

Do Managers Listen to the Market?*

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Abstract

Stock prices may provide valuable information for a public firm's managers. In this paper, we examine whether managers listen to the market in making major corporate investments, and whether agency costs and corporate governance mechanisms explain managers' propensity to listen. We find that, on average, managers listen to the market: they are more likely to cancel investments when the market reacts unfavorably to the related announcement. Further, we find evidence that managers' propensity to listen is related to agency costs: firms with more outside monitors, smaller boards and firms with higher pay-performance sensitivities are more likely to listen to the market. In addition, we find that some governance provisions thought to entrench target management appear to deter bidder management from completing an unwanted acquisition.

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On November 20, 2000, the Wall Street Journal reported that Coca-Cola was in talks to acquire Quaker Oats.¹ Shortly thereafter, Coca-Cola confirmed such discussions. The market reacted negatively, sending Coke's shares down almost 8% on November 20th, and more than 2% on November 21st. The drop represented more than \$15 billion for Coke's shareholders. Coca-Cola management brought the deal to its board on November 21st. Late that night, Coca-Cola's board announced that it had rejected the proposed acquisition. On November 22, Coca Cola's shares rebounded almost 8%.

The above events highlight the two major objectives of this paper. First, do managers listen to the market? That is, do they consider how the market reacts to an announced decision in determining their final course of action? While we do not know for sure what drove the above outcome, it appears that the board considered the significant wealth loss to shareholders in rejecting the transaction. Second, perhaps more importantly, do agency costs affect the extent to which managers pay attention to the market's assessment of the proposed investment? For example, agency theory would predict that managers with higher pay-performance sensitivities and those in firms with more attentive monitors are more likely to listen to the market. In the Coca-Cola example, Warren Buffett, Coca-Cola's largest shareholder and member of the board, "was said to have deep reservations about the all-stock deal", and arguably had a strong influence on the outcome.² The purpose of this paper is to examine these issues.

While this is not the first study to empirically examine the correlation between investment decisions and stock returns, we know of none that directly examine how agency problems affect a manager's propensity to listen to the capital markets. Thus, we view our

¹ "Quaker Oats Holds Talks for Sweeter Deal --- Coca-Cola Is Said to Lead Danone in Bid to Claim Prize of Gatorade Brand", Wall Street Journal, November 20, 2000, page A3.

² "Coke Breaks Off Talks to Acquire Quaker --- Move Is a Blow to Chairman, A Sign of the Board's Active Oversight Role", Wall Street Journal, November 20, 2000, page A3.

contribution as two-fold. First, we complement existing research by providing additional evidence on the extent to which managers listen to the market. Our broad sample allows us to examine this issue in more detail, controlling for a wealth of factors already shown to affect the outcome of a firm's investment decisions. Second, we provide new evidence on the extent to which agency problems affect manager's propensity to listen.

The reaction of stock prices to various events is an extremely valuable source of information. Students of economics and finance routinely use such information in "event studies" to study numerous aspects of the behavior of firms and markets. At the same time, managers are increasingly turning to artificial markets as sources of information to aid in decision making (McMillan, 2002). Indeed, one of the purported benefits of having publicly traded stock is in the information it provides to managers. Managers can observe how markets react to their decisions to gain a better understanding of whether the market views their announced investments as value-enhancing or value-reducing. This not only provides useful information to managers, but also may prove an effective monitoring mechanism.³ Given this revealed preference for information generated in markets and the availability of voluminous information from markets, it would be surprising if managers did not use the information generated in securities markets as an input into decision making. In this paper, we examine how managers use such information in decision making.

There is another sense in addition to information in which the effect of announced decisions on stock prices is important. A corporation's stock value is not only a piece of information, it is also the objective of the utility function of the company's residual claimants. Thus, managers might respond to how decisions affect stock prices because it is in the interest of

³ Grinblatt and Titman (2003). See pp. 79-81 for a discussion of the costs and benefits of going public.

their principals, the owners of the company, for them to do so. However, since Adam Smith (1776), economists have recognized the conflict of interest between managers and owners in diffusely owned companies. Berle and Means (1933) also addressed this “separation of ownership and control”, while Jensen and Meckling (1976) created the modern theory of corporate governance and of agency theory by focusing on this same issue. Thus, although stockholders (principals) might want managers to respond to markets, managers might have an incentive not to do so.

Economic theory suggests competing rationales for undertaking major corporate investments. First, managers, acting in the best interests of the owners, invest in all positive NPV projects to maximize the value of the firm. These decisions should lead to increases in firm value, as measured in securities markets. However, managers may also have incentives that run counter to firm value maximization. Agency theory predicts that managers may undertake investments to pursue their own objectives, possibly with the incentive to grow the firm to extract rents in the form of greater power, prestige and remuneration associated with managing a larger firm (e.g., Jensen (1986)).

Our evidence is generally consistent with our hypotheses. In a sample of large investments proposed by corporations, we find that managers do indeed listen to the market. After controlling for other factors known to affect the outcome, we find that managers are more likely to cancel investments when the market reacts unfavorably to the investment’s announcement. Further, we find evidence that firms with more outside monitors and firms where the CEOs have higher pay-performance sensitivities are more likely to listen to the market.

The paper is organized as follows. In section I, we discuss related research, develop our hypotheses, and provide our empirical predictions. We provide an overview of our sampling

methodology and the data in section II. In section III, we present empirical results on deal completion and whether managers listen to the market, on average, and in section IV we examine whether agency theory can explain whether managers pay attention to the market when making major investment decisions. We conclude in section V with a brief discussion of our results and their implications.

I. Background, motivation and empirical predictions

Our research fits into several broad research areas. The first is the literature on learning and information flows between firms and capital markets. Second is how corporate governance mechanisms can help control agency problems. Finally, our work relates to the broader literature on mergers and acquisitions, since we chose to sample M&A transactions for our empirical tests.

A. Information flows from the capital markets back to the firms

There are a wealth of anecdotes in the popular press that imply that managers and their investors pay attention to how the market reacts to their decisions. The Coca-Cola example noted in the introduction is but one example. In another example, Kodak recently announced a major shift in focus away from its traditional film business in favor of the faster growing digital printing world. Following this decision, its stock price faltered and institutional investors began pressuring Kodak to roll back its plans.⁴

There is surprisingly little large sample research examining whether firms pay attention to capital market reactions when making investment decisions. However, many argue that capital market prices should, at least on occasion, contain information not otherwise known to

⁴ Investors Seek to Rewind Kodak, Wall Street Journal, October 21, 2003, by Gregory Zuckerman and James Bandler.

managers (e.g., Dye and Sridhar (2002)). Of the few studies that do empirically examine this issue, we know of none that directly examine how agency problems affect a manager's propensity to listen to the capital markets.

Jennings and Mazzeo (hereafter JM) examine the association between stock returns at the announcement of an acquisition and management's subsequent actions. They argue that whether managers use the market-provided information depends largely on the private information they hold. Roll (1986), for example, argues that managers discount public information relative to their private information when making acquisition bids. For a sample of 188 bids from 1979 to 1987, JM find very little evidence consistent with the hypothesis that bidder management finds share price movements informative.

Luo (2005), on the other hand, in a larger sample and over a different time period (over 2,000 M&A transactions in the 1990s), does find evidence that managers find share price movements informative. He concludes that merging companies extract information from the market reaction and later consider it in closing the deal. Further, he argues that firms have a greater incentive to learn from the market when canceling the deal is easier, and when the market has additional information that the firm does not have.

Other related papers that examine the correlation between returns and corporate investments include Morck, Shleifer and Vishney (1990), Giammarina, Heninkel, Hollifield and Chen, Golstein and Chang (2003). Morck, Shleifer and Vishny find a correlation between bidder returns and managerial objectives. They find that bidder returns are lower when a firm diversifies, buys a rapidly growing target, or performed poorly prior to the merger. They conclude that managerial objectives may drive acquisitions that reduce bidding firms' value. Giammarina, Heninkel, Hollifield and Li find that the market reaction to a seasoned equity

registration influences the manager's final decision. Chen, Golstein and Chang specifically examine the effect of price informativeness on the sensitivity of investment to stock prices. They conclude that the degree of informativeness is positively correlated with the sensitivity of investment to stock price.

Our paper complements the above research in that we also address the question of whether managers consider the market's reaction to an announced decision in determining their final course of action. We expand upon these papers in several ways. First, we examine the affect agency costs may have on a manager's desire to pay attention to the market's advice. Agency theory predicts that managers may undertake investments to pursue their own objectives, possibly with the incentive to grow the firm to extract rents in the form of greater power, prestige and remuneration associated with managing a larger firm. Jennings and Mazzeo conjecture that their failure to find a relation between stock price movements and subsequent actions is due either to the fact that managers' information subsumes investors' information, or that bidder management suffers from severe hubris, eliminating their incentive to learn. However, they do not test this theory.

Second, we examine a broader set of investments over a longer time period and employ different methodologies due to our different objectives. Since we are primarily concerned with how the investment affects the investor company's shareholders (i.e., the bidder's shareholders in the case of mergers), we need not restrict our sample to transactions where we can estimate the synergy of the transaction (e.g., both the bidder and target are publicly traded). For example, consider a merger that generated substantial synergistic benefits, but the bidder, due to agency costs, overpays. In that case, the bidder's shareholders would be better off if the deal were cancelled. In contrast, Luo (2005) focuses on the market-estimated synergy of the transaction,

assumes frictionless negotiations, and treats the two sides (bidder and target) as one economic agent. If the market-estimated synergy is positive, he assumes that, through efficient negotiation, the parties will find a way to close the deal. Since we are primarily concerned with how agency costs affect the outcome, we must relax this assumption in our model. That is, we allow for the possibility that one side may favor following through on the investment even if it turns out to be a negative NPV project for their shareholders.⁵

B. Agency costs and corporate governance

There are several mechanisms through which shareholders control agency problems, which we broadly refer to as Corporate Governance (CG). Internal mechanisms include ownership incentives, incentive compensation, oversight by the board of directors, and other corporate governance mechanisms (e.g., Gompers, Ishii and Metrick (2003)).

B.1. Ownership incentives

Share ownership by potential monitors aligns their interest with shareholders providing them with greater incentive to monitor management, encouraging them to make decisions in the best interest of shareholders. Perry (2000) shows that boards that own more stock exert greater effort in monitoring management. Wu (2000) argues that large shareholders (blockholders) have greater incentives to monitor management. Gillan and Starks (2000) suggest that active institutional owners can be successful at gaining support for shareholder proposals. This implies that managers of firms that have greater holdings by outsiders are more likely to listen to the market, *ceterus paribus*.

⁵ However, we do examine the market-estimated synergy in our sample transactions where we have sufficient data (e.g., both bidder and target are publicly traded).

The effect of insider ownership on performance is less clear. For example, Hermalin and Weisbach (1998) argue that CEOs with greater bargaining power can better extract rents from shareholders. Shivdasani and Yermack (1999) and Baker and Gompers (2001) provide support for such a claim. On the other hand, Jensen and Meckling (1976) show that managers with low ownership stakes may choose projects that maximize their own utility at the expense of shareholders. Thus, the impact of insider ownership on managers' propensity to listen to the market is left as an empirical question.

B.2. Pay-performance sensitivity

CEO's with pay that is tied to shareholder value creation are more likely to act in the best interest of shareholders. A wealth of theoretical and empirical research supports such a view.⁶ Thus, we expect managers to listen to the market more if their pay is more sensitive to performance. For estimating pay-performance sensitivity, we define *DELTA* as the estimated change in total pay given a 0.01 change in stock value (stock and stock options) per Core and Guay (2002).

B.3. Board of directors

A major responsibility of the board of directors is to monitor management to ensure that they act in the best interests of the shareholders. We expect that independent boards and boards with incentives closely aligned with shareholders to be more effective monitors. We consider several variables to proxy for these attributes.

Jensen (1993) and Lipton and Lorsch (1992) suggest that large boards can be less effective than small boards because when boards become too big, agency problems increase and

⁶ Murphy (1999) provides a fairly comprehensive survey of the literature on executive compensation.

the board becomes more symbolic and neglects its monitoring and control duties. Yermack (1996) finds that smaller boards are more effective at removing a poorly performing CEO and in negotiating efficient compensation contracts. He argues that smaller boards are able to reach decisions more quickly and are less subject to management influence.⁷ Thus, we expect managers of firms with smaller boards to have a higher propensity to listen to the market than those with larger boards.

Research suggests that boards with more outside directors more effectively monitor management. For example, Weisbach (1988) finds that firms with more outside directors are more likely to fire a poorly performing CEO. Byrd and Hickman (1992) argue that outsider-dominated boards make better acquisition-related decisions. As such, we expect firms with more outside directors to listen to the market more often than those with insider dominated boards.

Existing literature has found mixed results with respect to the issue of CEO duality (where the CEO and chairman of the board are the same person). Brickley, Coles and Jarrell (1997) find the costs of separating the CEO and the Chairman outweigh the benefits for most large firms. Goyal and Park (2002), on the other hand, show that boards with dual leadership are less likely to replace a CEO after poor firm performance. However, even if separating the COB and CEO is not cost justified (e.g., Brickley, Coles and Jarrell), combining these posts does reduce board independence, potentially reducing the effectiveness of the board's role as monitors. Combining these posts also potentially increases the CEO's power. Thus, we expect managers at firms where the CEO and COB positions are combined to be less likely to listen to the market.

⁷ Beiner, Drobertz, Schmid and Zimmerman (2004) examine the issue of whether board size is an independent corporate governance mechanism, and conclude that it is indeed an independent governance mechanism out of several from which a firm can choose.

B.4. Other corporate governance mechanisms

Gompers, Ishii and Metrick (2003) argue that shareholder rights vary across firms. They construct a “Governance Index” (hereafter GIM index) from a set of 24 provisions tracked by the Investor Responsibility Research Center (IRRC) to proxy for a firm’s level of shareholder rights (about 1,500 U.S. firms). They conclude that firms with the strongest shareholder rights outperform firms with weak shareholder rights on a number of dimensions. Bebchuk, Cohen and Farrell (2004) create an “Entrenchment Index” using 6 of the 24 provisions in the GIM index. They argue that these 6 are the key provisions that matter, and suggest that firms with more entrenched management, as measured by their index, are worth less (and perform more poorly) than other firms. They also argue that the 18 other provisions tracked by IRRC are unrelated to value or stock returns over their sample period (1990-2003).

Following this research, we consider how these other governance mechanisms affect a firm’s propensity to consider the market’s reaction in making its investment decisions. On the surface, one might expect firms with high entrenchment index scores (more entrenchment management) to pay less attention to the market. However, upon inspection of the provisions that make up this index, we actually predict the opposite in our setting. The 6 provisions that make up the index are: staggered boards, limits to shareholder bylaw amendments, supermajority requirements for mergers, supermajority requirements for charter amendments, poison pills and golden parachutes.⁸ These provisions almost uniformly protect target managers from unwanted takeovers. Hence, they are viewed as entrenchment provisions. However, the affect is quite different for bidders. For example, the supermajority requirements for mergers may keep bidder management from completing a merger that the bidder’s shareholders oppose. That is, if the

⁸ For detailed discussion of these provisions, see Bebchuk, Cohen and Ferrell (2004).

market reacts negatively to an announced acquisition, bidder management may have no choice but to “listen” to the market because it will be more difficult to get the merger approved than if they weren’t subject to these provisions. In our empirical analysis, we examine the entrenchment index, as well as the key individual provisions that make up the index.

C. Related literature on merger outcomes

In defining our control variables, we draw on the broader literature on mergers and acquisitions.

Walkling (1985) looks at a sample of cash tender offers. He finds that a competing offer, the ownership position in the target by the bidder before the acquisition proposal, and the existence of resistance by target management are statistically related to the success or failure of the offer. Empirical evidence (e.g., Asquith, Bruner and Mullins (1987), Huang and Walkling (1987), Travlos (1987)) finds differences in mean returns across payment type (cash vs. stock) suggesting that the bidder’s interpretation of the market’s response may be influenced by the payment type. In a recent study, Bates and Lemmon (2003) find that method of payment, litigation, the presence of a founding family member, and deal attitude affect the probability that a deal is completed. They also show that the presence of “target termination fees”, sometimes called “breakup” fees, significantly increases the probability that a deal is completed. Burch (2001) examines lockup provisions and finds that lockups deter competition for a target, implying a higher likelihood of deal completion. Schwert (2000) finds that tender offers are more likely in hostile environments, which we would expect to be associated with more cancelled deals. On the other hand, Bates and Lemmon (2003) show that the probability of deal completion increases when deals are structured as tender offers. They suggest that this is due, in

part, to the fact that very few deals in their sample are identified as hostile. In addition, they control for deal attitude in their model.

D. Summary of hypotheses

The above discussion suggests the following testable hypotheses.

H1: Managers will “listen to the market” when making major investment decisions:

Firms are more likely to cancel major investments when the market views them negatively and complete them when the market views them positively.

H2: Managers are more likely to listen to the market when they are more carefully monitored and when managers have interests more closely aligned to shareholders.

II. Data and research methodology

Our sampling objective is to build a sample of publicly traded firms where management announced significant investment-related activity, and later either cancelled or completed the activity. Our primary hypotheses relate to differences across those two outcomes. That is, we want to examine the extent to which managers take into account market responses to announcements in making major corporate investment decisions. We can restrict our analysis to those investments that are significant from the perspective of the firm because only these investments will have sufficient impact on securities prices to be detected through an event study. To this end, we choose corporate mergers and acquisition activity (M&As). M&As are a useful laboratory for our experiment for several reasons. First, these transactions often represent significant corporate investments and are externally observable. Second, management arguably exercises substantial control over these investments in terms of completing, canceling or modifying the deal proposal. Third, we can readily sample corporate M&A transaction from

Securities Data Corporation's (SDC) M&A database. Finally, since M&As have been studied extensively, we have a wealth of literature on which to draw in benchmarking our results and identifying control variables. This is particularly important in our setting because to isolate whether managers considered the market's reaction in making their decision, we need to control for factors known ex ante by the market and the managers that affect the probability of the investment being consummated.

We identified 8,821 M&A transactions on the SDC M&A database from 1978-2001 where the acquirer was a public company traded on the NYSE, AMEX or NASDAQ, the deal value was greater than \$100 million, and the deal status is either completed or withdrawn ("cancelled"). We lose 1,882 observations that have insufficient CRSP coverage, leaving a sample of 6,939 observations.⁹ To ensure that the transaction represents a significant investment for the firm, we further limit the sample to those transactions that represent 10% or more of the firm's equity market value prior to the announcement. This eliminates an additional 2,516 observations, leaving a final sample of 4,399 observations. Of these, 3,757 were completed and 642 were withdrawn.¹⁰ For some tests, we lose additional observations due to lack of data on key explanatory variables.

Table I provides time series and industry make-up of the sample. Panel A reports the distribution of the sample across years, and Panel B shows the distribution of the sample across industries. Although the sample covers 1978 through 2001, the bulk of the transactions (approximately 95%) were announced between January 1984 and December 2001.

Approximately 85% of the sample deals are completed and 15% are cancelled. Annual

⁹ Each observation needs valid returns over the [0,+1] window surrounding the announcement, as well as sufficient CRSP coverage to estimate a market model abnormal return over that horizon.

¹⁰ For robustness, we replicate our analysis on the larger sample of 6,939 observations, 6,145 of which were completed and 794 withdrawn. Results are similar to those for the smaller sample, with a slight reduction in power.

cancellation rates are substantially higher in the 1980s than in the 1990s. The largest industry representation is in 2-digit SIC code 67 (Holding company, other investment offices, 10.8% of the sample). However, the sample covers a broad range of industries.

III. Announcement period returns and transaction outcome

In this section, we provide an examination of whether the market’s reaction to a proposed investment significantly affects whether the investment is ultimately undertaken or cancelled – that is, whether or not it appears that decision makers “listen” to the market. By “listening” to the market we mean that if the market responds favorably to a major corporate investment, then management is more likely to complete the investment, and if the market views the investment negatively, then managers are more likely to cancel the investment. We first provide a univariate analysis, and then a series of multivariate analyses. We estimate the announcement period cumulative abnormal returns (CARs) both for completed and cancelled investments. We then compare these CARs to determine if managers are more likely to cancel investments that the market views negatively, and complete those that the market views positively.

A. Announcement period abnormal returns

To test our primary hypothesis, we need to estimate abnormal returns around the announcement of a major corporate investment. We estimate the abnormal returns using a market model regression as follows¹¹:

$$AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt} \quad (1)$$

Where R_{it} is the day t return for firm i , R_{mt} is the corresponding return on the value-weighted CRSP index (results are similar when we use an equal weighted benchmark) and $\hat{\alpha}_i$ and $\hat{\beta}_i$ are

¹¹ We utilize Eventus® software to estimate the event period CARs.

firm i 's estimated market model parameters estimated over the 200 day period ending 35 days prior to the announcement. Day 0 is defined as the date the transaction was announced. We then estimate each firm's cumulative abnormal return (CAR) by summing the individual daily abnormal returns over the relevant time horizon:

$$CAR_i = \sum_{t=1}^T AR_{it} \text{ for each firm } i \quad (2)$$

Table II compares the CARs for completed and cancelled transactions for various event windows. We define the difference as the CAR for the completed transactions less the CAR for the cancelled transactions. We report z -statistics assessing whether the abnormal return for each subsample is significantly different from zero based on Boehmer, Musumeci and Poulsen (1991). However, our primary hypotheses relate to the differences in CARs across the subsamples, not to their level. Hence, we report differences across the subsample means, and test those differences with a standard t -test, reporting corresponding two-tailed p -values in parentheses.

We report returns over the pre-event window for completeness, and to determine if there is any systematic difference in information "leakage" across the two samples, which we would need to control for it in our empirical tests. Further, with respect to our hypotheses, we would not expect the pre-announcement CAR to be informative for those deals where they actually made a bid because we expect the pre-announcement CAR to affect managers' behavior *before* they make an acquisition bid. Thus, our hypothesis would predict no difference in the pre-announcement period returns across completed and cancelled deals. As it turns out, for the period just preceding the transaction [-30, -1], the difference across the subsamples is statistically indistinguishable from zero at conventional levels. However, since it does appear economically meaningful (almost 1%) we will control for it in our empirical tests.

The announcement period and post-announcement abnormal returns are significantly higher for transactions that were completed compared to those that were cancelled. Over the 2-day announcement period $[0,+1]$, the mean difference is positive 1.3%, statistically significant at the 1% level.¹² This is consistent with the hypothesis that deals viewed less favorably by the market are more likely to be cancelled. The result holds for the days following the announcement as well: completed transactions have a 1.5% higher CAR, on average, than cancelled transactions over the $[+2,+30]$ event window, statistically significant at the 3% level. For completeness, we also report the difference for the full $[0,+30]$ day post-announcement window, which shows that returns are almost 2.8% higher in completed deals than in cancelled deals over the 30 days following the acquisition announcement.

B. Multivariate Analysis

Although Table II's results are consistent with stock market reactions affecting management decision making, they represent only univariate comparisons. As Luo (2005) points out, the univariate relation is not a sufficient condition to conclude that managers listened to the market. He argues that there are two other possible explanations consistent with such a relation. First, he describes a "probability feedback" effect where the deal completion probabilities differ across events causing a spurious correlation between the announcement period return and deal completion. Second, higher quality deals (from the market's and management's perspective) may have higher market reactions and also higher completion probabilities, which he refers to as the "common-information" effect. Luo (2005) controls for these effects by focusing on the transaction's market-estimated synergy at the announcement. He assumes frictionless negotiations, and treats the two sides (bidder and target) as one economic agent. If the market-

¹² Results are similar when we use a $[-1,+1]$ announcement period window.

estimated synergy is positive, he assumes that, through efficient negotiation, the parties will find a way to close the deal. While we also control for other factors that affect deal completion probabilities, we choose a different approach for several reasons. First, since we are primarily concerned with how agency costs affect the outcome, we must allow for the possibility that one side may choose to make an investment even if it is value reducing for their shareholders. We focus on how the investment affects the investor company's shareholders (i.e., the bidder's shareholders in the case of mergers). For example, even if a merger generates substantial synergistic benefits, if the bidder pays too much, the bidder's shareholders will suffer. In that case, the bidder's shareholders would be better off if the deal were cancelled. In addition, Luo's approach requires that the target company be publicly traded. By relaxing this restriction, we are able to examine a broader set of investments, potentially improving our understanding of what drives managers' propensity to listen to the market.

B.1 Description of control variables and univariate comparisons

In order to isolate whether managers consider the market's reaction in making investment decisions, we must control for other factors that are known to affect deal completion probabilities. Table III compares various characteristics for the deals and associated firms across the completed and cancelled subsamples. The factors are drawn from existing M&A research. Size and book-to-market are for the bidder and are computed using data from CRSP and Compustat. Other deal characteristics' data and variable definitions come from SDC.

Firm size is not statistically different for firms that completed deals compared to those that cancelled them. Firms that complete deals have statistically lower book-to-market ratios than firms that cancel transactions. Finally, the percentage toehold is not different across completed and cancelled deals.

The variable “lockup of target shares” is set to one when the target grants the acquirer an option to purchase stock or assets (e.g., a division or subsidiary) in order to make a competitive bid more expensive or less attractive. Burch (2001) finds that lockups deter competition. Thus, we expect deals that include a lockup of target shares are less likely to be cancelled. Consistent with this, we find that 10% of completed deals and only 5% of cancelled deals include a lockup. The difference is statistically significant at the 1% level.

The “tender offer” indicator variable is set to 1 if the form of the bid is a tender offer. Schwert (2000) finds that tender offers are more likely in hostile environments, which we would expect to be associated with more cancelled deals. On the other hand, Bates and Lemmon (2003) show that the probability of deal completion increases when deals are structured as tender offers. They suggest that this is due, in part, to the fact that very few deals in their sample are identified as hostile. In addition, they control for deal attitude in their model. Table III shows a higher incidence of tender offers in cancelled deals. This univariate result is consistent with Schwert. However, it will be important to control both for tender offer as well as deal attitude in our empirical analysis.

We set the “stock offer” variable to 1 if at least some stock was used in the bid. This is to control for method of payment. In our sample, the incidence of stock offers is similar across completed and cancelled deals.

The “compete” dummy is set to 1 if a third party launched an offer for the target while this original bid was pending. As expected, deals facing competition are more likely to have been cancelled than deals with no competition.

The “friendly” dummy is set to 1 if the deal is friendly and 0 otherwise. In a friendly deal, the target board recommends the offer. Given the cooperation that this type of transaction

implies, we expect that these transactions are less likely to be cancelled. In our sample, almost 90% of the completed deals, and just over 60% of the cancelled deals, were classified as friendly; the difference is significant at the 1% level.

The litigation dummy equals 1 if the players launched litigation as a result of the transaction. As one might expect, a higher proportion of the cancelled deals involved litigation as compared to the completed deals.

The family firm indicator is set to 1 when a family or group of families controls at least 20% of the target company. Family firm is also set to 1 if either a founding family or a non-founding chairman owns a substantial stake (defined as 20 %). Morck, Shleifer and Vishny (1998) find that a founding-family presence in the target's top management team increases the likelihood of a friendly transaction, which may be related to the probability of deal completion. Although the incidence is relatively small in our sample, deals that involve family firms represent a somewhat higher proportion of cancelled than completed deals.

Bates and Lemmon (2003) show that the presence of "target termination fees", sometimes called "breakup" fees, significantly increases the probability that a deal is completed. They find an insignificant relation between "bidder termination fees" and the probability that a deal is completed. Our univariate tests show a higher incidence of both types of termination fees for completed deals. However, for bidder termination fees, the difference is only marginally significant.

This "defense" dummy is set to 1 when the target employs a defensive tactic to countervail a takeover attempt by an unwanted suitor. Examples include poison pills, lock-ups, greenmail, white knights, etc. We expect that these transactions are more likely to be cancelled,

implying a higher incidence of such tactics in cancelled deals. Univariate results support such a conjecture.

Walkling (1985), Betton and Eckbo (2000) and Singh (1998) suggest that deal outcomes are associated with the percent of equity held by the bidder prior to the control contest (the bidder's toehold). Bates, Lemmon and Linck (2004) show that completion rates are somewhat lower in minority (less than 50%) toehold deals and higher in majority (greater than 50%) toehold deals. We define toehold as the percent of equity held by the bidder at the time the transaction is announcement. Our univariate results suggest that the average toehold is similar across completed and cancelled deals. However, the proportion of deals where the bidder has a non-zero toehold is greater for cancelled deals than in those that are ultimately completed.

The public target dummy equals 1 if the target is a public company and 0 otherwise. We expect deals with private targets to face less obstacles, and hence, be completed more often. The univariate test is consistent with this conjecture: just over 50% of the completed deals involve public targets, while 75% of the cancelled deals involve public targets (i.e., less than 25% involve private targets).

B.2. Multivariate estimation

Table IV reports logistic regression models explaining the outcome of the transaction, controlling for the above factors that have been previously shown to affect deal outcomes. The dependent variable is 1 if the transaction is completed and 0 if it is withdrawn (cancelled). The key explanatory variables are the announcement period and post-announcement CAR. Control variables are as described above.

Our first hypothesis predicts that the higher the announcement-period CAR, the more likely the deal will be completed. That is, the more favorably the market reacts to an announced

investment, the more likely it is that managers will complete the investment if they are “listening” to the market. Thus, we predict a positive coefficient on the announcement period return. We also include for the pre-announcement CAR [-30, -2] and the post-announcement CAR [+30, +2]. We expect the pre-announcement CAR to affect managers’ behavior *before* they decide to make an acquisition bid. Thus, we would not expect it to be informative for those deals where they actually made a bid. We expect a positive coefficient on the post-announcement return, since this information is available to managers before they finalize the deal. As with the announcement period CAR, if managers find stock prices informative, then we would expect the stock returns just following the announcement to be positively related to deal completion.

The first model reports the results including the pre-announcement CAR, the announcement-period CAR and the post-announcement CAR, and the second model combines the announcement-period CAR and post-announcement CAR into one variable. The models also incorporate the control variables described above. Results are consistent with our hypothesis. The coefficient on the announcement-period and post-announcement CAR (or the combined value thereof) are positive and significant. In models 3 and 4, we replicate the analysis for the 1990-2001 subsample. We report this time period separately for a couple reasons. First, some of the recent research against which we benchmark covers data only since 1990. Second, much of the data that we need for later tests is only available for the later time periods. Results are similar to those found in the full sample.¹³

¹³ In unreported results, we also estimated similar model to those reported in the table except we used the combined bidder plus target abnormal return instead of the bidder’s abnormal return (similar to Luo (2005)). The combined abnormal return was not significantly different from zero in any of our specifications.

Results for the control variables are generally consistent with the univariate results of Table III and with previous research. Tender offers, friendly deals, deals with target share lockups, deals with target termination fees and deals from larger bidders are more likely to be completed. Stock deals, deals where bidders face competition or litigation, where the target puts up a defense or the target is public, and deals from higher book-to-market bidders are more likely to be cancelled.

The results in Table IV are consistent with the hypothesis that managers listen to the market in making major investment decisions. The announcement period and post announcement CARs are positive and significant in all specifications suggesting that managers are more likely to cancel investments when the market reacts unfavorably to the related announcement. Based on the model 1 results, and holding all other variables constant at their mean values, a one standard deviation decrease in both the announcement period and post-announcement CAR is associated with an approximately 3.4 percentage point decrease in the probability that a deal will be completed (not reported in the table).

IV. Do managers listen to the market?

The previous section provides evidence consistent with managers listening to the market, on average. While this doesn't necessarily prove a causal relation (i.e., that the announcement return caused managers to change their behavior), we did attempt to control for factors other than market returns that are known to affect deal completion probabilities.¹⁴

¹⁴ This approach has the disadvantage of not controlling for unknown factors that may ex ante affect the probability of completion. An alternative approach would be that used by Luo (2005), in which he calculates a synergy using an iterative process to zero in on the market's estimate of the transaction's synergy if the two companies would definitely merge. He uses this measure to control for "probability feedback" and "common information" to help infer causality. Empirically, however, his estimate is correlated with the combined bidder and target market reaction to the tune of 98%. Thus, in transactions where we have sufficient information to estimate synergy (e.g., both the bidder and target are publicly traded), we proxy for synergy using the combined bidder and target market reaction.

In this section, we test our hypotheses as to how corporate governance and agency problems affect whether managers listen to the market. On the one hand, managers, acting in the best interests of the owners, invest in all positive NPV projects, which should increase firm value as measured in securities markets. In this case, we'd expect managers to listen to the market's assessment of the investment's value unless they had relevant inside information that, if known to the market, would change their assessment. Alternatively, however, managers may have incentives that run counter to firm value maximization. Agency theory predicts that managers may undertake investments to pursue their own objectives, possibly with the incentive to grow the firm to extract rents in the form of greater power, prestige and remuneration associated with managing a larger firm. Agency theory predicts that managers are more likely to listen to the market when they are more carefully monitored or when managers have interests more closely aligned to shareholders.

A. Frequency of apparent listening and not listening

Table V reports the frequency of transactions that were cancelled or completed and whether the firm "listened" or did not listen to the market. We define "listen" as cases where the announcement period abnormal return from day 0 to day +1 was positive and the deal was completed or the announcement period abnormal return was negative and the deal was not completed. We refer to this as the 0.0% threshold. Theoretically, however, one would expect managers to pay more attention to larger returns (in absolute value). While a small positive return may be viewed similarly to a small negative return (and may not be considered very informative), large returns may catch a manager's attention. Thus, we also use performance

This has the advantages of simplicity and less measurement error. In addition, we are most concerned with how the investment affects the bidder's shareholders, regardless of whether or not it creates positive synergy. Thus, we allow for the possibility that the bidder may decide to follow through on the investment even if it turns out to be a negative NPV project for their shareholders due to agency problems.

thresholds other than 0.0% to define whether a manager listened to the market. In Table V, we report results when we define “listening” as cases when the announcement period abnormal return was greater than 1.0%, 2.5% or 5.0% and the deal was completed, or the announcement period abnormal return was less than -1.0%, -2.5% or -5.0% and the deal was not completed. Deals where the announcement returns fall inside the thresholds are excluded from the analysis. Our predictions are the same across the different thresholds, although we expect the power of our tests to increase with the absolute value of the threshold.

Panel A reports the number of deals completed and cancelled across the three thresholds. The 1.0% threshold includes 3,582 observations, 3,060 (85.4%) completed and 522 (14.6%) cancelled; the 2.5% threshold includes 2,680 observations, 2,270 (84.7%) completed and 410 (15.3%) cancelled; and the 5.0% threshold includes 1,638 observations, 1,388 (84.7%) completed and 250 (15.3%) cancelled.¹⁵ Panel B reports the number of transactions where the firm listened and didn’t listen for the three thresholds. For the 1.0% threshold, 52% listen while 48% do not. As expected, the difference is greater when we increase the threshold to 2.5% and still further to 5.0%, albeit not dramatically. Using a 5.0% threshold, 54% of the deals are classified as listen while 46% are not.

Panel C combines the information of Panel A and Panel B, and shows listening frequencies separately for completed and cancelled deals. Although in both cases more than 50% are classified as listening, the results are more striking for the cancelled deals than the completed deals. With a threshold CAR of 5.0%, 54% of the completed deals are classified as listen and 46% as not listen, while 56% of the cancelled deals are classified as listen and 44% are not.

¹⁵ The 0.0% threshold (not reported in the table) includes 4,399 observations, 3,757 (85.4%) completed and 642 (14.6%) cancelled.

B. When do managers listen?

The results of Table V, while providing some descriptive evidence about the unconditional likelihood of a manager listening to the market, say nothing about what motivates them to listen or not listen (if there are, in fact, attributes that do motivate them to listen). We examine this in more detail in Tables VI and VII.

B.1. When do managers listen - Univariate analysis

Agency theory predicts that managers are more likely to listen to the market when their interests are more closely aligned with shareholders, either through equity ownership by managers, through contractual rewards, or by being more closely monitored. In Table VI we report univariate comparisons on firm and governance characteristics across transactions classified as listening, compared to those classified as not listening. We classify transactions as listen if the bidder's abnormal market return is greater than one percent and the deal is completed or the bidder's abnormal market return is less than one percent and the deal is cancelled. At this threshold, we are left with 3,582 transactions, 1,859 of which are classified as listen and 1,723 are classified as not listen. We report this one percent threshold as a trade-off between maximizing sample size and minimizing small abnormal returns that are unlikely to be informative. Results are similar when we use other thresholds.

The table reports that firms where the transactions are classified as listen are statistically smaller than those classified as not listen. Book-to-market is similar across the two samples. We control for both of these characteristics in our multivariate analysis. The absolute value of the abnormal market reaction ($Abs(CAR): [0, +1]$) is significantly higher in transactions where managers are classified as having listened to the market, consistent with the view that firms pay more attention to more extreme stock price movements.

We report three proxies for ownership incentives: the proportion of shares held by insiders, the proportion held by blockholders and the proportion held by institutions. Note that there would be at least some overlap in these categories since institutions and/or insiders could also be blockholders.¹⁶ Transactions classified as listen have higher ownership by blockholders and insiders. There is no significant across the two categories in the proportion of shares held by institutions. The results are consistent with Wu (2000), who argues that large shareholders have greater incentives to monitor management. The insider ownership result is consistent with higher insider ownership aligning incentives, and is not consistent with higher insider ownership leading to more entrenchment.

We define pay-performance sensitivity as $\log(\text{DELTA})$, which is the (log of the) estimated change in total pay given a 0.01 change in stock value (stock and stock options) per Core and Guay (2002). The univariate tests show no statistically significant difference across the two groups in pay-performance sensitivity.

With respect to the board of directors, we examine duality (CEO is COB), board size and the percent of the board that is officers. Transactions where managers are classified as having listened to the market have fewer cases where the CEO and the Chairman of the Board are the same person. This is consistent with Goyal and Park (2002), who show that boards with dual leadership are less likely to replace a CEO. It also appears that firms with smaller boards listen more, consistent with Yermack (1996) and others, who suggest that smaller boards are more effective and less subject to management influence. We find no statistically significant difference in the percent of the board that is insiders (officers).

¹⁶ We also report ownership by outside blockholders (e.g., all blockholders that aren't insiders) with similar results.

To proxy for shareholder rights, we report Gompers, Ishii and Metrick (2003)'s GIM index, Bebchuk, Cohen and Ferrell (2004)'s entrenchment index, as well as an indicator variable for whether the firm has supermajority requirements for mergers, as discussed above.

Transactions classified as listen have a higher entrenchment index and are more likely to have supermajority provisions, while there is no statistically significant difference in the GIM index across the two sets of transactions. These results are not consistent with Bebchuk, Cohen and Ferrell (2004), who find that firm's with high entrenchment scores perform worse than firm's with low entrenchment scores. However, as discussed earlier, the provisions that make-up the entrenchment index may actually deter bidder management from making an acquisition that is not in shareholder's best interest. Hence, these results are not surprising given that they represent measures for bidders. These results suggest that high entrenchment scores, while detrimental to shareholders in some situations, may actually help align decision making to shareholder's interest in some situations.

The univariate comparisons are generally consistent with agency theory, suggesting that agency considerations may be an important factor in determining whether managers listen to the market. However, we previously established that other factors affect deal completion probabilities. These characteristics are also likely to affect whether managers consider the market's reaction in making investment decisions. Thus, to more carefully examine our hypotheses, we need to examine this relation in a multivariate framework, controlling for factors known to affect deal completion probabilities. However, one problem with this framework is that many of the variables examined in Table VI proxy for similar attributes.¹⁷ They may be

¹⁷To examine this conjecture, we estimated the correlations across our key explanatory variables (results not reported in a table). As expected, most of these proxy variables are highly correlated with each other. For example, the percent of shares held by blockholders is negatively correlated with both board size and duality, and positively

substitute mechanisms for controlling agency problems. In any case, the high correlation may make it more difficult to identify precisely which factors are associated with managers' propensity to listen to the market. One approach to alleviating this problem is to estimate a governance index that combines all the hypothesized factors into one measure. With respect to our "other governance provisions", we have incorporated two such indices (GIM Index and Entrenchment index). Unfortunately, these indices do not cover all the attributes that we hypothesize to be important deterrents to agency conflicts, such as the board of directors and ownership concentration. In a contemporary working paper, Brown and Caylor (2004) construct an index that covers a broader array of governance attributes. However, their index, and the data they used to construct it, is only available since mid-2002 at best, which does not overlap with our sample. An alternative approach we consider is to examine each of our governance proxies separately, while still controlling for the other factors known to affect merger outcomes. While this is preferable to pure univariate analysis, it is still problematic because each model will have correlated omitted variables, making it difficult to conclude that the specific variable examined is driving the observed correlation. However, it does allow us to provide some evidence as to whether corporate governance appears to influence whether managers pay attention to market movements in making major investment decisions.¹⁸

B.2. When do managers listen - Multivariate analysis

Table VII reports logistic regression models explaining when managers listen to the market. The dependent variable is 1 if the transaction is defined as "listening" and 0 otherwise. We define listening as described above, and use the one percent abnormal return threshold as in

correlated with insider control of the board. We also estimated collinearity diagnostics in a regression that included all of our key explanatory variables. Results show some evidence of weak collinearity.

¹⁸ We are currently investigating the usefulness of a principal components analysis.

the previous table. Agency theory predicts that managers are more likely to listen to the market when their interests are more closely aligned with shareholders, either through compensation contracts or equity ownership, and when outside directors and shareholders have greater incentives to exert effort in monitoring. We also predict that the higher the announcement period stock return (in absolute value), the more likely it is that managers will listen.

Each model in the Table includes one or more of our key explanatory variables, as well as control variables shown previously to affect the probability of deal completion. They are included because if these attributes affect the propensity to complete the deal, then we also expect them to have an effect on whether managers pay attention to the market. The models include proxies for outside ownership, pay-performance sensitivity, board attributes, other governance provisions, and the absolute value of the announcement period return. As discussed earlier, we report separate regressions in this manner due to the high correlation across our key explanatory variables.

The variables of interest are the ownership variables, pay-performance sensitivity ($\log(\text{DELTA})$), CEO duality (*CEO is COB*) and *board size*, the entrenchment index, and the absolute value of the announcement period return ($\text{abs}(\text{CAR}): [0, +1]$). We expect the ownership covariates to have positive coefficients. Agency theory suggests that outside owners can effectively monitor managers into acting in shareholders best interest. As such, the presence of outside blockholdings and institutional investors should be associated with managers listening more. We expect a positive coefficient on pay-performance sensitivity, $\log(\text{DELTA})$. The more sensitive the CEO's pay is to shareholder value, the more likely they will make decisions in the best interests of the shareholders. Yermack (1996) finds that firms with smaller boards have higher market valuation and argues that smaller boards are more effective boards. If this is true,

then managers may face less monitoring with larger boards. Thus, we expect the coefficient on board size to be negative. We expect CEO duality, where the CEO and chairman of the board are the same person, to reduce board independence and monitoring incentives, and increase the power of the CEO. Thus, we expect managers at firms where the CEO and COB positions are combined to be less likely to listen to the market and predict a negative coefficient on the variable *CEO is COB*. Finally, we expect the entrenchment index to have a positive sign since the provisions that make up this index make it more difficult for bidders to complete mergers when shareholders disapprove. We expect the absolute value of the abnormal return ($abs(CAR)$: $[0, +1]$) to have a positive coefficient, implying that the greater the market's reaction to the announcement the more likely the managers will listen to the market.

Results are generally consistent with our hypotheses. The coefficient on blockholdings is positive and statistically significant. Thus, higher blockholdings are associated with more managers listening. This is consistent with the notion that concentrated ownership can lead to more effective monitoring, possibly motivating managers into working in shareholders' best interests. Holding all other variables constant at their mean values, a one standard deviation increase in the percent held by blockholders increases the probability of listening by 5.7 percentage points.

The coefficient on pay-performance sensitivity is positive and marginally significant, suggesting that manager's whose pay is more closely aligned with shareholders are more likely to consider the market's reaction when making an investment decision. A one standard deviation increase $\log(\Delta)$ increases the probability of listening by 3.8 percentage points.

Consistent with the univariate results, board size is negative and significant, suggesting that firms with smaller boards listen more. The entrenchment index is positive and significant,

consistent with the notion that some governance provisions may deter management from making an unwanted acquisition. Finally, the absolute value of the announcement period return is positive and significant, as expected, suggesting that larger returns are more likely to catch a firm's attention.

In model 6, we examine all the above governance proxy variables together in a single model. In this case, none of the variables are statistically significant at conventional levels.¹⁹ This may be due to the fact that the variables are substitute governance mechanisms, making it difficult to precisely identify which factors are driving the results. This suggests the potential usefulness of a broad-based governance index as a parsimonious representation of the monitoring intensity a manager faces.

We expect the control variables to have negative coefficients since, if these attributes lead managers toward or away from deal completion, then they should reduce the likelihood that managers will make the decision based solely on the market's response to the announcement. For example, we would expect deals involving public targets to be less likely to be completed after announced.²⁰ Public targets arguably have more opportunities to affect the deal outcome than private targets. In Table III we noted that deals with private targets have significantly higher completion probabilities. Indeed, we find that the public status of the target is negative and significant, suggesting that managers are less likely to listen to the market when the target is a public firm.

¹⁹ If we replace the entrenchment index with the dummy variable for the existence of supermajority provisions, then that variable is positive and significant in the model 6 specification.

²⁰ Boone and Mulherin (2004) point out that there are typically negotiations conducted prior to the public announcement of a corporate takeover.

B.3. Robustness Tests

In unreported results, we add controls for the absolute value of the pre- and post-announcement period abnormal returns, defined as $[-90,-2]$ and $[+2,+90]$, in the Table VII model 6 specification. It is possible that returns over these longer windows influence managers behavior since this information is known before the deal is finalized.²¹ Results are qualitatively similar to those reported, although with somewhat higher power.

Finally, we estimate an OLS regression after replacing the listen dummy variable with the time elapsed from deal announcement until the deal completion or cancellation. The purpose is to examine whether agency costs influence how quickly a decision is finalized. The results weakly show that higher announcement period returns (absolute value), higher ownership by blockholders and higher CEO higher pay-performance sensitivity are associated with shorter times between announcement and outcome (completion or cancellation). These results are consistent with managers listening to the market, particularly when their pay that is more sensitive to performance.

Overall, the Table VI and VII results are consistent with the notion that managers listen to their shareholders when making major investment decisions. They are more likely to cancel investments viewed negatively by the market and vice versa, particularly when the market reaction is large. Further, consistent with agency theory, it appears that firms with more outside monitors, smaller boards and firms whose CEOs have higher pay-performance sensitivities are more likely to respond to the market in a manner consistent with them listening the market's advise on major investment decisions. In addition, some governance provisions thought to

²¹ Average time from the announcement date to either the completion or cancellation (withdrawal) date is approximately 130 days for our sample.

entrench *target* management appear to deter *bidder* management from completing an unwanted acquisition.

V. Conclusion and Implications

The reaction of stock prices to various events is an extremely valuable source of information to a firm's managers. Managers can observe how markets react to their decisions to gain a better understanding of whether the market views their announced investments as value-enhancing or value-reducing. This not only provides useful information to managers, but also may prove an effective monitoring mechanism. Thus, we would expect managers to use the information generated in securities markets as an input into decision making. However, the literature has had surprisingly little to say on the matter. The research that does exist provides somewhat mixed results. Jennings and Mazzeo (1991) suggest that managers do not consider information provided in markets in M&A decisions while Luo (2005) suggests that firms do, in fact, "learn" from the market during M&As. This paper adds to the literature by examining whether managers listen to the market, and further explores whether agency costs affect managers' propensity to the listen to the market.

We find evidence consistent with managers listening to the market when making major investment decisions. We find this in univariate comparisons, and also when we control for other factors that we know affect M&A completion probabilities. Deals that the market predicts to have higher returns are more likely to be completed than deals with lower market returns. Further, variables that proxy for monitoring intensity and agency costs affect deal completion in the predicted way: managers are more likely to listen to markets when a higher proportion of the

firm's shares are held by blockholders, when they have smaller boards, and when their pay is more sensitive to performance.

Our work has several implications, both for future work and for decision making. With respect to future research, it would be useful to extend the findings of this paper to other decisions. For decision making, there are several ways in which firms can use our results to improve performance. For example, when undertaking large investments, managers can perform analyses similar to ours and determine whether the market views their decision favorably. Boards of directors can require that managers provide the results of such analyses along with proposals for major changes in the business. In announcing decisions, managers can take care so as to maximize the probability of a market response. For example, they can refrain from announcing a decision on a day when some confounding event is expected to occur, so as to get the cleanest possible market response to their decision. In the long run, competent managers should benefit from this approach because it will help them make better decisions, and will enable them to actually quantify the benefits of their decisions. Rappaport (1987) and Dye and Sridhar (2002) have made similar proposals in the past, suggesting that managers can find out the effectiveness of their strategies by examining the market reaction to their disclosures.

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Table I**Distribution of the sample across years and industries**

The sample consists of all M&A transactions announced from January 1978 through December 2001 that were either completed or withdrawn (cancelled), where the deal value is greater than \$100 million, the value of the transaction is at least 10% of the firm's equity value, the acquirer is publicly traded on either AMEX, NYSE or NASDAQ, and the firm has sufficient coverage in the CRSP database.

Panel A - Distribution of sample across years

<i>Year</i>	<i>Completed</i>	<i>Cancelled</i>	<i>Total</i>	<i>% of Sample</i>	<i>% Cancelled</i>
1978	10	3	13	0.3%	23.1%
1979	7	2	9	0.2%	22.2%
1980	9	3	12	0.3%	25.0%
1981	43	17	60	1.4%	28.3%
1982	39	9	48	1.1%	18.8%
1983	58	15	73	1.7%	20.5%
1984	112	25	137	3.1%	18.2%
1985	113	32	145	3.3%	22.1%
1986	140	28	168	3.8%	16.7%
1987	96	34	130	3.0%	26.2%
1988	103	54	157	3.6%	34.4%
1989	114	36	150	3.4%	24.0%
1990	57	16	73	1.7%	21.9%
1991	65	14	79	1.8%	17.7%
1992	92	9	101	2.3%	8.9%
1993	120	15	135	3.1%	11.1%
1994	167	29	196	4.5%	14.8%
1995	227	28	255	5.8%	11.0%
1996	305	37	342	7.8%	10.8%
1997	473	46	519	11.8%	8.9%
1998	446	58	504	11.5%	11.5%
1999	397	61	458	10.4%	13.3%
2000	330	38	368	8.4%	10.3%
2001	234	33	267	6.1%	12.4%
Total	3,757	642	4,399	100.0%	14.6%
<i>% of Total</i>	<i>85.4%</i>	<i>14.6%</i>	<i>100.0%</i>		

Panel B - Distribution of sample across industries

<i>Industry Description</i>	<i>SIC2</i>	<i>N</i>	<i>% of Sample</i>
Holding,Other Invest Offices	67	477	10.8%
Communications	48	361	8.2%
Business Services	73	301	6.8%
Electric, Gas, Sanitary Serv	49	233	5.3%
Oil and Gas Extraction	13	229	5.2%
Electr, Oth Elec Eq, Ex Cmp	36	211	4.8%
Chemicals & Allied Products	28	197	4.5%
Indl,Comml Machy,Computer Eq	35	179	4.1%
Other		2,211	50.3%
Total		4,399	100.0%

Table II**Abnormal returns surrounding merger announcements**

The table reports mean bidder abnormal stock returns surrounding M&A announcements from 1978 through 2001. The sample consists of all M&A transactions announced from January 1978 through December 2001 that were either completed or withdrawn (cancelled), where the deal value is greater than \$100 million, the value of the transaction is at least 10% of the firm's equity value, the acquirer is publicly traded on either AMEX, NYSE or NASDAQ, and the firm has sufficient coverage in the CRSP database. Cumulative abnormal returns (CARs) are based on market model regressions, using the CRSP value weighted portfolio as the market benchmark. Boehmer, Musumeci and Poulsen (1991) z-statistics assessing whether the abnormal return is significantly different from zero are reported in brackets below the mean CAR. Difference in means tests are based on a standard *t*-test; *p*-values, reported in parentheses, are two-tailed.

<i>Mean Market Model Abnormal Returns (in %)</i>				
<i>Event Period</i>	<i>Completed (N=3,757)</i>	<i>Cancelled (N=642)</i>	<i>Difference</i>	<i>p-value</i>
<i>[-30,-1]</i>	0.25	1.22	-0.97	(0.17)
Z-stat	[1.16]	[2.19]		
<i>[0,+1]</i>	0.56	-0.70	1.26	(<0.01)
Z-stat	[3.75]	[-3.06]		
<i>[+2,+30]</i>	-2.33	-3.83	1.51	(0.03)
Z-stat	[-7.18]	[-3.66]		
<i>[0,+30]</i>	-1.77	-4.53	2.77	(<0.01)
Z-stat	[-4.03]	[-4.85]		

Table III
Sample Statistics

The sample consists of all M&A transactions announced from January 1978 through December 2001 that were either completed or withdrawn (cancelled), where the deal value is greater than \$100 million, the value of the transaction is at least 10% of the firm's equity value, the acquirer is publicly traded on either AMEX, NYSE or NASDAQ, and the firm has sufficient coverage in the CRSP database. Difference in means tests are based on standard *t*-test; *p*-values, reported in parentheses, are two-tailed.

<i>Variable</i>	<i>Completed</i> (<i>N</i> =3,757)	<i>Cancelled</i> (<i>N</i> =642)	<i>Diff</i>	<i>p-value</i>
Misc firm/deal characteristics (Mean)				
Size (MV of equity)	3,051.7	2,555.9	495.9	(0.24)
Book-to-Market	0.51	0.61	-0.10	(<0.01)
Toehold %	2.17	2.16	0.01	(0.98)
Percentage of deals with the following features:				
Deal includes a lockup of target shares	10.2%	5.1%	5.0%	(<0.01)
Tender offer	14.4%	19.6%	-5.3%	(<0.01)
Stock dummy	31.3%	31.9%	-0.7%	(0.74)
Compete dummy	3.1%	23.2%	-20.1%	(<0.01)
Friendly dummy	88.1%	61.5%	26.6%	(<0.01)
Litigation dummy	5.2%	16.4%	-11.1%	(<0.01)
Family firm dummy	0.9%	1.7%	-0.8%	(0.07)
Bidder termination fee dummy	9.4%	7.1%	2.3%	(0.07)
Target termination fee dummy	22.1%	12.0%	10.2%	(<0.01)
Defense dummy	0.7%	7.0%	-6.3%	(<0.01)
Toehold dummy	6.1%	9.8%	-3.7%	(<0.01)
Public target dummy	50.7%	75.2%	-24.5%	(<0.01)

Table IV**Logistic models on completed and cancelled transactions**

The dependent variable is 1 if the transaction is completed and 0 if it is withdrawn (cancelled). The sample consists of all M&A transactions announced from January 1978 through December 2001 that were either completed or withdrawn (cancelled), where the deal value is greater than \$100 million, the value of the transaction is at least 10% of the firm's equity value, the acquirer is publicly traded on either AMEX, NYSE or NASDAQ, and the firm has sufficient coverage in the CRSP database. P-values are reported in parentheses below the coefficient estimates. *Pseudo-R*² is $(1 - \{L(0)/L(\text{bhat})\}^{2/n})$ where $L(0)$ is the likelihood of the intercept-only model, $L(\text{bhat})$ is the likelihood of the specified model, and n is the sample size [Cox and Snell (1989, pp. 208 -209)].

Logistic Regressions Model	Dependent variable = 1 if transaction completed			
	1	2	3	4
Time period covered	1978-2001	1978-2001	1990-2001	1990-2001
N	3,828	3,828	3,138	3,138
Intercept	0.75 (0.02)	0.79 (0.01)	0.92 (0.02)	0.93 (0.02)
CAR: [-30,-1]	0.23 (0.49)	0.21 (0.53)	0.02 (0.96)	0.02 (0.97)
CAR: [0,+1]	1.56 (0.02)		1.29 (0.08)	
CAR: [+2,+30]	0.97 (< 0.01)		1.19 (< 0.01)	
CAR: [0,+30]		1.08 (< 0.01)		1.21 (< 0.01)
Tender offer	0.83 (< 0.01)	0.84 (< 0.01)	0.96 (< 0.01)	0.96 (< 0.01)
Stock dummy	-0.37 (< 0.01)	-0.38 (< 0.01)	-0.31 (0.05)	-0.31 (0.04)
Compete dummy	-2.22 (< 0.01)	-2.22 (< 0.01)	-2.43 (< 0.01)	-2.43 (< 0.01)
Friendly dummy	1.08 (< 0.01)	1.07 (< 0.01)	1.36 (< 0.01)	1.36 (< 0.01)
Litigation dummy	-0.65 (< 0.01)	-0.65 (< 0.01)	-1.14 (< 0.01)	-1.14 (< 0.01)
Family firm dummy	-0.34 (0.42)	-0.35 (0.42)	0.23 (0.76)	0.23 (0.75)
Deal includes a lockup of target shares	0.99 (< 0.01)	0.98 (< 0.01)	0.65 (< 0.01)	0.64 (< 0.01)
Target termination fee dummy	1.12 (< 0.01)	1.12 (< 0.01)	1.08 (< 0.01)	1.08 (< 0.01)
Bidder termination fee dummy	-0.31 (0.17)	-0.32 (0.17)	-0.40 (0.09)	-0.40 (0.09)

Defense dummy	-0.91 (0.01)	-0.92 (0.01)	-0.48 (0.40)	-0.48 (0.40)
Public target dummy	-0.97 (< 0.01)	-0.98 (< 0.01)	-0.98 (< 0.01)	-0.98 (< 0.01)
Toehold %	0.00 (0.82)	0.00 (0.82)	0.00 (0.91)	0.00 (0.91)
log(Size)	0.15 (< 0.01)	0.15 (< 0.01)	0.12 (0.01)	0.12 (0.01)
Book-to-Market	-0.31 (0.01)	-0.31 (0.01)	-0.34 (0.03)	-0.34 (0.03)
Model chi-square	[467.88]	[467.29]	[346.31]	[346.30]
Prob(chi-square)	(< 0.01)	(< 0.01)	(< 0.01)	(< 0.01)
Pseudo R-squared	0.151	0.150	0.133	0.133

Table V**Do they listen?**

The table reports frequency of transactions that were cancelled vs. completed and whether the firm "listened" vs. did not listen to the market. The sample consists of all M&A transactions announced from January 1978 through December 2001 that were either completed or withdrawn (cancelled), where the deal value is greater than \$100 million, the value of the transaction is at least 10% of the firm's equity value, the acquirer is publicly traded on either AMEX, NYSE or NASDAQ, and the firm has sufficient coverage in the CRSP database. We define listen as cases where the announcement period abnormal return ([0,+1] horizon) was positive and the deal was completed or the announcement period abnormal return was negative and the deal was not completed (0.0% threshold). We use definitions other than a 0.0% threshold as shown in the table. Abnormal returns are based on market model regressions, using the CRSP value weighted portfolio as the market benchmark.

Panel A: Number of transactions completed and cancelled

	<i>Threshold: 1.0% CAR</i>		<i>Threshold: 2.5% CAR</i>		<i>Threshold: 5.0% CAR</i>	
	<i>N</i>	<i>Pct</i>	<i>N</i>	<i>Pct</i>	<i>N</i>	<i>Pct</i>
Completed	3,060	85.4%	2,270	84.7%	1,388	84.7%
Cancelled	522	14.6%	410	15.3%	250	15.3%
Total	3,582	100.0%	2,680	100.0%	1,638	100.0%

Panel B: Number of transactions where firm listened vs. didn't listen

	<i>Threshold: 1.0% CAR</i>			<i>Threshold: 2.5% CAR</i>			<i>Threshold: 5.0% CAR</i>		
	<i>Listen</i>	<i>Don't Listen</i>	<i>Total</i>	<i>Listen</i>	<i>Don't Listen</i>	<i>Total</i>	<i>Listen</i>	<i>Don't Listen</i>	<i>Total</i>
N	1,859	1,723	3,582	1,419	1,261	2,680	884	754	1,638
Percent	51.9%	48.1%	100.0%	52.9%	47.1%	100.0%	54.0%	46.0%	100.0%

Panel C: Number of transactions completed/cancelled and listened/not listened

	<i>Threshold: 1.0% CAR</i>			<i>Threshold: 2.5% CAR</i>			<i>Threshold: 5.0% CAR</i>		
	<i>Listen</i>	<i>Don't Listen</i>	<i>Total</i>	<i>Listen</i>	<i>Don't Listen</i>	<i>Total</i>	<i>Listen</i>	<i>Don't Listen</i>	<i>Total</i>
Completed	1,552	1,508	3,060	1,175	1,095	2,270	744	644	1,388
Percent	50.7%	49.3%	100.0%	51.8%	48.2%	100.0%	53.6%	46.4%	100.0%
Cancelled	307	215	522	244	166	410	140	110	250
Percent	58.8%	41.2%	100.0%	59.5%	40.5%	100.0%	56.0%	44.0%	100.0%
Total			3,582			2,680			1,638

Table VI**Univariate statistics for those that listen compared to those that do not**

The table reports mean differences of various characteristics across transactions classified as listen and those classified as not listen. Transactions are classified as listen if the abnormal market reaction is greater than one percent and the deal is completed or the abnormal market reaction is less than one percent and the deal is cancelled. DELTA is the change in total pay given a 0.01 change in stock value (stock and stock options), CEO is COB is 1 if the CEO is also the chairman of the board. GIM Index is the Gompers, Ishii and Metrick (2003) governance index, Entrenchment index is the Bebchuk, Cohen and Farrell (2004) entrenchment index, and supermajority provision is 1 if the firm has a supermajority requirement for approving mergers. Difference tests are based on standard t-test (means); two-tailed p-values are reported in parentheses.

<i>Differences across transactions classified as listening and not listening</i>				
<i>Variable</i>	<i>Did not</i>		<i>Diff</i>	<i>p-value</i>
	<i>Listen</i> (<i>N=1,859</i>)	<i>Listen</i> (<i>N=1,723</i>)		
<i>Firm characteristics</i>				
Size (MV of equity)	2,585.2	3,738.6	-1,153.4	(<0.01)
Book-to-Market	0.50	0.51	-0.01	(0.50)
Abs(CAR): [0,+1]	7.2	6.3	0.9	(<0.01)
<i>Ownership incentives</i>				
% held: insiders	14.4	12.4	2.0	(0.02)
% held: blockholders	34.7	30.5	4.3	(<0.01)
% held: institutions	47.9	48.2	-0.3	(0.79)
<i>Pay for performance</i>				
log(DELTA)	-1.4	-1.3	-0.1	(0.22)
<i>Board of directors</i>				
CEO is COB	0.75	0.81	-0.05	(0.02)
Board size	9.6	10.1	-0.5	(<0.01)
Pct of board that is officers	30.0	28.9	1.1	(0.23)
<i>Other governance provisions</i>				
GIM index	9.33	9.18	0.16	(0.31)
Entrenchment index	1.63	1.45	0.17	(<0.01)
Supermajority provision	0.21	0.11	0.10	(<0.01)

Table VII
Logistic models on listen vs. do not listen to the market

The table reports logistic regression models explaining when managers listen to the market. The dependent variable is 1 if the transaction is defined as "listening" and 0 otherwise. We define listen as cases where the announcement period abnormal return was greater than one percent and the deal was completed or the announcement period abnormal return was less than one percent and the deal was not completed. Abnormal returns are based on market model regressions, using the CRSP value weighted portfolio as the market benchmark. The sample consists of all M&A transactions announced from January 1978 through December 2001 that were either completed or withdrawn (cancelled), where the deal value is greater than \$100 million, the value of the transaction is at least 10% of the firm's equity value, the acquirer is publicly traded on either AMEX, NYSE or NASDAQ, and the firm has sufficient coverage in the CRSP database. Two tailed p -values are reported in parentheses below the coefficient estimates. $Pseudo-R^2$ is $(1 - \{L(0)/L(bhat)\}^{2/n})$ where $L(0)$ is the likelihood of the intercept-only model, $L(bhat)$ is the likelihood of the specified model, and n is the sample size [Cox and Snell (1989, pp. 208 -209)].

<i>Logistic Regressions</i>						
	1	2	3	4	5	6
N	1,997	1,299	2,197	1,283	3,149	897
Intercept	1.00 (< 0.01)	2.33 (< 0.01)	1.43 (< 0.01)	2.01 (< 0.01)	0.97 (< 0.01)	2.19 (< 0.01)
% held: blockholders	0.51 (0.02)					0.25 (0.58)
log(DELTAA)		0.07 (0.10)				0.07 (0.21)
Board size			-0.03 (0.06)			0.02 (0.39)
Entrenchment index				0.11 (0.03)		0.08 (0.20)
Abs(CAR): [0,+1]					2.10 (< 0.01)	1.01 (0.46)
Deal includes a lockup of target sh:	-0.32 (0.06)	-0.31 (0.12)	-0.37 (0.03)	-0.34 (0.09)	-0.47 (< 0.01)	-0.23 (0.33)
Tender offer	0.31 (0.05)	0.19 (0.31)	0.19 (0.22)	0.35 (0.06)	0.13 (0.27)	0.29 (0.18)
Stock dummy	-0.43 (< 0.01)	-0.45 (< 0.01)	-0.45 (< 0.01)	-0.30 (0.04)	-0.41 (< 0.01)	-0.37 (0.03)
Compete dummy	0.02 (0.91)	0.21 (0.39)	0.01 (0.97)	0.02 (0.95)	-0.07 (0.65)	0.21 (0.45)
Friendly dummy	-0.41 (0.03)	-0.47 (0.04)	-0.45 (< 0.01)	-0.54 (0.01)	-0.34 (< 0.01)	-0.52 (0.04)
Litigation dummy	0.09 (0.69)	0.09 (0.75)	0.02 (0.92)	-0.07 (0.80)	-0.13 (0.41)	0.06 (0.87)
Family firm dummy	-0.87 (0.17)	0.10 (0.90)	-0.86 (0.13)	-1.12 (0.20)	-0.52 (0.16)	-1.30 (0.30)

Target termination fee dummy	-0.30 (0.02)	-0.29 (0.06)	-0.35 (< 0.01)	-0.13 (0.40)	-0.31 (< 0.01)	-0.14 (0.47)
Public target dummy	-0.63 (< 0.01)	-0.60 (< 0.01)	-0.54 (< 0.01)	-0.68 (< 0.01)	-0.44 (< 0.01)	-0.75 (< 0.01)
log(Size)	-0.02 (0.54)	-0.14 (< 0.01)	-0.02 (0.62)	-0.13 (0.01)	-0.03 (0.28)	-0.18 (0.03)
Book-to-Market	0.23 (0.07)	0.09 (0.71)	0.12 (0.29)	-0.03 (0.85)	-0.10 (0.26)	0.05 (0.86)
Model chi-square	[165.10]	[109.76]	[174.82]	[105.38]	[187.05]	[80.64]
Pseudo R-squared	0.086	0.088	0.083	0.086	0.063	0.094
