York Stock Exchange, the American Stock Exchange, and Nasdaq specify that the *minimum* vote be held out of votes cast.[11] Firm charters and state laws of incorporation, however, can impose the stricter requirement of shareholder approval by a majority of voting rights.

An acquisition can take place through a variety of complicated structures, some of which include an acquirer's wholly owned "acquisition subsidiary" into which the target merges.[12] Depending on state laws and corporate charters, acquirers that use acquisition subsidiaries may be able to circumvent the more onerous approval requirement based on voting rights, so that a merger must pass only out of votes cast.

Attorneys who practice in this area note that legal concerns (such as product or environmental liabilities) or tax issues are usually the most important considerations in structuring an acquisition; see Reed and Lajoux (1999) and Gaugham (2002) for a discussion of tax issues. Of course, in some cases firms may consider how the structure of the deal will affect the type of shareholder approval needed. The type of vote required may thus not be entirely exogenous.

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[11]Listing rules for the NYSE, AMEX, and Nasdaq all require that shareholders approve any acquisition that will result in an increase of 20% or more of the outstanding shares. See NYSE Listed Company Manual section 312.03, AMEX Company Guide section 712, and Nasdaq Marketplace Rules section 4350-(i), and AMEX Company Guide section 712.

[12]Reed and Lajoux (1999) diagram numerous transaction structures including: a taxable forward merger, a taxable reverse merger, a taxable subsidiary forward merger, a tax-free forward merger (A reorganization), a tax-free triangular merger [hybrid A reorganization-section 268(a)(2)(D)], a tax-free acquisition of stock for voting stock (B reorganization), an acquisition of property for voting stock (either a C reorganization or a D reorganization), and a National Starch transaction (section 341 acquisition).

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