A TEST OF MANAGERIAL-SHAREHOLDER CONFLICT
OF INTEREST IN CORPORATE TAKEOVERS

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Abstract

This study examines insiders' transactions in their own firms around the
announcement of corporate takeovers to test the managerial-shareholder
conflict of interest hypothesis. The conflict of interest hypothesis predicts
that managers in bidder firms undertake unprofitable takeovers or managers in
target firms oppose profitable takeovers to enhance their personal welfare
while reducing the wealth of their shareholders. Managerial trading in the
stock of their own firms in both bidder and target firms is expected to
provide a reliable signal about managements' expectations about the effects of
their decisions on their firms' stock prices.

I-Introduction

The evidence on the wealth effects of corporate takeovers indicates that the shareholders of unsuccessful target firms experience significant wealth losses when an incumbent target management successfully blocks a takeover attempt. Similarly, shareholders of some successful and unsuccessful bidder firms also experience wealth losses in corporate takeovers.[1] This evidence suggests that some managerial decisions that affect the outcome of corporate takeovers appear to be inconsistent with maximization of shareholders' wealth. This study attempts to distinguish between two competing explanations of managerial decisions. One potential explanation is that managers engage in unprofitable takeovers, or block potentially profitable takeover attempts of their own firms in an effort to enhance their personal welfare. The alternative explanation is that in competitive managerial markets, incumbent managers cannot deviate significantly from their shareholders' interests. Hence, incumbent managers inadvertantly hurt their shareholders either due to lack of complete information or their inability to process the available information.

The incentive effects of the separation of ownership and control are analyzed by Jensen and Meckling (1976) and Fama (1980). Jensen and Meckling (1976) point out that managers will deviate from maximizing shareholders' wealth since it is costly to write and enforce contracts that monitor

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[1] Studies by Bradley (1980), Dodd (1980), and Asquith (1983) report that shareholders of successful target firms benefit on average from 6% to 35% from successful takeovers. Shareholders of unsuccessful target firms experience abnormal returns from -11.7% in Kummer and Hoffmeister (1978) to 3.7% in Dodd (1980). For successful bidder firms, Jarrell and Bradley (1980) report a 6.7% abnormal gain in tender offers, while Dodd (1980) reports a 7.2% abnormal loss in mergers. The abnormal returns to the shareholders of unsuccessful bidders range from -5.9% in Asquith (1983) to 4.9% in Eckbo (1983). For a review of this evidence, see Jensen and Ruback (1983).

managers' performance. The degree to which managers' and shareholders' interests diverge is expected to depend on the costs of writing and enforcing contracts and residual managerial stock ownership. Jensen and Meckling (1976) identify the control of the managerial shareholder conflict of interest as essential to the survival of the corporation. Fama (1980) points out that with competitive internal and external managerial labor markets, managers will be charged the expected cost of their deviations from maximizing shareholders' wealth in their multi-period employment contracts. This ex-post settling up will tend to control the conflict of interest between managers and their shareholders. Hence, managerial deviations from decisions that maximize their shareholders' wealth are not expected to be important.

This study tests whether the conflict of interest between managers and their shareholders is the driving force behind corporate takeovers by examining managerial trading in their own firms around the announcement of corporate takeovers. Managers' transactions in their own firms are expected to signal their beliefs about the change in their own firms' stock prices as a result of their takeover decision.[2] If entrenched incumbent managers in bidder firms expect their decisions to lower the stock prices of their own firms, then they would be expected to reduce their stock purchases and increase their stock sales in their own firms prior to the announcement of

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[2] Insiders' transactions in their own firms are regulated by the Securities and Exchange Act of 1934. Section 16 (a) of the Act defines insiders as officers, directors, and owners of 10% or more of any equity class of securities. Section 16 (b) requires the return to the corporation of all short-swing profits that arise from sale and a purchase within six months of each other, along with treble damages. Section 16 (c) prohibits short sales by insiders. Section 10 prohibits fraud and nondisclosure of material information prior to sale and purchases securities. Section 32 is amended in 1975 to provide additional penalties up to $10,000 in fines and 5 years of imprisonment.

their takeover decisions. Similarly, if entrenched incumbent managers in target firms expect their opposition to the takeover to result in lower stock prices in their own firms, then they are also expected to reduce their stock purchases and increase their stock sales prior to the announcement of their opposition to the takeover. Hence managers' transactions in their own firms around corporate takeovers provide a unique database to measure managers' expectations and test the managerial shareholder conflict of interest hypothesis.

Section 2 of the paper describes the data and the sample characteristics. Section 3 of the paper describes the empirical methodology. The results of the empirical tests are in Section 4, and the conclusions and implications of the study are in Section 5.

II- Data and Sample Characteristics

All firms involved in tender offers from January 1975 to October 1981 for which security return data is available on the files of the Center for Research in Security Prices are included in the study. In addition, the sample contains data on mergers between firms in the same industry between January 1975 and October 1981.[3] The insider trading data is obtained from the Ownership Reporting System files of the Security and Exchange Commission which publishes insiders' transactions in their own firms. This data set includes the name of the insider, insiders' relation to the firm, date of trade, type of transaction, number of shares traded, number of shares held by the insider, and the reporting and publication dates.

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[3] I thank Michael Bradley for making the data on corporate takeovers available to me.

To focus on information related transactions, only open market sale and

purchase transactions are analyzed.[4] Following Seyhun (1986), the empirical

tests separate executives' transactions from large shareholders' transactions

for several reasons. First, the large shareholders trade substantially larger

dollar volumes of stock than executives, while the executives' transactions

contain more information than the large shareholders' transactions. Hence, if

all transactions are pooled together, large shareholders' transactions would

dominate executives' transactions and the pooled transactions would contain

less information. Also, some of the bidder firms are themselves large

shareholders in target firms. Hence, the large shareholders' transactions

around takeovers are driven by different motives than the executives'

transactions.

Table 1 shows the breakdown of executives' open market sales and

purchases separated by target and bidder firms. The sample of firms involved

in takeovers total 437 firms, of which 262 are bidder firms and 175 are target

firms. The sample contains 23,859 executive transactions, with a total dollar

value of $1.86 billion. There are 15,443 open market sale transactions with a

dollar value of $1.58 billion and 8,416 open market purchase transactions with

a dollar value of $0.28 billion. Hence, this study examines a large number

of insider transactions for firms involved in takeovers. For both the bidder

and target firms, the number and the dollar value of sales exceed the number

and the dollar value of purchases.

Insiders' open market sales and purchases are analyzed separately, since

regulation of insider trading can discourage active trading. In this paper,

active trading refers to buying shares before good news and selling shares

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[4] Shares tendered to the bidder firms are classified either as other
dispositions or private sales depending on the type of consideration received
in exchange. Hence, tendered shares are not included in the analysis in this
study.

Table 1

Number of firms involved in corporate takeovers, total dollar value of purchases and sales (in $ million), and number of purchases and sales by executives, grouped by type of acquisition, bidder and target firms in tender offers, and bidder and target firms in mergers. The period of analysis is from January 1975 to October 1981.

	Bidder Firms	Target Firms	All Firms
Dollar value of purchases.........	237.1	41.6	278.7
Dollar value of sales.............	1,360.6	220.1	1,580.7
Dollar value of all transactions.....	1,597.7	261.7	1,859.4
Number of purchases............	6,518	1,898	8,416
Number of sales...............	11,887	3,556	15,443
Number of all Transactions.........	18,405	5,454	23,859
Number of firms......	262	175	437

before bad news. Passive trading refers to refraining from actions that would reduce managers' wealth. Hence, passive trading involves refraining from selling shares before good news or buying shares before bad news. Active trading immediately before takeovers can invite lawsuits for violation of the provisions of the insider trading regulations.[5] However, insiders cannot be prosecuted for refraining from trading that would have lowered their wealth. By separating insiders' sales from purchases, it is possible to observe unusual declines in trading activity as well as unusual increases in trading activity that can result from the special insider information.

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[5] Supra note 2.

III- Empirical Methodology

Analysis of the insider trading data requires some special considerations. First, most calendar months in a given firm contain no insider trading, which leads to a highly leptokurtic distribution of insiders' transactions. Also, insiders in different size firms have different normal trading activity even in the absence of corporate takeover announcements. Seyhun (1986) documents that on average insiders in small firms are net buyers of stock while insiders in large firms are net sellers of stock.[6] Furthermore, the dollar volume and the frequency of insiders' transactions depend on the number of insiders, which in turn depends on firm size. Consequently, using insiders' transactions as a dependent variable in regressions leads to heteroscedastic and nonnormal residuals which makes interpretation of the results difficult.

To obtain a benchmark for normal insider trading activity in the absence of takeover announcements, standardized insiders' transactions are computed. First, the sample period of January 1975 to October 1981 is divided into forty-one 2-month subperiods relative to the takeover announcement day.[7] The event period 0 is defined as the period from 59 days before the takeover announcement day to the takeover announcement day. The event period 1 is defined as the period from 1 day to 60 days after the takeover announcement day. Other event periods are defined by moving forward or backward by 60 calendar days, accordingly. Second, insider transactions are summed for each

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[6] Insiders in larger firms tend to acquire a greater proportion of the stock in their own firms through option exercises, rather than open market purchases. In contrast, stock acquisitions through option exercises in small firms is quite infrequent.

[7] Subperiods at the ends of the sample period with less than 60 calendar days are ignored.

event period and the sample mean and standard deviation of insider trading is computed over the 41 event periods. For each firm, standardized insider trading is computed by subtracting the sample mean and dividing by the sample standard deviation over the 41 event periods. Hence, standardized insider trading has a mean of zero and a standard deviation of one for all firms. Consequently, normal trading activity in the absence of takeover announcements is represented by an expected value of zero in each firm. Furthermore, each firm gets approximately the same weight in empirical tests, since the standard deviation of standardized insider trading in each firm is one. Standardization ensures that the results of the overall empirical tests are not dominated by a few high volume firms.

Standardized insiders' transactions are also grouped to obtain approximately normally distributed residuals. For instance, to analyze insiders' response to the abnormal returns around the takeover announcement, standardized insider trading is grouped into 40 cells based on ranks of abnormal returns and success of the takeover for each of the 5 event periods surrounding the takeover announcement day. To account for heteroscedasticity induced by grouping of unequal number of firm months into each cell, all regressions are weighted least squares regressions, using as weights the number of observations averaged in each of the 40 cells.

IV- Empirical Tests

The empirical tests presented in this section estimate the following types of relations to determine insiders' transactions in their own firms around the takeover announcements,

$$IT = a + a_{-2} \ P_{-2}T + a_{-1} \ P_{-1}T + a_0 \ P_0T + a_1 \ P_1T \qquad (1)$$

where IT (insider trading) denotes either the standardized dollar value of purchases (DPUR), standardized dollar value of sales (DSAL), or the standardized net dollar value of transactions (DNET). The independent variable P_t denotes a dummy variable that equals one if insider trading occurs in event period t, otherwise P_t equals zero. The definition of the events periods are the same as before. The event period 0 corresponds to the period from 59 days before the takeover announcement day to the announcement day. The other months are incremented by 60 calendar days respectively. The variable T is a dummy variable that denotes the type of event under study. For instance, if insider trading in successful target firms is examined, then T takes the value 1 if tender offer is successful, zero otherwise. A tender offer is designated as successful if any of the bidder firms are able to acquire the target firm within one year of the first announcement of the tender offer. For target firms, the announcement day refers to the first announcement day if there are multiple bidders. For bidder firms, the announcement day is the day each bidder makes a takeover announcement.

The evidence presented next attempts to determine if the insiders in target firms have advance information about the takeover attempt and take advantage of their advance information. Models (1) through (4) in table 2 examine insiders' transactions in successful takeover targets, which includes both tender offers and mergers. Model (1) examines the changes in normal purchase activity of executives around takeover announcements. Model (1)

shows that there is a significant increase in the dollar value of stock purchases by executives of successful target firms between two months to six months in advance of the announcement of the takeover. The increase in advance purchase activity by executives is significant at the 1% level. During the two months following the announcement of the successful takeover, the standardized dollar value of executives' stock purchases decrease marginally. Model (2) examines the changes in executives' stock sales around corporate takeovers. Model (2) shows that the dollar value of executives' stock sales decrease marginally between two to four months in advance of the takeover announcement, while the dollar value of executives' stock sales increase significantly during the two months following the takeover announcement. The increase in executives' sales during the two months following the takeover announcement has an associated t-statistic of 11.15, which is highly significant. Model (3) in table 2 examines the standardized net executive purchase activity by first netting out the dollar value of executives' sales from the dollar value of executives' purchases. Model (3) summarizes the finding that the executives of the successful target firms significantly increase their net stock purchases during the six months prior to the takeover announcement and significantly increase their net stock sales during the two months following the takeover announcement.

Model (4) in table 2 examines large shareholders' standardized transactions in successful takeover targets. Similar to model (3), model (4) shows that large shareholders also increase their net stock purchases prior to the announcement of the takeover. However, unlike the executives, the large shareholders do not increase their net stock sales following the takeover announcement. The difference in the post announcement trading patterns of executives and large shareholders is expected since some of the bidder firms

Table 2

Weighted least squares regression of executives' transactions in their own firms in successful and unsuccessful target firms against dummy values representing 60 calendar days around the announcement of corporate takeover. The variable DPURE denotes dollar value of purchases, DSALE, dollar value of sales, and DNETE, net dollar value of executives' transactions. The variable DNETS denotes the net dollar value of large shareholders' transactions. The t-statistics are shown in parentheses.d

Model No	Dependent Variable	Constant	P_{-2} T	P_{-1} T	P_0 T	P_1 T	N	Adjusted R2
Panel A: Insider trading in successful target firms								
(1)	DPURE	-0.01 (-1.10)	0.33 (4.84)c	0.13 (1.88)a	0.04 (0.53)	-0.11 (-1.71)a	40	0.40
(2)	DSALE	-0.02 (-1.98)	0.01 (0.13)	-0.15 (-1.66)a	0.12 (1.35)	1.01 (11.15)c	40	0.76
(3)	DNETE	0.02 (1.41)	0.08 (0.84)	0.24 (2.54)b	-0.10 (-1.01)	-0.87 (-9.15)c	40	0.69
(4)	DNETS	-0.01 (-0.37)	0.32 (2.20)b	-0.03 (-0.22)	-0.13 (-0.89)	0.14 (1.00)	40	0.06
Panel B: Insider trading in unsuccessful target firms								
(5)	DPURE	0.0 (-0.27)	0.16 (0.95)	-0.03 (-0.16)	0.02 (0.10)	-0.20 (-1.25)	40	-0.04
(6)	DSALE	-0.01 (0.32)	0.07 (0.20)	-0.09 (-0.24)	0.20 (0.56)	0.11 (0.33)	40	-0.10
(7)	DNETE	0.01 (0.23)	-0.04 (-0.13)	0.11 (0.32)	-0.24 (-0.72)	-0.07 (-0.21)	40	-0.09
(8)	DNETS	0.0 (-0.02)	-0.12 (-0.40)	0.09 (0.31)	-0.18 (-0.65)	-0.08 (-0.28)	40	-0.09

a Significant at the 10% level.
b Significant at the 5% level.
c Significant at the 1% level.
d P-2 = 1, if insider trading occurs between 179 calendar days before to 120 days before the announcement of tender offer, otherwise P-2 = 0. Other event periods are incremented by 60 days respectively. For instance, P0 = 1, if insider trading occurs between 59 days before the announcement day and the announcement day, otherwise P0 = 0. In Panel A, T = 1, if tender offers is successful, 0 otherwise. In Panel B, T = 1, if tender offer is unsuccessful, 0 otherwise.

are also legally classified as large shareholders of the target firms prior to the takeover announcement.

Models (4) through (8) in panel B of table 2 examine insider trading in unsuccessful target firms. In contrast with Panel A, neither the executives nor the large shareholders in unsuccessful target firms display any unusual changes in normal trading activity either before or after the announcement of the takeover. There is no increase in stock purchase activity in advance of the takeover announcements, and no increase in net stock sale activity following the takeover announcements.[8]

To test the sensitivity of empirical methodology, the results shown in tables 2 have been replicated using as the dependent variables the number of purchases, sales, and net transactions instead of the dollar volume. In every case, using the number of transactions give similar results. The results have also been replicated after excluding firms with less than three different calendar months of insider trading activity. Again the results do not change. Hence, the conclusions are not sensitive to the particular definition of insider trading activity.

The tests in table 2 have also been replicated using as the dependent variable the unstandardized values of insider trading activity. Using the unstandardized value of insider trading leads to attenuation of the statistical significance of the insider purchasing activity preceding the takeover announcement. This finding suggests that the aggregate total dollar volume of insiders' transactions does not increase prior to the announcements

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[8] Analysis of the residuals shows that while most of the estimated relations exhibit approximately normally distributed residuals, some of the equations exhibit significant deviations from normality in spite of the large number of observations and the grouping procedure. Caution is advised since deviations from normality can affect the significance levels.

of takeover attempts.[9] Hence, the results of table 2 should be interpreted as an average tendency across firms, and not a statement about the total number of shares or the total dollar volume of insider trading in all firms.

One interpretation of the evidence presented in table 2 suggests that on average, the announcement of the takeover does not comes as an surprise to the insiders of the successful target firms, while the insiders of the unsuccessful target firms appear to be surprised by the takeover announcement. The difference between the insider trading in successful and unsuccessful target firms is noteworthy, since the positive announcement period abnormal returns to the target firms provide incentives for all insiders to adjust their transactions, regardless of the success of the takeover. The evidence in table 2 suggests that insiders of the successful target firms which include merger targets are more likely to possess advance information about the takeover than the insiders of the unsuccessful target firms.

An alternative interpretation of the evidence in table 2 suggests that executives in unsuccessful target firms are more confident about defeating the offer. Since insider trading restriction do not allow insiders to reverse their transactions following the defeat of the takeover attempt, insiders do not increase their holdings in advance of the takeover announcement.[10] Under either interpretation, the expectation of the corporate executives differ between the successful and unsuccessful takeover targets.

The evidence in table 2 also indicates that while the insider trading regulations deter some insiders from trading immediately prior to the

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[9] Keown and Pinkerton (1981) also find that aggregate total number of insiders' purchases do not increase prior to the announcement of the takeover.

[10] Section 16(b) of the Securities and Exchange Act requires any insider profits from transactions within a six-month period to be returned to the corporation.

announcement of the takeover, insiders are not prevented from trading
actively, since insiders increase their stock purchases and reduce their stock
sales as early as six month prior to the announcement of the takeover. This
evidence suggests that insider trading regulations are effective in deterring
some insider trading but not totally eliminating them. Therefore, it is
expected that insider trading can provide a test of the managerial-shareholder
conflict of interest hypothesis in corporate takeovers.

The next set of tests examine the predictions of the conflict of interest
hypothesis in target firms where the target management publicly opposes the
tender offer. In most instances, managers of target firms announce their
reaction to the takeover attempt within a few days of the takeover
announcement. Managerial opposition to the takeover can be a sign of
entrenchment, or a sign that managers are acting in the best interest of their
shareholders. By resisting some takeover attempts, the management can
increase the initial offer or generate higher offers from other bidder firms.
However, too much resistance can result in failure of the current takeover
attempt, preclude any future takeover offers, and thereby lead to a reduction
in stock price of the target firm.[11] Hence, managerial opposition per se need
not be evidence of conflict of interest. To determine if managers expect
their opposition to lead to lower stock prices, the next set of tests examine
executives' transactions in takeover targets where the incumbent target
management opposes the takeover attempt.

The results are presented in table 3. Model (1) examines the changes in
normal executive purchase activity in unsuccessful target firms around the

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[11] Bradley, Desai, and Kim (1983) show that it is the failure of a takeover
offer to materialize over the next five years that reduces the stock price of
an unsuccessful target firm.

Table 3

Weighted least squares regression of insiders' transactions in unsuccessful target firms where management opposes the takeover attempt against dummy values representing 60 calendar day time periods around the announcement of corporate takeover. The variable DPURE denotes dollar value of purchases, DSALE, dollar value of sales, and DNETE, net dollar value of transactions. The t-statistics are shown in parentheses.a

Model No	Dependent Variable	Constant	P_{-2} T	P_{-1} T	P_0 T	P_1 T	N	Adjusted R2

Panel A: Insider trading in unsuccessful target firms where management opposes takeover attempt

(1)	DPURE	0.0 (-0.31)	0.28 (1.27)	0.01 (0.06)	-0.11 (-0.50)	-0.22 (-1.08)	40	-0.03
(2)	DSALE	-0.01 (-0.22)	0.20 (0.36)	-0.18 (-0.34)	-0.20 (-0.38)	-0.15 (-0.31)	40	-0.10
(3)	DNETE	0.0 (0.10)	-0.12 (-0.24)	0.22 (0.44)	0.17 (0.35)	0.29 (0.64)	40	-0.09
(4)	DNETS	-0.01 (-0.34)	-0.18 (-0.21)	-0.19 (-0.21)	-0.18 (-0.30)	-0.06 (-0.12)	40	-0.15

a   The dummy variable P-1 equals 1 if insider trading occurs between 179 calendar days to 90 days before the announcement of tender offer, otherwise P-1 equals zero. P0 equals 1 if trading occurs between 89 days before the announcement day to the announcement day, otherwise P0 equals zero. P1 equals 1 if trading occurs from 1 day after to 90 days after the tender offer announcement day, otherwise P1 equals zero. P2 equals 1 if the trading occurs between 91 days to 180 days after the tender offer announcement day, otherwise P2 equals zero. The dummy variable T equals 1 if target management opposes the unsuccessful tender offer, 0 otherwise.

announcement of the hostile takeover attempt. Similar to panel B of table 2, model (1) of table 3 indicates that prior to the announcement of the takeover, executives display no unusual changes in purchase activity. This evidence suggests that executives of target firms are surprised by the hostile takeover announcement. Furthermore, following the announcement of the takeover, executives of the target firms in unsuccessful, hostile takeovers do not exhibit any unusual changes in their normal purchase activity. Model (2) examines the changes in normal executive sale activity around the hostile takeover announcement. Once again, there are no unusual changes in executive sale activity either prior to or following the takeover announcement. Equation (3) examines the changes in net executive purchase activity. Equation (3) summarizes the result that no unusual changes occur in net executive purchase activity in unsuccessful target firms either prior to or following the announcement of the hostile takeover attempt. Model (4) shows that similar to the executives, the large shareholders also do not display any unusual changes in their stock trading activity in opposed, unsuccessful target firms.

The evidence presented in table 3 helps determine the validity of the conflict of interest hypothesis. First, similar to the results presented in panel B of table 2, lack of preannouncement trading activity indicates that executives in unsuccessful hostile takeovers do not have advance information about the takeover attempt. Consequently, executives do not have time to react to the takeover attempt prior to the announcement of the takeover. Following the announcement of the takeover, executives do not engage in increased stock sales to reduce their losses, since the takeover generates a lot of public attention and increased stock sales would expose the executives to costly lawsuits. However, if the executives of the target firms expect

their opposition to reduce the stock price of their own firms, then they would also be expected to reduce their normal stock purchases. Equation (1) in table 3 indicates that while there seems to be some decrease in normal stock purchases following the announcement of the takeover, the decline is not statistically significant. Hence, the available evidence suggests that any conflict of interest between managers and their shareholders is not severe.

The evidence presented next attempts to evaluate the conflict of interest hypothesis from the perspective of the bidder managers. In bidder firms, there is no uncertainty about advance information, since the top executives of the bidder firms are responsible for the takeover attempt. The hypothesis examined is whether the bidder executives are aware that some takeover attempts are likely to reduce the stock price of their own firms and whether they attempt to reduce their associated wealth losses as a result of the takeover attempt by trading shares in their own firms.

The results are shown in table 4. Table 4 separates the transactions of executives in bidder firms by the announcement stock price reaction of the bidder firm. The takeover is defined as profitable or unprofitable depending on the sign of the abnormal stock price reaction to the bidder firm around the takeover announcement. Using both the familiar market model and the mean returns model, the prediction errors to the bidder firms are computed. The prediction errors are then cumulated from ten days before to ten days after the takeover announcement day. If the eleven day cumulative prediction error is positive, then the takeover is defined as a profitable takeover for the bidder firm, otherwise the takeover is classified as an unprofitable takeover

Table 4

Weighted least squares regression of executives' transactions in their own firms in successful and unsuccessful bidder firms against dummy values representing 60 calendar days around the announcement of corporate takeover. The variable DPURE denotes dollar value of purchases, DSALE, dollar value of sales, and DNETE, net dollar value of executives' transactions. The t-statistics are shown in parentheses.c

Model No	Dependent Variable	Constant	P_{-2} T	P_{-1} T	P_0 T	P_1 T	N	Adjusted R2
Panel A: Insider trading in unprofitable bidder firms								
(1)	DPURE	0.0 (0.17)	0.0 (-0.07)	-0.09 (-1.33)	-0.10 (-1.48)	0.10 (1.46)	40	0.05
(2)	DSALE	0.01 (0.73)	-0.02 (-0.40)	-0.09 (-1.48)	-0.09 (-1.37)	-0.20 (-3.10)b	40	0.20
(3)	DNETE	0.0 (-0.66)	0.07 (1.14)	0.07 (1.20)	0.05 (0.75)	0.16 (2.60)b	40	0.13
Panel B: Insider trading in profitable bidder firms								
(4)	DPURE	0.0 (0.20)	-0.07 (-0.94)	-0.15 (-2.07)a	0.08 (1.07)	0.01 (0.08)	40	0.06
(5)	DSALE	0.0 (0.06)	0.01 (0.14)	0.01 (0.12)	-0.09 (-1.15)	0.04 (0.53)	40	-0.06
(6)	DNETE	0.0 (-0.11)	0.02 (0.23)	-0.07 (-0.93)	0.10 (1.43)	0.0 (0.03)	40	-0.03

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a Significant at the 5% level.
b Significant at the 1% level.
c P-2 = 1, if insider trading occurs between 179 calendar days before to 120 days before the announcement of tender offer, otherwise P-2 = 0. Other event periods are incremented by 60 days respectively. For instance, P0 = 1, if insider trading occurs between 59 days before the announcement day and the announcement day, otherwise P0 = 0. In Panel A, T = 1, if the announcement period abnormal return is negative, 0 otherwise. In Panel B, T = 1, if the announcement period abnormal return is nonnegative, 0 otherwise.

for the bidder firm.[12]

Equations (1) through (3) of table 4 show that in unprofitable bidder firms, executives do not display trading patterns predicted by the conflict of interest hypothesis. In unprofitable successful takeovers, executives do not increase their stock sales before the announcement of the takeover offer, but rather marginally decrease both their stock purchases and stock sales. This evidence suggests that executives in bidder firms postpone their transactions in order not to give an appearance of impropriety. Also, there is some evidence which shows that executives in unprofitable bidder firms in fact increase their net purchases following the announcement of the takeover. This evidence suggests that executives in unprofitable bidder firms do not regard failure of the takeover attempt as a signal of unusually bad performance for their firm.

Equations (4) through (6) in table 4 show the transactions of the executives in profitable bidder firms around the announcement of the takeover attempts. The evidence suggests that the executives in profitable bidder firms do not attempt to use their advance information to adjust their trading activity prior to the announcement of the takeover attempt. The adjusted R-square in equation (6) is a small negative number. A likely reason for the lack of preannouncement trading patterns is that the security price effects of takeover announcements for the bidder firms are small and on average statistically indistinguishable from zero. Hence, the incentives to trade are small for the bidder executives. Also, there is no systematic pattern of executive trading during the post announcement period.

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[12] Table 4 reports the results of using the market model prediction errors to estimate the profitability of the takeover. The results using the mean adjusted model are similar and not shown. See Brown and Warner (1980, 1985) for a examination of the event time methodology.

The tests reported in tables 2, 3, and 4 have also been replicated using only the transactions of the top executives, defined as i) chairmen of the boards of directors, ii) presidents, and iii) insiders who are classified as controlling persons, (defined as large shareholders, who are also officers and directors of the firm). The transactions of the top executives around corporate takeovers are similar to the transactions of all executives. However, the substantial reduction in sample size results in lower statistical significance as well as more significant deviations from normality. Consequently, it is more difficult to make statistical inferences from the trading patterns of the top executives and hence, top executives' transactions are not reported here.

V- Conclusions and Implications

This paper has examined the trading patterns of corporate executives around the announcement of takeover attempts. The evidence indicates that executives in successful target firms reduce their stock sales and increase their stock purchases up to six months prior to the announcement of the takeover attempt. This evidence suggests that some executives in successful target firms have advance information about the takeover attempt and use their advance information to adjust their transactions in their own firms. Apparently, insider trading regulations do not eliminate all advance trading by insiders based on upcoming good news about their firms.

In contrast with the successful target firms, the executives in unsuccessful target firms do not exhibit any unusual changes in their trading patterns prior to the announcement of the takeover. For the unsuccessful target firms, the announcement of a takeover results in an abnormal stock price increase that is comparable to that of the successful target firms, and hence executives in all target firms would have similar incentives to adjust their transactions. The lack of preannouncement trading activity in unsuccessful target firms suggests that takeover announcements come as a surprise to the executives of the unsuccessful target firms. Alternatively interpreted, the evidence suggests that executives in unsuccessful target firms are more confident about defeating the takeover attempt. Under either interpretation, the transactions of executives in successful and unsuccessful target firms signal their differing expectations about the effects of the takeover attempts.

Examination of the trading patterns of executives in hostile, unsuccessful target firms also shows no unusual changes either before or after the announcement of the takeover. The lack of a significant increase in

normal executive sale activity following the announcement is attributed to the insider trading regulations. An appearance of impropriety at a time of increased public attention exposes executives to potential lawsuits. However, insiders cannot be sued for refraining from purchasing stock. Hence, the lack of a statistically significant reduction in normal executive purchase activity following the takeover announcement is inconsistent with the conflict of interest hypothesis.

Examination of the trading patterns of executives in profitable and unprofitable bidder firms also uncovers no relation between profitability of the bidder firm and preannouncement executive trading activity. Executives in unprofitable bidder firms do not reduce their stock purchases or increase their stock sales prior to the announcement of the takeover. This evidence indicates that on average executives in bidder firms do not expect the takeover attempt to reduce the stock price of their own firms.

The evidence presented in this paper does not find support for an extreme view of the conflict of interest between managers and their shareholders. Executives do not sell their stockholdings in advance of stock price declines which they may have caused. This evidence suggests that both legal and private constraints on insiders are reasonably effective in preventing an extreme conflict of interest between managers and their shareholders.

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