

# **Do Shareholders Listen? M&A Advisor Opinions and Shareholder Voting**

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## **Abstract**

Recent studies find that merger advisors, in particular acquirer advisors, often face conflicts of interest and present biased opinions about an underlying deal. It is not clear, however, how shareholders react to these opinions. Using a sample of mergers announced from 2000 to 2006, we examine whether target and acquirer advisors' opinions (valuation of target equity, long-term earnings forecast, and affiliated analyst recommendation) affect how acquirer shareholders vote on mergers. Our results show that the opinions of target advisors, but not those of acquirer advisors, significantly impact shareholder voting. We conclude that shareholders are able to discern the potential bias in the opinions of merger advisors and follow the advice of the less-biased target advisors. Our study provides important evidence for the ongoing debate about regulatory reform governing investment banking transactions.

**Keywords:** Merger and Acquisition, Shareholder Voting, Investment Banking, Financial Advisor

## 1. Introduction

Empirical studies document that mergers on average do not create wealth for acquirer shareholders (Travlos, 1987; Amihud, Lev, and Travlos, 1990; Moeller, Schinglemann, and Stulz, 2005). For example, Moeller et al. (2005) detail that acquirer shareholders lose nearly \$216 billion in the 1990s. Shareholder voting, however, can provide “credible threats” to management’s merger decisions. Burch, Morgan, and Wolf (2004) find that acquirer shareholder voting is significantly related to deal and firm characteristics. Shareholder voting, therefore, may allow acquirer shareholders to block a merger if the majority of shareholders are not satisfied with the deal.

As a third party assessing deal quality, financial advisors present their opinions of a merger to the board, managers, and shareholders. From 1994 to 2003, 80% of target firms and 37% of acquirers obtained financial advisors’ opinions (Kisgen, Qian, and Song, 2009). While past studies find acquirer shareholders on average do not benefit from mergers, financial advisors gain from completed deals. From 1985 to 2000, fees paid to financial advisors were nearly \$36 billion, 75% of which were paid conditional on deal completion (Hunter and Jagtiani, 2003).

Consistent with the prior studies, financial advisors often provide opinions to increase the likelihood of deal completion, rather than to maximize acquirer shareholder wealth (Allen, Jagtiani, Peristiani, and Saunders, 2004; McLaughlin, 1990; Rau, 2000). In addition, a higher rate of deal completion increases a bank’s market share and reputation and may help to generate future business (Davidoff, 2006). To this end, potential conflicts of interest by financial advisors have attracted attention from regulators. In 2007, the Securities and Exchange Commission (SEC) approved Rule 2290 that requires Financial Industry Regulatory Authority (FINRA) member firms to fully disclose

any potential conflict of interest in the process of reaching their fairness opinions presented to shareholders of public firms involved in acquisitions.

Based on the existing literature, we propose three hypotheses to examine the relation between financial advisors' opinions and shareholder voting on mergers: the passive listener, the uninterested listener, and the active listener hypotheses. The *Passive Listener hypothesis* postulates that acquirer shareholders listen to financial advisors' opinions regardless of the potential conflict of interest and resulting bias. This hypothesis predicts higher shareholder support for a deal when the financial advisor's opinion of a merger is more favorable. The *Uninterested Listener hypothesis*, however, suggests that acquirer shareholders do not listen to their financial advisors' opinions and vote without considering these opinions. This hypothesis predicts no significant relation between shareholder voting and financial advisor's opinion. Finally, the *Active Listener hypothesis* proposes that acquirer shareholders are able to recognize the potential conflict of interest and bias in financial advisors' opinions and are more likely to listen to less biased opinions. Previous studies, as well as our own empirical evidence, suggest that target firm advisors are more conservative and less biased.<sup>1</sup> This hypothesis, therefore, predicts that target advisor opinions are more likely to impact acquirer shareholders votes.

The focus of our analyses is on the acquirer shareholders' approval rate, which is measured as the percent of shares held by outside shareholders that support a merger deal. We exclude managerial and board ownership and shares held by financial advisors as we expect that these parties always vote for

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<sup>1</sup> See, for example, Kesner, Shapiro, and Sharma (1994), Allen, Jagtiani, Peristiani, and Saunders (2004), and Cain and Denis (2008).

a deal, given our sample of friendly negotiated mergers. Our acquirer shareholders' approval rate, therefore, reflects only the outside shareholders' assessment of the deal. Furthermore, Burch et al. (2004) find that some shareholders may not cast a vote on a merger when they are not satisfied with the deal. They conclude that the approval rate based on outstanding voting rights rather than votes cast better represents shareholders' attitude to a deal. As a result, we use outstanding votes held by outside shareholders as the base.

To measure financial advisors' opinions, we use three sets of information. First, we collect financial advisors' valuation on target firm equity. This information is usually provided in the merger agreement shareholders vote on. Since financial advisors often provide a valuation range for target equity, we use the scaled difference between the offer price and the midpoint of target equity valuation as a measure of whether an acquirer over- or under-pays for a target. Second, we measure financial advisors' opinions with their long-term EPS forecasts for the combined firm, also provided in the merger agreement. Blockholders and institutional investors likely focus on long-term profits, rather than the short term gains or losses (Chen, Harford, and Li, 2007; Holmstrom and Tirole, 1993). As a result, acquirer shareholders may more likely vote for a deal if they perceive an increase in long-term EPS. Third, we examine a merger advisor's affiliated analysts' recommendations after the deal announcements. Affiliated analysts work for the same investment bank as the merger advisor. Their recommendations, therefore, may also be motivated by deal completion (Kolasinski and Kothari, 2008; Becher and Juergens, 2009).

Using hand-collected data of financial advisors' opinions on 148 mergers announced from 2000 to 2006, we show that acquirer shareholders only listen to target advisors and tend to ignore acquirer

advisors' opinions. Based on multivariate regression results, we document that acquirer shareholders' approval rate increases 3.7% when target advisors' equity valuation increases one standard deviation and 4.6% when they provide accretive EPS forecasts. This rate increases by 8.9% when target-affiliated analysts update recommendations after the deal is announced. We, however, find no evidence that acquirer shareholder voting is related to their own advisor's opinion. These results support the active listener hypothesis in that acquirer shareholders appear more likely to respond to less biased opinions.

We also provide evidence on whether merger advisors' opinions are biased. We find that the acquirer advisors are more optimistic in their valuation of target firm equity. Their affiliated analysts also provide optimistically biased recommendations when the market reacts negatively to a deal announcement. Target advisors and their affiliated analysts, on the other hand, do not appear to be optimistically biased. We also find evidence that future business engagements appear to be related to acquirer advisors' biased opinions.

Overall, our results suggest that acquirer shareholders are able to discern the fact that acquirer advisors' opinions are biased and listen only to target advisors' opinions. Our paper contributes to the discussion about financial advisors' conflict of interests on shareholder wealth as well as provides evidence on the efficacy of shareholder voting.<sup>2</sup> The remainder of the article is organized as follows. Section 2 discusses related literatures and develops three hypotheses. Section 3 describes the data and defines the main variables. Section 4 presents empirical results while Section 5 concludes.

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<sup>2</sup> Studies on acquirer shareholder voting find that shareholder voting is significantly related with deal characteristics, indicating that acquirer shareholder voting has a monitoring effect (Hamermesh, 2003 and Hsieh and Wang, 2008). Our results provide further evidence that the monitoring effect from acquirer shareholder voting is robust to the presence of financial advisors' biased opinions.

## 2. Literature review and hypotheses development

This paper is related to two streams of literature: financial advisors' role in mergers and acquisitions, and shareholder voting on corporate decisions. The discussion about financial advisors' role focuses on the benefits and potential conflict of interests of their advisory services. The debate on shareholder voting centers on how shareholders vote and the efficacy of their votes. In this section, we review these studies and propose three hypotheses.

### 2.1 *Financial advisor opinions*

Financial advisors possess certain expertise that may reduce information asymmetry in financial transactions (Bowers and Miller, 1990). Servaes and Zenner (1996) find that acquirers are more likely to hire financial advisors when deals are more complex and information on targets is less available. Kisgen et al. (2009) find the presence of a fairness opinion is positively related to deal complexity as well as board monitoring, which suggests that fairness opinions provide valuable information to management and shareholders as well as legal protection to managers and boards of directors.

The reputation of the financial advisors appears to benefit the shareholders. Bowers and Miller (1990) detail that total combined returns are higher when either party (target or bidder) hires a top-tier investment bank.<sup>3</sup> Kale, Kini, and Ryan (2003) document that shareholders gain a higher portion of merger synergies when their financial advisors have higher reputation relative to the counter party.<sup>4</sup> Bao and Edmans (2009) find that stock returns from an investment bank's prior deal predict returns on future deals advised by the same investment bank.

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<sup>3</sup>Bowers and Miller (1990) define first-tier bankers as those listed directly below the manager and co-manager in the tombstones placed in the financial section of newspapers.

<sup>4</sup>The authors define reputation as financial advisors' investment banking market shares in the year of the merger.

While financial advisors may create value, conflicts of interests may help to explain why numerous studies find acquirer shareholder returns are negative around mergers. McLaughlin (1990, 1992) argues that contingent fee payment contracts may lead to financial advisors' conflicts of interest. Rau (2000) finds that a higher proportion of top tier investment banks' advisory fees are contingent and that acquirers advised by these advisors are more likely to complete a deal, but pay higher premiums. Further, financial advisors' conflict of interest may affect their affiliated analysts' recommendations. Kolasinski and Kothari (2008) detail that analysts affiliated with advisors provide biased recommendations to maximize financial advisors' expected fee revenue. Becher and Juergens (2009) provide evidence that advisors' affiliated analysts issue biased recommendations to ensure deal completion. Collectively, this evidence suggests that financial advisors may face conflicts in mergers and provide biased opinions to maximize their own benefit at a cost to acquirer shareholders.

In merger transactions, acquirer and target firms have different interests, as do their financial advisors. Specifically, acquirer firms want to pay a lower acquisition price, while target firms want the opposite. Kesner, Shapiro, and Sharma (1994) document that the positive relation between financial advisors' compensation and merger premium aligns interests between shareholders and target advisors, but creates conflict of interest for acquirer advisors. Allen, Jagtiani, Peristiani, and Saunders (2004) find that target advisors with a prior lending relation to the target serve a certification effect while acquirer advisors do not have such effect. This is because acquirer advisors tend to provide biased opinions in order to garner future loan commitments from their clients while the target advisor's client ceases to exist after the merger is completed. Cain and Denis (2008) examine financial advisors' valuation of the target firm and find that only acquirer advisors issue optimistically biased opinions.

Using the methodology of Cain and Denis (2008), we find similar results in our sample (unreported). Further, we examine the choice of financial advisor using a sub-sample of combined firms that engage in another merger within three years of the sample deal. In untabulated results, we find that in the future deals these firms are nearly four times more likely to hire the current acquirer advisors than the current target advisor. Taken together, these studies suggest that the target advisors may provide less biased opinions than the acquirer advisors.

## 2.2 *Shareholder voting in corporate decisions*

Mergers often require shareholder approval. Easterbrook and Fischel (1983) and Harris and Raviv (1988) argue that shareholder voting have limited efficacy due to free-rider and agency problems. Matvos and Ostrovsky (2008) find mutual funds that own both target and acquirer stocks are more likely to vote for a merger at an acquirer shareholder meeting, even though the deal reduces acquirer shareholder value. Bethel and Gillan (2002) find managers tend to classify proposals as routine, rather than non-routine, to validate brokers' uninstructed votes for a better outcome. Finally, the evidence that shareholder votes have little impact on future performance suggests shareholder voting may have limited efficacy (Gillan and Starks, 2007; Karpoff, Malatesta, and Walkling, 1996).

Other studies, however, detail that some shareholders cast votes based on firm performance, providing a potential threat to management. Cai, Garner, and Walkling (2009) and Gordon and Pound (1993) document a significant relation between shareholder voting and prior firm performance. Martin and Thomas (2000) examine voting on stock option plans and show that shareholders are more likely to support such plans at poorly performing firms. They conclude shareholders' voting may help to align managers' interests. Martin and Thomas (2005) note changes in compensation are significantly

lower if shareholders strongly oppose management-sponsored stock option plans, suggesting boards react to shareholders voting outcomes. Moreover, significant shareholder opposition in voting outcomes often leads to governance and management reforms (DeAngelo and DeAngelo (1989), Dodd and Warner (1983), Mulherin and Poulsen (1998), and Cai, et al. (2009)).

Overall, the evidence from these studies suggests that shareholder voting can be an effective mechanism to protect shareholders' interests in major corporate events. In this study, therefore, we examine whether financial advisors can affect shareholder voting decisions in mergers.

### 2.3. Hypotheses

We develop three hypotheses to examine whether acquirer shareholder voting behavior is impacted by target or acquirer financial advisors' opinions. First, the *Passive Listener hypothesis* states that acquirer shareholders rely on financial advisors' opinions in their voting decisions. This hypothesis postulates that acquirer shareholders listen to their financial advisors' opinions regardless of the potential conflict of interest. Financial advisors may have expertise in identifying merger partners with higher potential synergy as well valuing such merger gains. Bowers and Miller (1990) find that the choice of financial advisors affect the combined target and acquirer return of a merger. Bao and Edmans (2009) show persistent acquirer firm announcement returns among different deals advised by the same bank and conclude that investment bank skills affect the shareholder wealth of their clients. Kisgen, Qian, and Song (2009) and Servaes and Zenner (1996) document that the probability of hiring a financial advisor increases with deal complexity as well as when the potential legal risk of conflict of interest is higher. As a result, shareholders may be unable to recognize the bias in advisor opinions and rely on financial advisors' opinions for their voting decisions. This hypothesis

predicts a positive relation between the financial advisor's opinion on a merger and shareholder voting support for this merger.

Next, the *Uninterested Listener hypothesis* centers on the notion that acquirer shareholders recognize that their financial advisors face potential conflicts of interest. In particular, shareholders are aware that financial advisors provide opinions intended for deal completion rather than shareholder wealth maximization. McLaughlin (1990, 1992) argues a contingent advisory fee payment structure may trigger financial advisors' conflicts of interest for deal completion regardless of quality. In addition, financial advisors may take advantage of their position in a deal to the detriment of current shareholders (Bodnaruk, Massa, and Simonov, 2009). Financial advisors' affiliated analysts may also issue biased recommendations to ensure maximum fee revenue (Becher and Juergens, 2009; Kolasinski and Kothari, 2008). Due to these potential conflicts of interest, acquirer shareholders may deem all financial advisors' opinions biased and ignore any advisor's opinion in evaluating mergers.

Finally, the *Active Listener hypothesis* proposes that acquirer shareholders may be able to recognize when financial advisors issue biased opinions and only react to unbiased opinions. Several studies document that acquirer financial advisors' contingent fee payments and future business opportunities lead to conflicts of interest and, consequently, biased opinions. Target advisors, however, face less severe conflicts of interest and their opinions may be less biased. The target ceases to exist after a merger, and as a result, the target advisor is less concerned about future business opportunities (Davidoff, 2006; Cain and Denis, 2008).

In contrast, acquirer advisors have an incentive to form good relationship with acquirer managers for future business opportunities. To this end, these acquirer advisors likely present over-optimistic opinions to help management close a deal.<sup>5</sup> In addition, to convince target management and board to accept an offer, target advisors have an incentive to provide a lower valuation of the target and more conservative forecasts. Although this downward bias may hurt target shareholders with reduced premium, the acquirer shareholders may find such conservative opinions valuable since these opinions may represent a lower bound of the target value and merger outcome. This hypothesis predicts, therefore, acquirer shareholders are more likely to listen to the target advisors' opinions.

### **3. Data and sample selection**

#### *3.1 Sample selection*

We start our sample collection with mergers announced between 2000 and 2006 on the Securities Data Corporation (SDC) Mergers & Acquisition database. Since we focus on acquirer shareholder voting, we only require that the acquirer to be a U.S. public firm, while the target may be public, private, or a foreign firm. Next, we obtain shareholder voting data from Institutional Shareholder Services (ISS), SEC 8-k filings, or Factiva News search. These data requirements yield a sample of 153 mergers announced between 2000 and 2006. The major U.S. exchanges all require shareholder approval if a firm issues over 20% of outstanding shares in a merger.<sup>6</sup> This requirement results in a

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<sup>5</sup>Acquirer managers often gain from completing deals despite shareholder losses. Grinstein and Hribar (2004) find acquirer managers receive a substantial merger bonus even if shareholders lose value in a deal.

<sup>6</sup>NYSE Company Manual section 312.03, AMEX Company Guide section 712, and NASDAQ Marketplace Rules section 4350.

sample of relatively large target firms. Table 1 details that the average transaction value-to-acquirer size ratio is 0.80.<sup>7</sup>

Next, we collect financial advisors' opinions from merger agreements in SEC filings (form S-4 and various proxy filings). We are able to obtain either target or acquire advisor opinions in 148 of the 153 deals. These 148 deals announced between 2000 and 2006 represent our final sample. Stock price data are obtained from CRSP and augmented with data from Yahoo Finance (for targets not on CRSP). All accounting data are collected from COMPUSTAT.<sup>8</sup>

### 3.2 *Voting Measures*

Our main dependent variable is acquirer shareholder approval rate for merger proposals, which measures outside shareholders' support. Since all deals in our sample are friendly, we assume acquirer management and institutions affiliated with the financial advisors always vote for a deal and exclude their shares when calculating acquirer shareholder approval rates.

Burch et al. (2004) indicate that shareholders not in favor of a deal often vote "abstain" or do not cast a vote. In the latter case, shares are recorded as broker non-votes if held under street name. We, therefore, use the total number of voting shares held by outside investors, rather than votes cast, as the base for the acquirer shareholder approval rate. This measure focuses on outside shareholder support for a deal rather than voting outcome.

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<sup>7</sup>Burch et al. (2004) find average target-to-acquirer size of 0.55 for a 1990-2000 sample while Hsieh and Wang (2008) report average relative size of 0.76 for all stock deals and 1.19 for mixed-payment deals (1990 to 2005).

<sup>8</sup>Shareholder voting may be endogenous. If an acquirer manager is not confident of shareholder support, she may pay with cash to avoid a vote. Our focus, however, is how shareholders respond to advisor opinions rather than how shareholder voting impacts deal completion. See Hsieh and Wang (2008) for an analysis of shareholder voting on deal completion.

$$\text{acquirer shareholder approval rate} = \frac{\text{shares voted for} - \text{shares held by management and financial advisors}}{\text{shares outstanding} - \text{shares held by management and financial advisors}} \quad (1)$$

Table 1 details that, on average, 96.35% of shares cast vote in favor of a merger. However, only 68.39% of the outstanding shares vote for the mergers in our sample.<sup>9</sup> After excluding the shares owned by management and institutions affiliated with financial advisors, only 61.54% shares held by outside shareholders support these deals.

### 3.3 *Financial Advisors' Opinions*

Financial advisors' opinions are detailed in the "Opinion of financial advisors" section in merger agreements. We collect target firm equity valuation from discounted cash flow analysis and combined firm EPS forecasts from pro-forma earnings analysis. We obtain financial advisors' affiliated analyst recommendations from both I/B/E/S and First Call.

#### 3.3.1 *Target firm equity valuation*

In the merger agreement, financial advisors often provide an estimation of target firms' equity value, usually in a valuation range. The offer price relative to the valuation range may indicate whether the acquirer is overpaying. Following Cain and Denis (2008), we define an equity valuation (EV) ratio based on the target's relative selling price:

$$\text{EV ratio} = \frac{\text{average target equity valuation} - \text{offer price}}{\text{offer price}} \quad (2)$$

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<sup>9</sup>Bethel et al. (2009) find that from 1999 to 2005, the corresponding percentage is 70%.

A positive EV ratio indicates that the estimated target firm value is higher than the offer price, or that the acquirer underpays the target, while a negative EV ratio indicates overpayment. Table 1 details that, on average, acquirer advisors value the target equity 3% above the offer price, while the target advisors value the target equity 7% below offer price. The mean and median differences between acquirer and target advisors' EV ratios are 9% and 10%, respectively, and both of these differences are statistically significant at the 1% level. This evidence shows that acquirer advisors are relatively more optimistic in target firm valuation.

### 3.3.2 *Advisors' EPS forecasts*

Merger advisors' earnings accretion/dilution forecasts usually cover a period from deal completion to several years after the merger. In the first a couple of years after merger completion, the earnings of the combined firm often include one-time merger charges and integration cost. The value of such earnings forecast in long-term valuation is questionable. Merger agreements, however, often suggest that the earnings forecast in the last year of the forecast period can be extrapolated into later years. Thus, in our analysis, we focus on the financial advisors' earnings forecast for the last year of the forecast period.

EPS forecasts can be numerical or descriptive. In our sample, numerical EPS projections are available from the acquirer advisors in 42 cases, 39 cases from the target advisors, and 19 cases from both advisors. Descriptive EPS projections, such as accretive, neutral, or dilutive, however, are available from acquirer advisors in 94 cases, 66 cases from the target advisors, and 48 cases from both advisors. Due to limited sample size, we measure EPS forecasts with three categories: accretion,

neutral, and dilution, and assign them value of “1”, “0”, and “-1”, respectively. Table 1 shows that in the vast majority of the cases the financial advisors predict EPS accretive after to the acquirer firm after the merger.

### *3.3.3 Affiliated analyst recommendations*

We define an analyst as affiliated if she works for the same investment bank as the financial advisors. From I/B/E/S and First Call, we obtain analyst recommendations for each acquirer firm from three years before the merger announcement to shareholder voting date. Recommendations have five levels, ranging from “1” for strong buy to “5” for sell. Following Kolasinski and Kothari (2008) and Becher and Juergens (2009), we classify analysts’ affiliations by manually matching their names with financial advisors’ names. We classify analysts into three affiliation groups: acquirer-affiliated, target-affiliated, and unaffiliated.

We define recommendation updates as the difference between the analyst recommendation after the merger announcement but before the shareholder voting and the last recommendation before the merger announcement. The variable “drop recommendation” equals one if at least one analyst makes a recommendation during the three years before merger announcement but no recommendation after the announcement. Irvine (2003) finds that the market responds more positively to analysts’ initiations than to other recommendations. The variable “initiate recommendation” equals one if an acquirer firm is covered by analyst recommendations after deal announcement but not before.

Table 1 indicates that after merger announcement affiliated analysts provide more favorable recommendation than the unaffiliated analysts, although the differences are not statistically significant. Among the 86 acquirer advisors’ affiliated analysts that cover the acquirer firm before the merger

announcement, 44 drop coverage after the merger announcement. Similarly, among the 55 target advisors' affiliated analysts who cover the acquirer pre-merger, 32 stop coverage post-announcement. Since their affiliated investment banks are serving as financial advisors, these analysts may choose to keep quiet rather than give pessimistic recommendations. Thus, their silence may signal poor prospects for the merger.

#### **4. Empirical Results**

In this section, we examine the relation between acquirer shareholder voting and financial advisors' opinions. As previously noted, financial advisors and their affiliated analysts tend to provide optimistic opinions about the merger they advise. When advisors choose not to express their opinions, the absence of a positive opinion may send a negative signal about the merger. We, therefore, examine both the presence of a financial advisor opinion about a merger as well as the specific context of such opinion.

##### *4.1 Acquirer shareholder voting and financial advisors' valuation of target firm equity*

We first examine whether the financial advisors' valuation of the target firm equity impacts how outside acquirer shareholders vote. Such valuation is routinely presented in the merger agreement that shareholder vote on and signals whether an advisor believes the acquisition price over- or under-pays for the target firm. Panel A in Table 2 shows that when the target firm advisor provides an estimation of the target equity value, the average and median increases of acquirer shareholder support for the merger equals 8.4% and 7.3%, respectively, and both figures are statistically significant at the 1% level. When the acquirer firm advisor provides such estimation, the corresponding figures equal 6.3%

and 1.6%, respectively (mean is statistically significant at the 5% level and the median at the 10% level). The presence of a target advisors' opinion appears to have a stronger effect on shareholder holding than that of an acquirer advisor.

We next examine whether advisors' specific opinions affect shareholder voting. Panel B of Table 2 shows that when the target advisor provides a positive EV ratio, i.e. the target is undervalued, the mean and median acquirer shareholder support increases by 6.9% and 6.8%, respectively (mean p-value of 0.11 and median statistically significant at the 10% level). In contrast, when the acquirer advisor presents an opinion that the target is under-paid, mean and median increases in shareholder support are only 2.6% and 3.9%, respectively, and both figures are insignificant. This evidence suggests that the acquirer shareholders value the target advisor's valuation more than that of their own advisors. In addition, we find that target advisors are more conservative in their valuation. In the 67 mergers where both advisors provide valuation figures, target advisors opine that the offer undervalues the target in 12 cases (18%) while the acquirer advisor do so in 29 cases (43%).

We next present multivariate regression results in Table 3. The dependent variable is the acquirer shareholder approval rate (since this variable is bounded between zero and one, we estimate all models with a Tobit specification). We include several deal, firm, and advisor characteristics as control variables. In Model (1) the main independent variable is whether an advisor opines about the equity value of the target firm. The results show that when the target advisor provides such opinions the acquirer shareholder support for the deal increases by 5.8%, which is statistically significant at the 5% level. The presence of an acquirer advisor opinion on valuation, however, has no significant effect on shareholder voting.

In Model (2) of Table 3, we include only those cases where both advisors (acquirer and target) provide a specific valuation of the target firm. The main independent variable in this model is the EV ratio. The results demonstrate that the acquirer shareholders' approval rate increases 3.66% when the target advisor's valuation increases one standard deviation. The acquirer advisor's specific opinion on valuation, however, again has no effect on shareholder voting.

Finally, in Model (3) of Table 3, we classify advisor opinions into three categories: no opinion on valuation, negative EV ratio, and positive EV ratio, assigning each a value of -1, 0, and 1, respectively. We then use this categorical variable as the main independent variable in Model (3). We again find that the target advisor opinion has a significant effect on how acquirer shareholders vote while the acquirer advisor opinion has no such effects. These results provide consistent evidence that acquirer shareholders listen to target advisors' opinions rather than those of acquirer advisors.

#### *4.2 Acquirer shareholder voting and advisors' EPS forecasts*

Financial advisors often forecast the accretion or dilution effect of a merger on acquirer firm earnings in the merger agreement. These earnings growth forecast, in particular the terminal figure which is often projected in to the infinite future, may signal a merger's long-term effect on firm performance. In this section, we examine whether these forecasts by financial advisors affect acquirer shareholder voting on the merger.

Panel A in Table 4 details that the acquirer shareholders' approval rate increases by an average of 7.3% when the target advisor provide earnings forecasts, which is statistically significant at the 1%

level. In contrast, the average approval rate increases by only 3.5% when the acquirer advisor provides earnings forecasts, and this figure is statistically insignificant.

We next divide the sample by whether the advisors present accretive earnings forecasts. Panel B of Table 4 details that the average shareholder approval rate increases 6.3% if target advisors predict that the merger deal will be accretive to acquirer firm earnings (significant at the 1% level). The average approval rate, however, increases only 1.8% if acquirer advisors predict an accretive EPS, and this figure is again statistically insignificant.

These earnings forecasts by financial advisors, however, may be correlated with the quality of a merger, which may independently affect shareholders' voting decision. To control for the possible confounding factor, we estimate multivariate regressions of shareholder voting in Table 5. The dependent variable is the acquirer shareholder approval rate and the main independent variables are several measures of financial advisor opinion on long-term earnings. We include several deal, firm, and advisor characteristics as control variables. Model (1) centers on whether target/acquirer advisors provide earnings forecasts, while model (2) focuses on whether these forecasts are accretive, and model (3) separates forecasts into categories.

Results from Model (1) of Table 5 indicate that the acquirer shareholder approval rate increases by 5% when target advisors provide earnings forecast but increases only by 1.6% when acquirer advisors do so. The first figure is statistically significant at the 10% level while the second one is insignificant. Model (2) shows that acquirer shareholder support for the merger increases by 4.6% when target advisors forecast accretive earnings, and this figure is statistically significant at the 10% level. In contrast, acquirer shareholder support increases by 1.1% if the acquirer advisor forecasts

accretive earnings, and the figure is statistically insignificant. In Model (3), we classify financial advisors' earnings forecasts into three categories: no opinion, dilutive or neutral forecast, and accretive forecast on post-merger earnings, and assign values of -1, 0, and 1, respectively. We find similar results as in the first two models. The results of Table 5 again suggest that shareholder voting is more related to the target advisor's opinions than those of the acquirer advisors.

#### *4.3 Acquirer shareholder voting and affiliated analysts' recommendations*

A number of studies find that changes in analyst recommendations may provide more information to the market than recommendation levels. For example, Jegadeesh, Kim, and Lee (2004) find that changes in recommendations, rather than levels, have predictive power for returns while Kolasinski and Kothari (2008) suggest analyst recommendation changes convey more information than levels. Further, Becher and Juergens (2009) note that the 2002 Global Research Analyst Settlement led to rescaling of recommendation levels and focus on changes in recommendation to avoid a bias in results. Thus, we examine how acquirer shareholder voting is related to affiliated analysts' recommendation issuance, changes, terminations, and levels.

Panel A in Table 6 examines the certification effect of affiliated analysts' recommendations. The data shows that more than 50% of target-affiliated analysts stop providing acquirer recommendations after a deal is announced, which decreases the median (mean) acquirer shareholders' approval rate by 5.65% (5.99%), with the median value significant at the 10% level.<sup>10</sup> We find, however, acquirer

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<sup>10</sup> Zhu and Zhao (2008) find that 57% of the analysts covering the acquirer stop providing recommendations after the deal announcement.

shareholder votes are negatively related with the issuance of recommendations by acquirer-affiliated analysts, although the difference is statistically insignificant.

In Panel B of Table 6, we categorize recommendation changes into two groups: one group includes initiated, upgraded and same recommendations, while the second group includes recommendation downgrades as well as instances when analysts stop providing recommendations after the deal is announced. The results are similar to those from Panel A. Median acquirer shareholders' approval rate is 5.36% higher in the first group than in the second group (significant at the 10% level). Collectively, these results suggest that acquirer shareholders appreciate target-affiliated analysts' recommendations only.

We next examine the relation between shareholder voting and affiliated analysts' recommendations in a multivariate setting. Table 7 details four models: post-announcement recommendation levels, recommendations changes, ranked recommendations, and ranked recommendations allowing for multiple changes in recommendation levels. Model (1) in Table 7 highlights that the acquirer shareholders' approval rate increases 8.90% when target-affiliated analysts provide post-announcement recommendations, where this figure is statistically significant at the 10% level. In contrast, the presence of an acquirer-affiliated analyst recommendation appears to have no effect on how shareholders vote.

In contrast, Model (2) focuses on changes in recommendations. Results in this model detail that the acquirer shareholders' approval rate increases 4.83% when target-affiliated analysts upgrade their recommendations after the merger announcement by one standard deviation. Acquirer shareholders,

however, do not appear to respond to acquirer-affiliated analyst recommendation changes after the merger announcement.

In Model (3), we segment affiliated analysts' post-announcement recommendations into five different categories. The category equals one for new recommendations, two for upgraded recommendations, three for the same recommendations, four for downgraded recommendations, and five if analysts stop providing recommendations post-announcement. Acquirer shareholders' approval rate increases 4.10% when the rank of target-affiliated analysts' recommendations increases one level after the merger announcement. This suggests that shareholders are more likely to vote for a deal when target-affiliated analysts view the deal favorably.

Finally, in Model (4) we segment our categories further to distinguish whether the analysts increases (decreases) recommendations by one or more than one level. Even allowing for these multiple level changes, we find that the acquirer shareholders' approval rate increases 2.60% when the target-affiliated analysts' category (multiple) increases one level. These results are consistent with those findings from univariate tests suggesting that only target-affiliated analysts' recommendations certify deal quality.

Among control variables, institutional combined return from cross-ownership increases acquirer shareholders' approval rate. This result is consistent with Matvos and Ostrovsky (2008), who argue that institutions with cross-ownership are more likely to support a deal because of their positive combined return from deal completion. Acquirer shareholders' voting decreases when the merging firms are from the same industry, which is consistent with the extant literature documenting that intra-

industry acquisitions decrease shareholder value (Kale et al., 2003; Louis, 2005; Stigler, 1964).<sup>11</sup> Last, similar to results from Table 3, our findings in Table 7 demonstrate that the financial advisors' prior business relations with the acquirer decreases shareholders' approval rate.

## **5. Conclusion**

Voting on merger and acquisitions are arguably one of the most important corporate decisions shareholders have to make. Whether this shareholder decision is influenced by the opinions of the financial advisors has important consequence for shareholder wealth and the effectiveness of regulatory oversight. Further, previous studies show that shareholders on average experience significant losses when a firm undertakes an acquisition while the merger advisors stand to gain substantial fees when a deal is closed. The apparent conflict of interest between the merger advisors and the shareholders prompt us to examine the relation between acquirer shareholder voting and financial advisor opinions.

It is possible that shareholders listen to financial advisors' opinions regardless of the potential bias and are more likely to support a deal when the merger opinion is more favorable. Alternatively, shareholders may choose to ignore their financial advisors' opinions and no relation exists between shareholder voting and financial advisor opinions. Finally, it is plausible that the acquirer shareholders are able to recognize the more severe conflict of interest of their own advisors while are more willing to follow the less biased opinions of target advisors.

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<sup>11</sup> We have 132 horizontal deals and 16 diversified deals. The average acquirer abnormal return during the window (AD-20, MD-2) is 5.4% lower in intra-industry deals (p value of 0.58).

Our principal result is that acquirer shareholders apparently are able to see through their own financial advisors' conflicts of interest and do not alter their voting decision based on their opinions. These results hold whether the opinions are in the form of valuation of target equity, long-term earnings forecast, or affiliated analyst recommendations. Acquirer shareholders, however, do appear to listen to the opinions of target financial advisors. These results support the active listener hypothesis in that acquirer shareholders appear more likely to consider the less biased opinions when making their voting decisions. Our evidence has important implications for shareholder wealth and potential regulatory reforms.

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**Table 1**  
**Summary Statistics**

Our sample includes 148 mergers announced during from 2000 to 2006 that require acquirer shareholder approval. Acquirer (Target) firm size equals the market value of equity on AD – 21, where AD denotes the announcement date. Relative size equals deal the transaction value from SDC divided by acquirer firm market value of equity. Acquirer announcement return is the cumulated abnormal return over the period of [AD-20, AD+1]. We use the CRSP value –weighted index as the benchmark. Thomson Financial reports each year the top 25 investment banks based on the aggregate value of completed merger transactions advised. We use the ranks of these 25 banks in the year before merger announcement to measure financial advisors’ reputation. For banks not included in the top 25 list, we assign a value of 26. If a target or acquirer firm hires more than one advisor, we use the lowest rank (highest reputation). Acquirer shareholder approval rate equals the number of outside shareholder shares that vote for a merger divided the total number of shares held by outside shareholders. We exclude shares held by executives, board of directors, and institutions affiliated with financial advisor from the calculation of outside shareholder holdings. Financial advisors’ equity valuation (EV) ratio equals the difference between the midpoint of valuation range and the offer price divided by the offer price. We classify an analyst as affiliated is she works for the same investment bank as the financial advisors. We obtain analyst recommendations from I/B/E/S and First Call, where analyst recommendations have five levels: 1 for “strong buy,” 2 for “buy,” 3 for “hold,” 4 for “underperform,” and 5 for “sell.” We classify an analyst recommendation as “initiate recommendation” if the analyst does not provide recommendation before a merger announcement but does so after the announcement and as “drop recommendation” she provides recommendation before but not after the announcement. Financial advisors’ earnings forecasts refer to their prediction of whether the merger is accretive or dilutive to the acquirer firm earnings. When an advisor provides such forecast for multiple years, we use the prediction of the final year in the forecast period since it is least affected by one-time merger charges and can often be extrapolated into the future.

Variable	N	Mean	Median	Min	Max	Std.
Panel A: Firm and deal characteristics						
Acquirer market value of equity (\$ millions)	148	4,482	355	12	140,126	17,299
Target market value of equity (\$ millions)	110	2,305	223	7	49,434	7,415
Deal transaction value (\$ millions)	148	2,326	180	1	58,761	8,111
Transaction value to acquirer market value of equity	148	0.80	0.61	0.0002	10.30	0.93
Acquirer announcement return (%)	148	-2.02	-1.80	-36.62	48.53	12.60
Acquirer advisor reputation	143	14.16	11.00	1.00	26.00	9.75
Target advisor reputation	141	14.98	15.00	1.00	26.00	10.34
Number of acquirer advisors	143	1.18	1.00	1.00	2.00	0.39
Number of target advisors	141	1.17	1.00	1.00	3.00	0.43
Panel B: Acquirer shareholder voting						
Shares vote-for / votes cast (%)	148	96.35	98.49	50.95	100.00	6.27
Shares vote-for / shares outstanding (%)	148	68.39	70.01	12.13	93.02	11.09
Management ownership (%)	148	14.11	10.05	0.02	84.30	14.34
Acquirer advisor ownership (%)	148	0.56	0.00	0.00	23.74	2.11
Target advisor ownership (%)	148	0.59	0.00	0.00	14.12	1.90
Acquirer shareholder approval rate (%)	148	61.54	64.88	0.00	92.57	15.04

**Table 1 (continued)**  
**Summary Statistics**

Panel C: Financial advisors' opinions						
<i>Advisor equity valuation ratio (%)</i>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Min</b>	<b>Max</b>	<b>Std.</b>
(1) Acquirer advisors	87	3.27	0.18	-67.61	115.57	25.59
(2) Target advisors	98	-7.34***	-9.21***	-59.21	58.36	20.82
Difference (1) – (2)	67	8.83***	10.27***	-72.84	83.37	24.61
<i>Advisor EPS Accretion/Dilution forecasts</i>	<b>Accretive</b>	<b>Neutral</b>	<b>Dilutive</b>	<b>None</b>		
EPS forecasts by acquirer advisors	86	2	6	49		
EPS forecasts by target advisors	58	2	6	75		
<i>Analyst recommendations after deal announcement</i>	<b>Initiate</b>	<b>Update</b>	<b>Drop</b>			
Acquirer advisor-affiliated analyst	2	42	44			
Target advisor-affiliated analyst	2	23	32			
Unaffiliated analyst	2	120	15			
<i>Average analyst recommendation after deal announcement</i>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Min</b>	<b>Max</b>	<b>Std.</b>
(1) Acquirer advisor affiliated analyst	44	2.07	2.00	1.00	3.00	0.74
(2) Target advisor affiliated analyst	25	2.26	2.00	1.00	4.00	0.83
(3) Unaffiliated analyst	122	2.47	2.50	1.00	5.60	0.77
Difference (1) – (3)	41	-0.25*	-0.20			
Difference (2) – (3)	25	-0.21	-0.02			

**Table 2**  
**Univariate Analysis of Acquirer Shareholders Voting**  
**and Advisor Target Equity Value Estimations**

Acquirer shareholder approval rate equals the number of outside shareholder shares that vote for a merger divided the total number of shares held by outside shareholders. We exclude shares held by executives, board of directors, and institutions affiliated with financial advisor from the calculation of outside shareholder holdings. Panel A includes 136 deals where both the acquirer and target firms have financial advisors. Focusing on deals with both acquirer and target advisors' estimations, Panel B includes 67 deals where both the acquirer and target advisors provide valuation for target firm equity. Target firm equity valuation (EV) ratio equals the difference between the midpoint of an advisor's valuation range and the offer price divided by the offer price. Two-sided p-value statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \* respectively.

<b>Acquirer Shareholder Approval Rate</b>					
<i>Panel A: Whether advisors give equity valuation estimations</i>					
		All cases	Financial advisor does not provide EV estimation (1)	Financial advisor provides EV estimation (2)	Difference (p-value) (2) - (1)
Target advisor	N	136	39	97	
	Mean	61.51%	55.20%	63.58%	8.38% (0.01) <sup>***</sup>
	Median	64.81%	58.74%	66.00%	7.26% (0.01) <sup>***</sup>
Acquirer advisor	N	136	53	83	
	Mean	61.18%	57.36%	63.61%	6.25% (0.03) <sup>**</sup>
	Median	63.92%	63.38%	64.95%	1.57% (0.08) <sup>*</sup>
<i>Panel B: Whether advisors give positive or negative equity valuation ratio (EV ratio)</i>					
		All cases	Financial advisor provides negative EV ratio (1)	Financial advisor provides positive EV ratio (2)	Difference (p-value) (2) - (1)
Target advisor	N	67	55	12	
	Mean	65.14%	63.90%	70.82%	6.92% (0.11)
	Median	66.92%	64.99%	71.81%	6.82% (0.08) <sup>*</sup>
Acquirer advisor	N	67	38	29	
	Mean	65.14%	64.01%	66.61%	2.60% (0.46)
	Median	66.92%	65.63%	69.53%	3.90% (0.17)

**Table 3**  
**Tobit Regressions of Acquirer Shareholder Voting**  
**on Advisor Target Equity Value Estimations**

The dependent variable is acquirer shareholder approval rate which equals the number of outside shareholder shares that vote for a merger divided the total number of shares held by outside shareholders. We exclude shares held by executives, board of directors, and institutions affiliated with financial advisor from the calculation of outside shareholder holdings. Target firm equity valuation (EV) ratio equals the difference between the midpoint of an advisor's valuation range and the offer price divided by the offer price. Category of equity valuation ratio equals -1 if an advisor does not provide valuation, 0 if EV ratio is negative, and 1 if EV ratio is positive. Financial advisor prior business relation with the acquirer firm equals one if this financial advisor has served as an advisor in previous mergers during the last three years, and zero otherwise. Thomson Financial reports each year the top 25 investment banks based on the aggregate value of completed merger transactions advised. We use the ranks of these 25 banks in the year before merger announcement to measure financial advisors' reputation. For banks not included in the top 25 list, we assign a value of 26. If a target or acquirer firm hires more than one advisor, we use the lowest rank (highest reputation). Acquirer announcement return is the cumulated abnormal return over the period of [AD-20, AD+1]. We use the CRSP value-weighted index as the benchmark. Acquirer industry adjusted ROA equals acquirer ROA (DATA13 / DATA6 from Compustat) minus industry median ROA in the last fiscal year before deal announcement. Relative size equals deal the transaction value from SDC divided by acquirer firm market value of equity. Stock payment dummy equals one if the deal is paid entirely with stocks, and zero otherwise. For each institution that owns both the acquirer and target stock, we calculate the institution's combined announcement return from cross ownership over [AD-20, AD+1]. We then multiply the combined return with the institution's percent ownership in the acquirer firm and sum this product for all institutions with such cross ownership. This variable is included in all regressions to control for these institutions' tendency to vote for the mergers (Matvos and Ostrovsky, 2008). Same industry dummy equals one if the acquirer and the target are from the same industry where industry is defined by Fama and French (1997) five industry classification, and zero otherwise. T-statistics are in parentheses. Statistical significance at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \*, respectively.

**Table 3 (continued)**  
**Tobit Regressions of Acquirer Shareholder Voting**  
**on Advisor Target Equity Value Estimations**

<b>Dependent Variable: Acquirer Shareholder Approval Rate</b>			
	(1)	(2)	(3)
Intercept	0.569 (7.25) <sup>***</sup>	0.520 (5.35) <sup>***</sup>	0.600 (7.90) <sup>***</sup>
Dummy for target advisor provides equity valuation	0.058 (2.02) <sup>**</sup>		
Target advisor equity valuation ratio		0.183 (2.17) <sup>**</sup>	
Category of target advisor equity value ratio			0.041 (2.10) <sup>**</sup>
Dummy for acquirer advisor provides equity valuation	0.030 (1.12)		
Acquirer advisor equity valuation ratio		0.055 (0.88)	
Ranking of acquirer advisor equity value ratio			0.022 (1.42)
Target advisor prior business relation with the acquirer	-0.118 (-1.40)	-0.171 (-2.48) <sup>**</sup>	-0.116 (-1.37)
Target advisor reputation	-0.001 (-0.86)	-0.004 (-2.07) <sup>**</sup>	-0.001 (-0.73)
Number of target advisors	0.021 (0.64)	0.096 (2.74) <sup>***</sup>	0.028 (0.84)
Acquirer advisor prior business relation with acquirer firm	-0.047 (-1.27)	-0.069 (-1.78) <sup>*</sup>	-0.052 (-1.39)
Acquirer advisor reputation	-0.001 (-0.49)	0.002 (0.93)	0.000 (-0.24)
Number of acquirer advisors	0.014 (0.41)	0.064 (1.74) <sup>*</sup>	0.027 (0.82)
Acquirer firm announcement return	0.078 (0.74)	0.222 (1.55)	0.074 (0.71)
Acquirer firm industry adjusted ROA	0.191 (2.26) <sup>**</sup>	-0.151 (-1.04)	0.212 (2.54) <sup>**</sup>
Relative size	-0.009 (-0.61)	-0.023 (-0.71)	-0.013 (-0.91)
Stock payment dummy	-0.030 (-1.15)	-0.023 (-0.74)	-0.031 (-1.18)
Institutional ownership*	0.082	-0.701	0.067
Combined return from cross-ownership	(0.33)	(-2.49) <sup>**</sup>	(0.27)
Toehold	-0.046 (-0.39)	-0.316 (-1.70) <sup>*</sup>	-0.050 (-0.42)
Same industry dummy	0.009 (0.21)	0.066 (1.26)	0.016 (0.40)
N	136	67	136
p value of chi square test	0.0116	0.0099	0.0104

**Table 4**  
**Univariate Analysis of Acquirer Shareholder Voting**  
**and Advisor EPS Forecast**

Acquirer shareholder approval rate equals the number of outside shareholder shares that vote for a merger divided the total number of shares held by outside shareholders. We exclude shares held by executives, board of directors, and institutions affiliated with financial advisor from the calculation of outside shareholder holdings. This table include 136 deals where both the acquirer and target firms hire financial advisors. Financial advisors' earnings forecasts refer to their prediction of whether the merger is accretive or dilutive to the acquirer firm earnings. When an advisor provides such forecast for multiple years, we use the prediction of the final year in the forecast period since it is least affected by one-time merger charges and can often be extrapolated into the future. Two-sided p-value statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \*, respectively.

<b>Acquirer Shareholder Approval Rate</b>					
<i>Panel A: Whether advisors give EPS forecast</i>					
		All cases	Financial Advisor does not provide EPS forecast (1)	Financial Advisor provides EPS forecast (2)	Difference (p-value) (2) - (1)
Target advisor	N	136	73	63	
	Mean	61.18%	57.78%	65.12%	7.34 (<0.01)***
	Median	63.92%	61.82%	66.27%	4.45% (0.02)**
Acquirer advisor	N	136	44	92	
	Mean	61.18%	58.83%	62.30%	3.46% (0.22)
	Median	63.92%	56.51%	65.74%	9.23% (0.07)*
<i>Panel B: Whether advisors give accretive EPS forecast</i>					
		All cases	Financial Advisor provides dilutive or no EPS forecast (1)	Financial Advisor provides accretive EPS forecast (2)	Difference (p-value) (2) - (1)
Target advisor	N	136	79	57	
	Mean	61.18%	58.52%	64.86%	6.33% (0.01)***
	Median	63.92%	62.41%	65.74%	3.33% (0.07)*
Acquirer Advisor	N	136	52	84	
	Mean	61.18%	60.10%	61.85%	1.75% (0.52)
	Median	63.92%	60.73%	65.74%	4.89% (0.15)

**Table 5**  
**Tobit Regressions of Acquirer Shareholders Voting**  
**on Advisor Earnings Per Share (EPS) Forecasts**

The dependent variable is acquirer shareholder approval rate which equals the number of outside shareholder shares that vote for a merger divided the total number of shares held by outside shareholders. We exclude shares held by executives, board of directors, and institutions affiliated with financial advisor from the calculation of outside shareholder holdings. Financial advisors' earnings forecasts refer to their prediction of whether the merger is accretive or dilutive to the acquirer firm earnings. When an advisor provides such forecast for multiple years, we use the prediction of the final year in the forecast period since it is least affected by one-time merger charges and can often be extrapolated into the future. Category of financial advisor EPS forecasts equals -1 if advisors does not provide opinion, 0 if their last EPS forecast provided is dilutive or neutral, and "1" if advisors give positive EPS forecast. Financial advisor prior business relation with the acquirer firm equals one if this financial advisor has served as an advisor in previous mergers during the last three years, and zero otherwise. Thomson Financial reports each year the top 25 investment banks based on the aggregate value of completed merger transactions advised. We use the ranks of these 25 banks in the year before merger announcement to measure financial advisors' reputation. For banks not included in the top 25 list, we assign a value of 26. If a target or acquirer firm hires more than one advisor, we use the lowest rank (highest reputation). Acquirer announcement return is the cumulated abnormal return over the period of [AD-20, AD+1]. We use the CRSP value-weighted index as the benchmark. Acquirer industry adjusted ROA equals acquirer ROA (DATA13 / DATA6 from Compustat) minus industry median ROA in the last fiscal year before deal announcement. Relative size equals deal the transaction value from SDC divided by acquirer firm market value of equity. Stock payment dummy equals one if the deal is paid entirely with stocks, and zero otherwise. For each institution that owns both the acquirer and target stock, we calculate the institution's combined announcement return from cross ownership over [AD-20, AD+1]. We then multiply the combined return with the institution's percent ownership in the acquirer firm and sum this product for all institutions with such cross ownership. This variable is included in all regressions to control for these institutions' tendency to vote for the mergers (Matvos and Ostrovsky, 2008). Same industry dummy equals one if the acquirer and the target are from the same industry where industry is defined by Fama and French (1997) five industry classification, and zero otherwise. T-statistics are in parentheses. Statistical significance at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \*, respectively.

**Table 5 (continued)**  
**Tobit Regressions of Acquirer Shareholders Voting**  
**on Advisor Earnings Per Share (EPS) Forecasts**

<b>Dependent Variable: Acquirer Shareholder Approval Rate</b>			
	(1)	(2)	(3)
Intercept	0.612 (7.77) <sup>***</sup>	0.614 (7.81) <sup>***</sup>	0.644 (8.32) <sup>***</sup>
Dummy for target advisor provide earnings forecast	0.050 (1.94) <sup>*</sup>		
Dummy for target advisor provide accretive earnings forecast		0.046 (1.82) <sup>*</sup>	
Category of target advisor earnings forecasts			0.025 (1.92) <sup>*</sup>
Dummy for acquirer advisor provide earnings forecast	0.016 (0.60)		
Dummy for acquirer advisor provide accretive earnings forecast		0.011 (0.41)	
Category of acquirer advisor earnings forecasts			0.007 (0.52)
Acquirer advisor reputation	-0.001 (-0.41)	-0.001 (-0.35)	-0.001 (-0.38)
Number of acquirer advisors	0.015 (0.45)	0.015 (0.44)	0.015 (0.44)
Acquirer advisor prior relationship with acquirer	-0.049 (-1.33)	-0.053 (-1.42)	-0.051 (-1.39)
Target advisor reputation	-0.002 (-1.25)	-0.002 (-1.28)	-0.002 (-1.28)
Number of target advisors	0.013 (0.40)	0.020 (0.60)	0.017 (0.50)
Target advisor prior relationship with acquirer	-0.083 (-0.98)	-0.089 (-1.04)	-0.086 (-1.01)
Acquirer announcement return	0.070 (0.66)	0.072 (0.68)	0.070 (0.66)
Acquirer industry adjusted ROA	0.182 (2.12) <sup>**</sup>	0.194 (2.28) <sup>**</sup>	0.187 (2.18) <sup>**</sup>
Relative size	-0.008 (-0.57)	-0.009 (-0.65)	-0.009 (-0.60)
Stock payment dummy	-0.032 (-1.21)	-0.031 (-1.18)	-0.032 (-1.20)
Institutional ownership*	0.138 (0.55)	0.152 (0.60)	0.144 (0.57)
Combined return from cross-ownership			
Toehold	-0.045 (-0.37)	-0.062 (-0.50)	-0.051 (-0.41)
Same industry dummy	0.004 (0.11)	0.004 (0.09)	0.004 (0.09)
N	136	136	136
p value for chi square test	0.0225	0.0285	0.0241

**Table 6**  
**Univariate Analysis of Acquirer Shareholders Voting**  
**and Affiliated Analyst Recommendations**

Acquirer shareholder approval rate equals the number of outside shareholder shares that vote for a merger divided the total number of shares held by outside shareholders. We exclude shares held by executives, board of directors, and institutions affiliated with financial advisor from the calculation of outside shareholder holdings. We classify an analyst as affiliated is she works for the same investment bank as the financial advisors. We obtain analyst recommendations from I/B/E/S and First Call, where analyst recommendations have five levels: 1 for “strong buy,” 2 for “buy,” 3 for “hold,” 4 for “underperform,” and 5 for “sell.” We classify an analyst recommendation as “initiate recommendation” if the analyst does not provide recommendation before a merger announcement but does so after the announcement and as “drop recommendation” she provides recommendation before but not after the announcement. This tables include 45 deals where both the target and acquirer financial advisors’ affiliated analysts make at least one recommendation during a period from three years before merger announcement to the shareholder voting date. Two-sided p-value statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels are indicated by <sup>\*\*\*</sup>, <sup>\*\*</sup>, and <sup>\*</sup>, respectively.

<b>Acquirer Shareholders Approval Rate</b>					
<i>Panel A: Whether affiliated analysts provide recommendation</i>					
		All cases	Affiliated analysts maintain or initiate recommendation	Affiliated analysts drop recommendation	Difference (p-value)
			(1)	(2)	(1) - (2)
Target-affiliated analyst	N	45	20	25	
	Mean	67.45%	70.78%	64.79%	5.99% (0.21)
	Median	70.44%	73.46%	67.81%	5.65 (0.10) <sup>*</sup>
Acquirer-affiliated analyst	N	45	26	19	
	Mean	67.45%	65.23%	70.50%	-5.27% (0.22)
	Median	70.44%	68.85%	71.52%	-2.67% (0.51)
<i>Panel B: Whether affiliated analysts improve recommendation</i>					
		All cases	Affiliated analysts initiate, upgrade, or do not change in recommendation	Affiliated analysts downgrade or drop recommendation	Difference (p-value)
			(1)	(2)	(1) - (2)
Target-affiliated analyst	N	45	19	26	
	Mean	67.45%	70.75%	65.04%	5.71% (0.23)
	Median	70.44%	73.75%	68.39%	5.36% (0.10) <sup>*</sup>
Acquirer-affiliated analyst	N	45	21	24	
	Mean	67.45%	69.51%	65.65%	3.86% (0.40)
	Median	70.44%	70.44%	70.50%	-0.06% (0.62)

**Table 7**  
**Tobit Regressions of Acquirer Shareholder Voting**  
**on Affiliated Analysts' Recommendations**

This tables include 45 deals where both the target and acquirer financial advisors' affiliated analysts make at least one recommendation during a period from three years before merger announcement to the shareholder voting date. Acquirer shareholder approval rate equals the number of outside shareholder shares that vote for a merger divided the total number of shares held by outside shareholders. We exclude shares held by executives, board of directors, and institutions affiliated with financial advisor from the calculation of outside shareholder holdings. We classify an analyst as affiliated is she works for the same investment bank as the financial advisors. We obtain analyst recommendations from I/B/E/S and First Call, where analyst recommendations have five levels: 1 for "strong buy," 2 for "buy," 3 for "hold," 4 for "underperform," and 5 for "sell." We classify an analyst recommendation as "initiate recommendation" if the analyst does not provide recommendation before a merger announcement but does so after the announcement and as "drop recommendation" she provides recommendation before but not after the announcement. In model (3), the category of analyst recommendations equals one if the analysts initiate recommendations after the deal announcement, two if they upgrade recommendations, three if they maintain the same recommendations, four if they downgrade recommendations, and five if they drop recommendations. In model (4), the category of analyst recommendations equals one if the analysts initiate recommendation after the deal announcement, two if their average recommendation upgrade is more than one level, three if their average upgrade is one level or less, four if they maintain the same recommendations, five if their average recommendation downgrade is one level or less, six if their average downgrade is more than one level, and seven if they drop recommendations. Financial advisor prior business relation with the acquirer firm equals one if this financial advisor has served as an advisor in previous mergers during the last three years, and zero otherwise. Thomson Financial reports each year the top 25 investment banks based on the aggregate value of completed merger transactions advised. We use the ranks of these 25 banks in the year before merger announcement to measure financial advisors' reputation. For banks not included in the top 25 list, we assign a value of 26. If a target or acquirer firm hires more than one advisor, we use the lowest rank (highest reputation). Acquirer announcement return is the cumulated abnormal return over the period of [AD-20, AD+1]. We use the CRSP value -weighted index as the benchmark. Acquirer industry adjusted ROA equals acquirer ROA (DATA13 / DATA6 from Compustat) minus industry median ROA in the last fiscal year before deal announcement. Relative size equals deal the transaction value from SDC divided by acquirer firm market value of equity. Stock payment dummy equals one if the deal is paid entirely with stocks, and zero otherwise. For each institution that owns both the acquirer and target stock, we calculate the institution's combined announcement return from cross ownership over [AD-20, AD+1]. We then multiply the combined return with the institution's percent ownership in the acquirer firm and sum this product for all institutions with such cross ownership. This variable is included in all regressions to control for these institutions' tendency to vote for the mergers (Matvos and Ostrovsky, 2008). Same industry dummy equals one if the acquirer and the target are from the same industry where industry is defined by Fama and French (1997) five industry classification, and zero otherwise. T-statistics are in parentheses. Statistical significance at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \*, respectively.

**Table 7 (continued)**  
**Tobit Regressions of Acquirer Shareholder Voting**  
**on Affiliated Analysts' Recommendations**

<b>Dependent Variable: Acquirer Shareholder Approval Rate</b>				
	(1)	(2)	(3)	(4)
Intercept	0.745 (6.93) <sup>***</sup>	0.829 (9.99) <sup>***</sup>	0.969 (7.48) <sup>***</sup>	0.936 (7.70) <sup>***</sup>
Dummy for target-affiliated analyst issue recommendations after deal announcement	0.089 (1.83) <sup>*</sup>			
Target-affiliated analyst recommendation changes after deal announcement		-0.021 (-1.86) <sup>*</sup>		
Category of target-affiliated analyst recommendations after deal announcement			-0.041 (-1.92) <sup>*</sup>	
Category (multiple) of target-affiliated analyst recommendations after deal announcement				-0.026 (-1.86) <sup>*</sup>
Dummy for acquirer-affiliated analyst issue recommendations after deal announcement	-0.006 (-0.13)			
Acquirer-affiliated analyst recommendation changes after deal announcement		0.002 (0.18)		
Category of acquirer-affiliated analyst recommendations after deal announcement			-0.007 (-0.38)	
Category (multiple) of acquirer-affiliated analyst recommendations after deal announcement				-0.002 (-0.13)
Target advisor reputation	0.001 (0.19)	0.001 (0.35)	0.001 (0.14)	0.001 (0.14)
Acquirer advisor reputation	0.005 (1.05)	0.005 (1.13)	0.006 (1.37)	0.006 (1.27)
Acquirer firm announcement return	0.082 (0.41)	0.112 (0.55)	0.168 (0.79)	0.160 (0.75)
Acquirer industry adjusted ROA	0.275 (1.30)	0.281 (1.33)	0.254 (1.20)	0.263 (1.24)
Relative size	-0.012 (-0.86)	-0.011 (-0.81)	-0.013 (-0.94)	-0.013 (-0.92)
Stock payment dummy	0.000 (0.00)	0.002 (0.03)	-0.008 (-0.13)	-0.007 (-0.11)
Institutional ownership*	0.572 (1.71) <sup>*</sup>	0.568 (1.69) <sup>*</sup>	0.481 (1.41)	0.471 (1.38)
Combined return from cross-ownership				
Toehold	-0.083 (-0.57)	-0.095 (-0.65)	-0.067 (-0.46)	-0.079 (-0.54)
Acquirer advisor prior business relation with the acquirer	-0.119 (-2.37) <sup>**</sup>	-0.126 (-2.53) <sup>**</sup>	-0.129 (-2.66) <sup>***</sup>	-0.128 (-2.61) <sup>***</sup>
Target advisor prior business relation with the acquirer	-0.032 (-0.28)	-0.036 (-0.32)	-0.050 (-0.44)	-0.040 (-0.35)
Same industry dummy	-0.129 (-1.51)	-0.147 (-1.74) <sup>*</sup>	-0.119 (-1.36)	-0.126 (-1.46)
N	45	45	45	45
p value for chi square test	0.1019	0.1079	0.1089	0.1123