Agency Issues in Compensation Contract Design: Evidence from the Change in Accounting for Stock Option Repricings

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Abstract

We investigate the extent to which managers respond to agency issues embedded in compensation contracts by examining their actions in response to their firms repricing stock options through 6-and-1 option exchanges (cancelling underwater options and granting replacement options at least six months and one day later). Though a mechanism to avoid the expense with traditional repricings, 6-and-1 exchanges create potential agency conflicts, as managers, anticipating the regrant date, gain more by taking actions to lower the stock price before the grant of replacement options. Examining abnormal accruals and stock returns of a sample of 168 firms offering 6-and-1 exchanges from 2000 to 2002, we find no evidence that managers take deliberate actions to lower the stock price throughout the six-month window between option cancellation and regrant. However, our analysis of returns around the regrant date suggests that firms take actions to lower the stock price just before and delay actions that increase the stock price until just after replacement options are regranted. Our results suggest that this behavior is less pronounced for firms with better governance structures, suggesting that good governance can deter opportunistic management behavior.

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1. Introduction

We investigate the extent to which managers respond to agency issues embedded in compensation contracts and whether firms' governance structures mitigate managers' responses. In our setting, an accounting change requiring firms to record an expense for repriced stock options led to a new form of option repricing, a "6-and-1 option exchange," which avoided the expense associated with a traditional repricing but created the incentive for managers to take actions not in the best interest of shareholders. We examine the extent to which managers responded to the adverse incentives in the 6-and-1 option exchange.

FASB Interpretation 44 required firms to record compensation expense when they reprice stock options, either by changing the exercise price of existing options or by cancelling and reissuing options at a different exercise price within a six-month period. Firms could, however, cancel and commit to reissue options more than six months later without the exchange being classified as a repricing under FIN 44. Firms that cancelled underwater options and regranted replacement options six months and one day later ("6-and-1 option exchanges") seemingly repriced options without recording the expense required by FIN 44. [1] These 6-and-1 exchanges first received attention when Sprint offered one in October 2000 (Ferracone and Borneman [2001]; Sutton and Donohue [2001]; Norris [2000]).

Despite the popularity of 6-and-1 option exchanges, they are not perfect substitutes for repricing. Specifically, 6-and-1 exchanges provide managers the incentive to take actions that decrease the stock price in the six-month window between the cancellation of the old options and the grant of their replacements. Because most options are granted with the exercise price equal to the market price on the grant date, a decline in the stock price during the six-month period results in a lower exercise price on the replacement options and thus a higher potential gain at option exercise. This setting, where agency issues have been a large concern among many constituents,

[1] Firms could avoid this expense until fiscal years beginning after June 15, 2005, when firms are required to account for options using the fair-value method as defined in SFAS 123(R) (Financial Accounting Standards Board [2004]). Under SFAS 123(R), firms must record an expense for all option grants.

provides a clearly defined window within which to investigate potential unintended consequences associated with contract design.

Using a sample of 168 6-and-1 option exchanges for 2000, 2001, and 2002, we examine whether managers appear to engage in activities that lower the stock price before granting replacement options. These tests are motivated by prior research (Aboody and Kasznik [2000]; Yermack [1997]), which finds evidence of this behavior around routine option grants, and allegations in the popular press that 6-and-1 exchanges lead to undesirable actions by managers (Sutton and Donohue [2001]; Norris [2002]). In our sample of 6-and-1 exchanges, most are available to executives (62%), suggesting that executives have an incentive to take actions to temporarily decrease the stock price during the six-month period. The average time between the cancellation and regrant dates is just over six months, implying that firms regrant almost immediately after they can regrant without recording an expense and that managers have a high degree of certainty regarding the regrant timing.

Examining stock returns and abnormal accruals during the six-month window, we find no evidence of this behavior throughout the window. However, our examination of stock returns around the regrant date suggests that firms take actions that decrease the stock price just before and delay actions that increase the stock price until just after replacement options are regranted. Specifically, we find that industry-adjusted returns in the 20-day period just before the regrant date are significantly negative and that they increase significantly in the 20-day period just after the regrant date. We find this effect more pronounced for firms with worse governance suggesting that better corporate governance can deter unwanted behavior.

Our results differ from those in prior research around 6-and-1 option exchanges. Coles, Hertzel, and Kalpathy (2006) examine the extent to which managers responded to the incentives created in 6-and-1 exchanges and find evidence of negative abnormal accruals in the quarters leading up to the regrant date but no evidence of negative abnormal stock returns in the same period. They interpret their results as evidence that managers manipulate accruals but that the

stock market sees through those actions. Our analysis suggests that the negative abnormal accruals they detect may be driven by their choice of control group against which to compare their sample firms. Second, unlike Coles, Hertzel, and Kalpathy (2006), we find evidence of undesirable management behavior that *does* appear to be captured in stock returns in the short window around the date that replacement options are granted. Finally, we examine the effect of governance structure on these actions and find the undesirable management behavior to be less pronounced for better governance firms. Prior studies (for example, Aboody and Kasznik, 2000) examining managers' behaviors around routine option grants have not considered the role of corporate governance in mitigating misbehavior.

Our study contributes to the literature in several ways. First, we document that firms will significantly alter the economics of compensation contracts to avoid accounting charges, even when those charges have no effect on cash flows, providing additional evidence of the effects of accounting on firm behavior. Second, contrary to prior work on 6-and-1 exchanges, we find evidence in stock returns of opportunistic management behavior. Third, our results suggest that the quality of firms' governance structures can affect their flexibility in designing compensation contracts, with higher quality governance structures opening the possibility of entering into potentially controversial contracts that may at first glance seem to present undesirable agency issues. Thus, we provide evidence that good governance limits the extent to which management can engage in self-serving behavior.

Section 2 provides background information on traditional repricing and 6-and-1 stock option exchanges. Section 3 provides a description of the sample and the data used. Section 4 examines managerial actions throughout the six-month window between the cancellation and regrant dates. Section 5 examines managerial actions around the regrant date itself. Section 6 concludes.

2. Background

Before December 15, 1998, firms repricing stock options generally did not have to record an expense. However, in December 1998, the FASB announced that it was considering requiring firms to record compensation expense associated with option repricings. The FASB issued Interpretation 44, effective on July 1, 2000, for repricings occurring after December 15, 1998, which requires firms repricing stock options to record expense in accordance with the "variable method" of accounting for stock options.[2] Carter and Lynch (2003) document that repricing decreased significantly in 1999 as a result of the December 1998 FASB announcement.

Included in the FASB's definition of stock option repricing were both changes in the exercise prices of existing options and cancellation and reissue of options at a different exercise prices within six months. However, with 6-and-1 option exchanges, before the requirement to expense all option grants effective with SFAS 123 (R) as of June 15, 2005, firms were able to avoid the expensing requirements of FIN 44 by offering optionholders the opportunity to cancel existing options in exchange for replacement options to be granted at least six months and one day in the future (if the employee remains with the firm). The firm could commit at the offer date to most of the terms of the replacement options. But it could not commit to an exercise price for the replacement options until the regrant date other than indicating whether that price would be at or different from the fair market value of the stock at that date. In addition, if an option were cancelled, all options granted within the six-month period before *and* the six-month period after the cancellation date would be considered replacement options and thus would receive variable accounting treatment. As a result, firms often structured these exchanges to undo grants made in the six-month period before the cancellation date and to prevent grants during the six-month period after the cancellation date.

While firms were not prevented from delaying the regrant of options after cancelling them before FIN 44, anecdotal evidence suggests that firms began to offer these exchanges to

[2] The variable method of accounting for stock options requires that firms record compensation expense each period in the future that the options remain unexercised and the stock price increases.

avoid recording an expense associated with repricing as required by FIN 44 (Sutton and Donohue [2001]; Grant and Ciccotello [2002]; Norris [2002]). Thus, the introduction of the 6-and-1 exchange by Sprint provided firms with an alternative to repricing that avoids accounting charges. However, this alternative introduced agency issues not associated with traditional repricings. Because the new exercise price was typically set at the market price on the regrant date, participants in the exchange program gained more from the future replacement options if they could take actions to depress the stock price during the six-month window between the date the old options were cancelled and the date the replacements were granted. Because firms specified the details of the exchange in the offering, the regrant date was one that optionholders could predict with near certainty. A finding that managers responded to the incentives created in 6-and-1 exchanges would be consistent with prior research that finds that managers time the release of news around option grants and traditional repricings in ways that increase their wealth (Yermack [1997]; Aboody and Kasznik [2000]; Callaghan, Saly, and Subramanian [2004]).

Our study differs from prior work along several dimensions. Prior research suggests that firms may be using 6-and-1 exchanges as an alternative to traditional repricing (Balachandran, Carter, and Lynch [2004]; Kalpathy [2004]; Zamora [2003]). However, only Coles, Hertzel, and Kalpathy (2006) examine the extent to which managers responded to the incentives created in 6-and-1 exchanges. They find evidence of negative abnormal accruals throughout the six-month window but no evidence of negative abnormal returns in the window. They interpret their results as evidence that managers manipulate accruals but that the stock market sees through their actions. Unlike Coles et al. (2006), we (1) test the statistical significance of stock returns in the six-month window and (2) we examine a shorter window immediately preceding the regrant. Second, unlike Aboody and Kasznik (2000), which examines routine option grants for CEOs, we examine a one-time, significantly larger stock option grant that is generally available to all employees, providing a larger employee base a greater incentive to lower the stock price. Finally, unique to our study relative to Coles et al. (2006) or Aboody and Kasznik (2000), we incorporate

corporate governance characteristics, allowing us to provide new evidence on the ability of good governance to deter unwanted behavior and increase firms' flexibility in designing compensation contracts.

3. Sample and data

In this section, we describe our selection of firms that choose repricing through 6-and-1 option exchanges. We also provide descriptions of the sample firms, as well as a comprehensive description of 6-and-1 option exchange characteristics.

3.1 Sample selection

We identify firms offering 6-and-1 option exchanges from a search of SEC filings in Lexis/Nexis.[3] We exclude filings that match the search string but either pertain to duplicate events or do not pertain to a firm engaging in a 6-and-1 exchange. In addition, we eliminate events with no offer date available and for which the firm is not included on CRSP. The final sample consists of 168 firms offering 6-and-1 exchanges between January 1, 2000, and June 30, 2002. We collect data related to the 6-and-1 exchanges from tender offer statements filed with the SEC and from other SEC filings, including the 10K, 10Q, and proxy statement.[4]

3.2 Features of 6-and-1 option exchanges

Table I presents descriptive statistics related to the characteristics of 6-and-1 option exchanges offered by the 168 sample firms. Interestingly, despite the new accounting for repricing taking effect in July 2000, we find evidence of only six option exchange programs being offered in 2000. Our sample also includes 138 option exchanges offered in 2001 and 24 offered

[3] The search string used is "option! w/10 six month w/10 one day and filing-date = 2000 [2001; 2002] and not form-type (proxy plm)". This search yields 1,419 citations as of April 12, 2002.

[4] In March 2001, the SEC issued an order requiring firms offering to exchange options to file a tender offer statement. Accordingly, our primary data sources for option exchanges before March 2001 are SEC filings such as the 10Q, 10K, and proxy statement. For option exchanges after March 2001, we use the tender offer as our primary source of data, supplemented by data from the 10Q, 10K, or proxy statement.

in 2002 through June 30, 2002. Table II provides the industry distribution of firms in our sample. Firms offering 6-and-1 exchanges are high technology in nature, with 80.9% of firms falling in SIC codes 73, 36, 35, 48, or 38.

Our data suggests that the tender offer statement filed with the SEC is the primary mechanism through which the market can learn of an exchange. Of the 168 sample firms, we locate newswire announcements regarding the option exchange program for only 47 firms. Of those 47 firms, 18 announcements occur before filing the tender offer, 24 announcements occur on the offer date listed in the tender offer, and 5 announcements occur after this offer date.

Despite the expense with traditional repricings being noncash, 85% of the firms indicate explicitly in their tender offers that the option exchange are designed as 6-and-1 exchanges rather than traditional repricings to avoid recording expenses. Tactics to avoid classification as a traditional repricing mentioned in firms' tender offers include (1) cancelling or requiring participants to exchange options granted in the six-months before the offer date (77% of firms), (2) excluding individuals receiving grants in the six-months before the offer date (10% of firms), and (3) not allowing option grants in the six-months after the cancellation date (98% of firms). These data suggest that the motivation for the structure of these exchanges may be to avoid the expense that traditional repricings require. Thus, firms appear to go to considerable lengths to secure favorable accounting treatment and accounting for repricing appears to substantively change the economics of the option contracts that firms offer.

Despite concerns about agency issues associated with 6-and-1 option exchanges, 58% are available to at least some board members. Of these, 31% are available to employee board members only, and 27% are available to all members. In addition, 62% are available to at least some executives, and 54% are available to all executives. Sixty-six percent of the firms grant one new option for each old option cancelled (an option exchange ratio of 100%), while 34% of the firms have an option exchange ratio of less than 100%. One half of the firms set a new vesting period for the new options, while the rest retain the vesting period from the cancelled options,

giving optionholders vesting credit for the time they held the cancelled options. An average of 59.5% of the firms' option portfolio is eligible for exchange. On average, optionholders tender only 58.5% of their eligible options.

The mean (median) number of trading days between the offer and cancellation dates is 24.9 (23.0) days. The mean (median) number of trading days between the cancellation and regrant date is 127.8 (126.0) days; the window ranges from a minimum of 120 trading days to a maximum of 147. With approximately 20 trading days in a month, the length of this window suggests that most firms regrant options just after the six-month period ends. This also suggests that managers can reasonably predict when regrants will occur, and this predictability of the regrant day can facilitate the timing any attempts to decrease the stock price.

4. Managerial actions during the six-month window between cancellation and regrant date

In this section, we examine stock returns and discretionary accruals in the six-month window between the cancellation and regrant dates to assess whether managers respond to the incentive to take actions to lower the stock price in that six-month period.

4.1 Stock returns

Stock returns must decline for managers to exploit the 6-and-1 exchange. Thus, we examine raw, market-adjusted, and industry-adjusted stock returns in the six-month window. Negative raw returns during the six-month period are sufficient for the value of managers' stock option compensation to be greater with 6-and-1 option exchanges. However, negative raw returns can arise from poor market or industry performance or from managers' actions. Therefore, we also examine market-adjusted and industry-adjusted returns, which isolate the effects of managers' actions on stock price, as our proxy for whether managers respond to the incentives created in 6-and-1 exchanges. While we present both market-adjusted and industry-adjusted returns, substantial industry clustering in our sample (see Table II) suggests that

industry-adjusted returns may capture actions of management better than market-adjusted returns because industry-adjusted returns have removed the stock price effects of industry-related factors to leave just firm-specific effects.

We calculate market-adjusted returns by subtracting the daily value-weighted stock return from CRSP from the firm's daily stock return. We calculate industry-adjusted returns by subtracting the median daily stock return of all firms on CRSP in the same two-digit SIC code from the firm's daily stock return.[5] For this analysis, we eliminate three firms where the exchange occurred in a subsidiary and stock returns for that subsidiary were not available and 13 firms where the announced exchange appeared not to have been completed (that is, the options were never cancelled, the firm filed for bankruptcy or was acquired, etc.), and three firms for which stock returns data is not available during the six-month window, leaving a sample of 149 firms.

Figure 1 shows stock returns from the cancellation date through 20 trading days after the regrant date for this sample of 149 firms. Table III presents raw returns, market-adjusted returns, and industry-adjusted returns during the six-month window between the cancellation and regrant dates for these 149 firms.[6] Cumulative raw returns are significantly negative during the six-month window (mean = -20.4%; median = -26.4%). Cumulative market-adjusted returns also are significantly negative during the six-month window (mean = -13.2%; median = -18.1%). However, industry-adjusted returns are not consistent with executives taking deliberate action to temporarily lower the stock price during this window. In fact, the mean return of 2.3% is positive, though not different from zero; the median return of -0.7% is not significant at conventional levels. If one is willing to view the market-adjusted returns as an indication of managerial actions, the results suggest that executives may be taking actions to lower the stock

[5] Daily raw, market-adjusted, and industry-adjusted returns are winsorized at 5% (95%) to mitigate the effects of outliers.

[6] Of these 152 firms, we have the actual regrant date for 137 firms. We use the mean number of days between cancellation and regrant for the remainder of the sample (126 trading days) to infer a regrant date for the remaining 15 firms.

price during the six-month window. However, given the substantial industry clustering in our sample, we believe industry-adjusted returns better capture firms-specific managerial actions. If so, these results provide no evidence of managerial actions to lower the stock price during the six-month window.[7]

4.1.1 The impact of governance

We examine whether there is a difference in stock returns during the window between firms with better or worse governance. If better governance helps deter management self-dealing, we would expect that any sign of negative returns during the window to be more likely for firms with worse governance.

Using data from firms' proxy statements for the fiscal year of offer date or repricing date, we construct three variables to capture the characteristics of the board of directors as they relate to the quality of a firm's governance structure: board of directors' size, insider participation on the board, and insider participation on the board's compensation committee. Larger boards may be less effective at monitoring management actions (Jensen [1993]; Yermack [1996]); boards may be less effective at monitoring management actions when they are composed of more inside directors (Rosenstein and Wyatt [1990]; Byrd and Hickman [1992]); and the presence of insiders on the board's compensation committee may lead to compensation decisions in favor of management but not in the best interest of shareholders (Newman and Mozes [1999]). Thus, higher (lower) values of these three variables generally indicate lower (higher) quality governance structure.

We measure board size as the number of members of the board of directors. Since board size is highly correlated with firm size (the Pearson correlation coefficient between the number of

[7] It is possible investors' expectations that managers will take such actions are reflected in price at the announcement of the exchange prior to the 6-month window. However, using an industry model (median daily returns of the firm's 2-digit SIC code) whose parameters are estimated using days –210 to –10 to calculate abnormal returns, we find that cumulative abnormal returns over days –1 to +1, where day 0 is the earlier of the announcement or tender offer filing date, are not different from zero at conventional levels.

members of the board and firm assets is 0.33) and because we are interested in measuring governance, not firm size, we measure board size (BOD_SIZE) as the number of members on the board of directors per million dollars in firm assets, where assets are measured at the beginning of the fiscal year. We measure the proportion of the board of directors consisting of insiders (BOD_INS) as (number of board members that are employed by the firm / total number of board members) and the proportion of the compensation committee consisting of insiders (CC_INS) as (number of compensation committee members employed by the firm / total number of compensation committee members).

Each of these proxies characterizes the governance implications of a firm's board structure with error. In addition, since our analysis requires a dichotomous governance variable, we need to aggregate our proxies. Therefore, we use principal components analysis to capture the fundamental dimensions of board characteristics as they relate to corporate governance inherent in these three variables and retain one factor.[8] We equally weight the standardized value of each these variables to obtain our proxy, such that higher values indicate poorer governance. We then create an indicator variable capturing good governance equal to one if the firm's governance factor is less than the median and zero otherwise. Of the 168 firms in our sample, data are available to classify 159 firms as either worse governance (79 firms) or better governance (80 firms). Of these, 72 worse governance firms and 75 better governance firms have stock returns data in the six-month window.

We find that executives are more likely to participate in the 6-and-1 exchange at firms with worse governance. Specifically, executives participate in 69% of exchanges in firms with worse governance, compared to 57% in firms with better governance (this difference is significant at $p < 0.06$ using a one-tailed test). Yet, we find no evidence that stock returns in the six-month window are more negative for worse governance firms. Specifically, Table III Panels

[8] There was only one factor with an eigenvalue greater than one; it retains 44% of the variance in the original three variables.

A and B present returns in the six-month window separately for 72 worse governance and 75 better governance firm for which stock returns data is available in the window. Results are consistent with those of the sample as a whole; cumulative raw returns and cumulative market-adjusted returns are negative for both groups, but there is no evidence of negative industry-adjusted returns during the window for either group. Looking further, if executives are taking actions to decrease the stock price during the six-month window to increase their returns from options scheduled to be regranted at the end of the window, firms offering exchanges in which executives participate should see lower returns in the window than firms in which executives do not participate. However, our results (untabulated) reveal no significant difference between these two groups of firms in either raw returns, market-adjusted returns, or industry-adjusted returns during the window.

Our conclusion that stock returns do not provide evidence of undesirable management behavior is consistent with that in Coles, Hertzel, and Kalpathy (2006).[9] That study, however, finds evidence that firms record negative discretionary accruals in the three quarters preceding the regrant date in an attempt to suppress the stock price prior to the regrant of replacement options. We investigate this possibility next.

4.2 Discretionary accruals

We examine whether managers record negative discretionary accruals during the six-month window between option cancellation and regrant in an attempt to lower the firm's stock price before regrant of replacement options. In particular, we estimate discretionary accruals

[9] Coles, Hertzel, and Kalpathy (2006) examine market-adjusted returns for the three quarters leading up to the regrant date and conclude that stock price performance appears relatively flat during that period. However, they do not provide a statistical test of their significance. Our results suggest that market-adjusted returns are significantly negative during this time period. We find that industry-adjusted returns are not significantly different from zero during this window.

during the two quarters before the regrant date. Then, we compare them to discretionary accruals recorded in the two quarters before the repricing date for a control sample of firms that could have elected to offer a 6-and-1 option exchange but that chose to reprice options using the traditional approach instead. Firms offering a traditional repricing also have experienced a decline in stock price, so using this group as a control group controls for both the effect of prior performance on the measurement of discretionary accruals and the incentive to reset the exercise price on options.

We identify firms engaging in a traditional repricing by searching SEC filings in Lexis/Nexis.[10] We exclude filings that match the search string but are not repricings, pertain to duplicate events or events before fiscal year 2000, are mechanical repricings, or are repricings that are executed as 6-and-1 exchanges. We also eliminate repricings where a specific repricing date could not be obtained or where a firm is not included on CRSP or Compustat. The final sample consists of 149 firms repricing options using traditional approaches between January 1, 2000, and June 30, 2002.[11] We collect repricing details from 10Ks and proxy statements.

We estimate discretionary accruals consistent with the method used in Coles, Hertzel, and Kalpathy (2006). Specifically, we calculate nondiscretionary accruals using the Jones (1991) model, estimating separately by quarter and 2-digit SIC code.[12] Then, we calculate discretionary accruals as the difference between actual and nondiscretionary accruals.

[10] The search strings used are (1) "option! w/10 repric! and filing-date=2000 [2001; 2002; < 4/12/2003] and not form-type (proxy plm)", and (2) "repric! or regrant! or reissue! or re-pric! or re-grant! w/10 option! w/10 stock and filing-date=2000 [2001; 2002; < 4/12/2003] and not form-type (10-KA00). These searches yield 6,663 citations as of April 12, 2003. Because of the lag with which repricings are reported, we extend the search for repricing firms exactly one year after the search of 6-and-1 exchange firms.

[11] This compares to a control sample of only 80 firms repricing options between January 1, 1999 and December 31, 2002 in Coles, Hertzel, and Kalpathy (2006).

[12] Coles, Hertzel, and Kalpathy (2006) discuss their choice of the Jones (1991) model to estimate discretionary accruals. They indicate their concern with the modified Jones model is that all of the effect of a change in accounts receivable is placed in discretionary accruals, so that it overstates discretionary accruals for firms experiencing sales growth and understates discretionary accruals for firms experiencing poor performance (such as repricing firms or firms offering 6-and-1 option exchanges). Thus, it would bias their study toward finding negative discretionary accruals for their sample. As a result, they use the [unmodified] Jones (1991) model.

Table IV presents the results of our analysis comparing discretionary accruals for the four quarters before the regrant date for our sample firms with those for the control group of repricing firms. The two quarters before the regrant date are of primary interest, since they fall in the six-month window between the cancellation and regrant dates. However, we report the four quarters before the regrant date for comparison to Coles, Hertzel, and Kalpathy (2006). While both mean and median discretionary accruals are negative in the two quarters before the regrant date, they are not significantly different from the discretionary accruals of our control group in the direction that would be expected if the 6-and-1 exchange firms are recording negative discretionary accruals in an attempt to lower the stock price before the regrant date. In the one quarter in which there is a significant difference (the mean discretionary accruals for quarter -1), the difference is in the direction opposite of expectations – repricing firms record larger negative discretionary accruals than do our sample firms. These results provide no evidence that firms record negative discretionary accruals before regranting replacement options in an effort to lower the stock price before regrant.[13]

Our results contrast the results in Coles, Hertzel, and Kalpathy (2006), who find that by firms offering 6-and-1 exchanges record negative discretionary accruals during the three quarters before regranting options that are significantly larger than their control sample of 80 repricing firms. We attribute this difference to the different control groups in the two studies. Specifically, we use a control sample of 149 firms repricing options between January 1, 2000 and June 30, 2002 (consistent with the period of time our treatment firms offer 6-and-1 option exchanges). Coles, Hertzel, and Kalpathy (2006) use a control group of only 80 firms repricing options between January 1, 1999 and December 31, 2002. (Their treatment firms announce option exchanges between January 1, 2001 and June 30, 2002).[14] This results in considerable differences in estimates of discretionary accruals for the control firms between the two studies, with the

[13] These results are robust to the use of performance-adjusted discretionary accruals (Kothari, Leone and Wassley [2005]).
[14] See their Table 1, p. 180.

direction of the differences in favor of their study finding a significant difference between discretionary accruals between the treatment and control firms and our study not finding one.[15]

Overall, contrary to prior research, our results provide no evidence of managers engaging in behavior throughout the six-month window to lower the stock price before the regrant of replacement options.

5. Managerial actions around the regrant date

Because managers may not take actions to lower the stock price for the entire window, but rather for a shorter period immediately before regrant, we examine stock returns for the 134 firms for which we have an actual regrant date and stock returns data around the regrant date for the 20 trading days (1 month) before and including the regrant date and the 20 days immediately after the regrant date.[16] We expect negative industry-adjusted stock returns in the 20-day period before regrant and/or positive industry-adjusted stock returns in the 20-day period after regrant if managers are taking actions to suppress the stock price before the grant of replacement options.

Figure 2 shows stock returns for the 40 trading days around the regrant date for this sample of 137 firms. Table V Panel A presents the results of the analysis. Cumulative raw returns in the 20 days up to and including the regrant date are significantly negative (mean = -5.2%; median = -5.1%), as are cumulative market-adjusted returns (mean = -4.2%; median = -3.2%) and cumulative industry-adjusted returns (mean = -2.2%; median = -1.4%).

In the 20 days immediately following the regrant, neither cumulative raw returns nor cumulative market-adjusted returns are significantly different from zero at conventional levels.

[15] Specifically, they estimate mean discretionary accruals for repricing firms as follows: Qtr -4 -0.001; Qtr -3 -0.018; Qtr -2 -0.002; Qtr -1 -0.010; Pooled -0.008. Our estimates are as follows: Qtr -4 -0.012; Qtr -3 -0.016; Qtr -2 -0.020; Qtr -1 -0.030; Pooled -0.020.

[16] We include the regrant date in the prior period because the strike price typically is set at the closing stock price on that date. In addition, we exclude firms for which we cannot verify the regrant date, leaving 134 firms in the analysis. Of the 134, 4 are missing data to determine governance status.

However, mean cumulative industry-adjusted returns of 2.7% are significantly positive. In addition, regardless of whether we examine raw returns, market-adjusted returns, or industry-adjusted returns, cumulative returns in the 20-day period following the regrant date are significantly more positive (or less negative) than in the 20-day period preceding the regrant date This pattern is consistent with managers taking actions to suppress the stock price just before the regrant of replacement options.

We next examine whether there is a difference in returns patterns around the regrant date between better and worse governance firms. If better governance helps deter management misbehavior, we expect that the results we see in Table V Panel A will be stronger for firms with worse governance. We define better and worse governance as described in Section 4.

Table V Panel B presents returns around the regrant date for 64 worse governance firms, and Table V Panel C presents returns around the regrant date for 66 better governance firms for which data is available. Results for worse governance firms in Panel B are consistent with those in Panel A. Returns are negative in the 20-day period before the regrant date (mean and median raw returns and market-adjusted returns are significantly negative; median industry-adjusted returns are significantly negative, while mean industry-adjusted returns are negative but not significant at conventional levels, likely due to the small sample size). Generally, returns in the 20-day period following the regrant date are significantly more positive (or less negative) than in the 20-day period before the regrant date (the difference between pre-regrant-date returns and post-regrant-date returns for all cases is significant at least at $p < 0.10$ using a one-tailed test).

On the other hand, results for better governance firms in Panel C are less consistent with management misbehavior around the regrant date than those in Panel B for worse governance firms. In fact, median raw returns, market-adjusted returns, and industry-adjusted returns in the 20-day period following the regrant date are *more* negative than those before the regrant date, although these differences are not significant at conventional levels. This suggests that the overall results in Panel A are driven by worse governance firms.

6. Conclusion

While traditional repricing requires firms to record an earnings charge if the stock price increases after the repricing, prior to the SFAS 123(R) requirement to expense all option grants, firms could avoid this charge by undertaking a 6-and-1 exchange, which was not considered a repricing under FASB definitions. However, 6-and-1 exchanges involve additional costs not associated with traditional repricings. Specifically, agency conflicts arise because executives stand to gain more from the exchange if the stock price drops in the six-month window between the cancellation date and when the replacement options are granted.

Using a sample of 168 6-and-1 option exchanges from 2000 to 2002, we examine whether managers appear to have engaged in activities to temporarily lower the stock price in the six-month window prior to granting replacement options. An examination of both stock returns and discretionary accruals in the six-month window between cancellation and regrant and in the 40-day period around the regrant date reveals no widespread evidence of such behavior. However, our examination of stock returns around the regrant date itself suggests that firms take actions that decrease the stock price just before and delay actions that increase the stock price until just after replacement options are regranted. We find that this effect is less pronounced for better governance firms.

Prior research regarding 6-and-1 option exchanges suggests that firms record negative discretionary accruals throughout the six-month window between the cancellation and regrant dates but that the stock market sees through those attempts to manipulate the stock price. Our analysis suggests that those results related to discretionary accruals may be driven by the control group against which accruals by 6-and-1 exchange firms are compared. We find no evidence of the use of discretionary accruals to lower the stock price. However, our analysis suggests that firms may use an alternative vehicle to affect the stock price in a much shorter window around the regrant date itself.

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Figure 1
Stock returns from cancellation through regrant date for firms offering a 6-and-1 exchange from January 1, 2000 to June 30, 2002

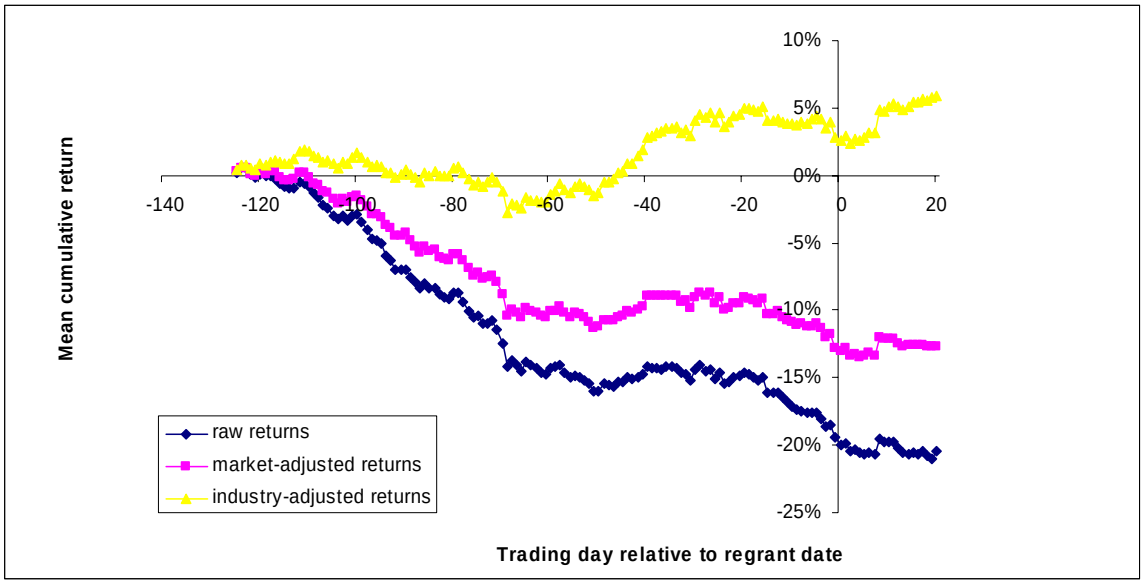

Figure 2
Stock returns from around the regrant date for firms offering a 6-and-1 exchange from January 1, 2000 to June 30, 2002

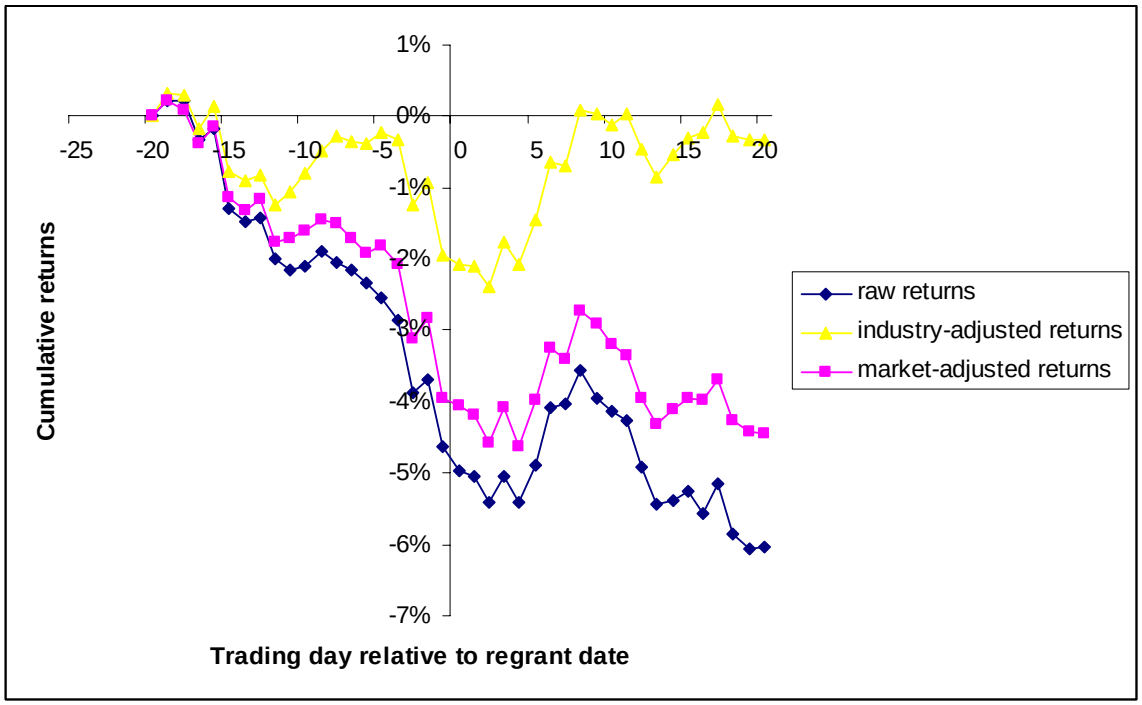

Table I
Description of sample of 6-and-1 option exchanges offered by 168 firms from January 1, 2000 to June 30, 2002

	Number of events with data available	
Year of offer	168	
2000		6
2001		138
2002		24
Announcement of offer	168	
Prior to offer date		18
On offer date		24
After offer date		5
No announcement located in search		121
Trading days between offer date and cancellation date		
Mean	152	23.6
Median		22.0
Trading days between cancellation date and regrant date		
Mean	138	128.1
Median		126.0
Option exchange program available to:		
Inside members of BOD only	147	31%
Inside and outside members of BOD		27%
No members of BOD		42%
		100%
Some executives	157	8%
All executives		54%
No executives		38%
		100%
Option exchange ratio	160	
100%		66%
Less than 100%		34%
Vesting period	153	
Changed		50%
Not changed		50%
Percent of firms indicating that a 6-and-1 option exchange is used to avoid accounting charges	168	85%

Table I (continued)
Description of sample of 6-and-1 option exchanges offered by 168 firms from January 1, 2000 to June 30, 2002

	Number of events with data available	
Tactics used to avoid accounting charges (% of firms using)	143	
Cancel or require exchange of options granted in 6 months prior to offer date		77%
Exempt individuals receiving grants in 6 months prior to offer date from participating		10%
Do not allow option grants in 6 months after cancellation date		98%
Percent of options eligible for exchange	142	
Mean		59.5%
Median		57.5%
Percent of eligible options tendered	133	
Mean		58.5%
Median		60.0%

Table II
Industry distribution for sample of 168 firms offering 6-and-1 option exchanges from January 1, 2000 to June 30, 2002

2-digit SIC	SIC Description	Number (proportion) of firms (168 firms)
73	Business services	82 (48.8%)
36	Electrical and electronic equipment	22 (13.1%)
35	Industrial machinery and equipment	13 (7.7%)
48	Communications	12 (7.1%)
38	Measurement instruments	7 (4.2%)
87	Engineering, accounting, research, management services	7 (4.2%)
28	Chemicals and allied products	3 (1.8%)
Other		22 (13.1%)
Total		168 (100.0%)

Table III

Raw, market-adjusted, and industry-adjusted stock returns from the cancellation date through the regrant date for 149 "6 and 1" option exchanges offered from January 1, 2000 to April 12, 2002

Panel A: All 149 firms

	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns
Mean	-20.4%	-13.2%	2.3%
t-statistic	-6.65 ***	-4.04 ***	0.61
Median	-26.5%	-18.1%	-0.7%
z-statistic	-6.05 ***	-4.24 ***	-0.10

Panel B: 72 worse governance firms

	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns
Mean	-20.9%	-14.2%	0.6%
t-statistic	-4.88 ***	-3.05 ***	0.12
Median	-27.3%	-17.9%	-1.3%
z-statistic	-4.32 ***	-3.03 ***	-0.24

Panel C: 75 better governance firms

	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns
Mean	-19.8%	-12.2%	4.3%
t-statistic	-4.37 ***	-2.56 **	0.79
Median	-26.2%	-18.1%	2.1%
z-statistic	-4.13 ***	-2.88 ***	0.20

* Significant at 10% level, 2-tailed test
** Significant at 5% level, 2-tailed test
*** Significant at 1% level, 2-tailed test

Table IV

Comparison of discretionary accruals of firms that offer a six and one options exchange and firms that reprice options for four quarters prior to the regrant date

	Qtr -4	Qtr -3	Qtr -2	Qtr -1	Pooled
Mean					
6 and 1 firms	-0.012	-0.016*	-0.026***	-0.014***	-0.017***
Repricing firms	-0.012	-0.016**	-0.020***	-0.030***	-0.020***
Test of difference (a)	-0.06	0.01	0.53	-1.98	-0.52
Median					
6 and 1 firms	-0.008**	-0.011***	-0.015***	-0.014***	-0.012***
Repricing firms	-0.002	-0.005**	-0.017***	-0.015***	-0.010***
Test of difference (b)	0.66	0.49	0.10	-1.25	-0.01
# of obs					
6 and 1 firms	149 (129)	153 (131)	155 (136)	155 (137)	612 (533)
Repricing firms	139 (117)	141 (117)	142 (116)	142 (114)	564 (464)

* Significant at 10% level, 2-tailed test
** Significant at 5% level, 2-tailed test
*** Significant at 1% level, 2-tailed test

(a) t-statistic from t-test of difference in means (z-statistic from Mann-Whitney rank sum test of difference in medians).
(b) Sign rank z-statistic testing the hypothesis that the median return is significantly different from zero.

Table V

Raw, market-adjusted, and industry-adjusted stock returns 20 days preceding and following the regrant date for "6 and 1" option exchanges offered from January 1, 2000 to April 12, 2002 by 134 firms that disclosed regrant dates at cancellation date and have stock return data available

Panel A: Stock returns in the 20 days preceding and following the regrant dates

	20 days preceding regrant			20 days following regrant			Test of difference (b)		
	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns
Mean	-5.2%	-4.2%	-2.2%	-0.3%	0.3%	2.7%	-1.79 *	-1.81 *	-1.93 *
t-statistic	-3.07 ***	-2.71 **	-1.43 #	-0.17	0.20	1.55 #			
Median	-5.1%	-3.2%	-1.4%	-3.2%	-1.6%	0.6%	-1.30	-1.44 #	-1.48 #
z-statistic (a)	-3.69 ***	-3.05 ***	-1.79 *	-1.32	-0.92	0.56			

Panel B: Stock returns in the 20 days preceding and following regrant dates for 64 worse governance firms

	20 days preceding regrant			20 days following regrant			Test of difference (b)		
	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns
Mean	-5.5%	-4.8%	-2.8%	1.8%	2.5%	5.1%	-1.67 *	-1.77 *	-1.91 *
t-statistic	-2.25 **	-2.09 **	-1.26	0.55	0.84	1.69 *			
Median	-6.0%	-5.2%	-3.9%	-2.5%	1.3%	2.8%	-1.20	-1.45 #	-1.62 #
z-statistic (a)	-2.63 ***	-2.31 **	-1.52 #	-0.43	0.08	0.98			

Table V (continued)

Raw, market-adjusted, and industry-adjusted stock returns 20 days preceding and following the regrant date for "6 and 1" option exchanges offered from January 1, 2000 to April 12, 2002 by 134 firms that disclosed regrant dates at cancellation date and have stock return date available

Panel C: Stock returns in the 20 days preceding and following regrant dates for 66 better governance firms

	20 days preceding regrant			20 days following regrant			Test of difference (b)		
	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns	Raw Returns	Market-adjusted Returns	Industry-adjusted Returns
Mean	-3.9%	-3.0%	-0.8%	-2.6%	-1.8%	0.3%	-0.37	-0.40	-0.37
t-statistic	-1.61 #	-1.36 #	-0.37	-1.17	-0.92	-0.17			
Median	-4.0%	-1.8%	0.5%	-4.2%	-3.2%	-0.6%	-0.18	-0.30	-0.08
z-statistic (a)	-2.12 **	-1.53 #	-0.39	-1.60 #	-1.24	-0.36			

\# Significant at 10% level, 1-tailed test
* Significant at 10% level, 2-tailed test
** Significant at 5% level, 2-tailed test
*** Significant at 1% level, 2-tailed test

(a) Sign rank z-statistic testing the hypothesis that the median return is significantly different from zero.
(b) t-statistic from t-test of difference in means (z-statistic from Mann-Whitney rank sum test of difference in medians).