

AGENCY ISSUES IN STOCK OPTION '6 AND 1' EXCHANGE: REVISITED

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Abstract

Prior studies (Coles et al., 2006; Carter and Lynch, 2007) do not find significant evidence that managers' actions reduce stock price prior to the option reissue date in the stock option '6 and 1' exchanges. This paper reinvestigates the stock price pattern with a larger sample and a better control group. We find that stock return prior to option reissue date is significantly lower for option exchange programs that include top executives than who do not. Following the option reissue, the stock return is higher for option exchange programs that include top executives than who do not. This finding suggests that top management may have incentives to increase future option payouts by holding down stock price from increasing.

Keywords: Agency Issue, '6 and 1' Exchange, 'Executive' Option Reissues, Stock Return

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We thank participants at the 2011 AAA Mid-Atlantic Regional Meeting in Baltimore, MD., and the 2011 AAA Annual Meeting in Denver, CO., for their helpful comments.

I. Introduction

Employee stock options (ESO) have long played a critical role as an effective means to resolve conflicts of interest between employees and shareholders by aligning employees' interests with those of shareholders. However, deep-out-of-the-money options - that is, options whose exercise price is much higher than the stock price - cannot sufficiently play the role as incentives for managers (Hall and Murphy, 2002). To resolve this problem, firms often implement stock option repricing by canceling the deep-out-of-the-money options and reissuing options with a lower exercise price.⁹

In 2000, FASB issued a new rule, FIN 44 whereby firms engaging in option repricing were required to follow variable method accounting to

recognize any stock price changes for the repriced options in the income statement.¹⁰ However, FIN 44 also provided an exception that if firms reissue the options at least 6 months and 1 day after cancellation, option repricing would simply be considered a new grant of option and firms would be exempt from recording any expense/gains in the subsequent periods in the financial statements. This exception potentially created a new agency issue that managers participating in this program could have an incentive to manage the stock price at the option reissue date, in order to obtain a lower exercise price on these new options (Carter and Lynch, 2007; Coles et al. 2006).

⁹ Nonetheless, option repricing has drawn heavy criticism from the financial press and large institutional investors, in that option repricing rewards management for poor performance and transfers wealth unjustifiably from shareholders to executives (Moore, *The Wall Street Journal*, March 10, 1999, p. C2; Reingold, *Business Week*, February 15, 1999, p. 38). This criticism also leads to SEC's decision that firms listed on NYSE or Nasdaq cannot implement option repricing without shareholders' approval from the effective date, June 30th, 2003.

¹⁰ The variable method requires that firms recognize compensation expense if stock price at the end of fiscal period subsequent to option repricing is higher than the new exercise price of the repriced options. However, if stock price decrease after the period of stock price increase, firms should recognize negative expense up to the cumulative amount of compensation expense firms recognized in the previous periods. According to Carter and Lynch (2003), during the 12-day window between the FASB announcement (December 4, 1998) and the proposed effective date (December 15, 1998), many firms repriced options in an attempt to avoid the variable accounting method

The ability for managers to manage stock prices arise because option reissue dates could be predicted with a high certainty by managers at least 6 months and 1 day before the option reissue dates. Since most options are granted with the exercise price equal to the market price on that day there is an incentive for managers to lower the stock price on the reissue date to obtain a potential gain at the option exercise. Two prior studies examined this issue and found some evidence that managers do attempt to manage earnings downwards using accruals management (Coles et al., 2006; Carter and Lynch, 2007). However, they do not find significant negative impact on stock prices prior to the reissue date. They attribute this to the stock market seeing through the management actions. Lee (2007) using a smaller sample does find some evidence of negative market reaction prior to the reissue date.

We revisit this issue given that the firms' board of directors choosing to initiate an option exchange program can include all employees including top executives or exclude top executives from participating from the exchange. In fact, about a third of all exchange programs during our period of study explicitly exclude top executives from the stock option exchange program. While it is possible for agency cost to arise when top executives are allowed to participate in the option exchange program since they have the ability to engage in and influence managerial actions and earnings which could have an impact on stock price, non-executives do not have the influence or ability to manage earnings or stock price. In addition, excluding top executives from the exchange program provides them no incentives to manage earnings or stock price. None of the earlier studies consider this difference in agency cost by firms engaging in stock option exchange programs when considering managerial actions to impact stock price.

Our paper differs from prior papers on several dimensions. One, we directly study if there is evidence of differences in the stock return pattern during the cancellation and reissue period between stock option exchange firms that include and those who exclude top executives. Second, unlike previous studies that used repricing firms that used the traditional approach of cancelling and reissuing new options on the same day as a control, our study only includes firms that engage in option exchange program using the 6 months and 1 day approach and compare between firms that include and exclude top executives from participation. So our control firms are those who exclude top executives from participating from the stock option exchange program. Third, our sample period uses the full period from 2000 to 2005 during which the 6 months and 1 day methodology was implemented by firms engaging in resetting option incentives for underwater options. Prior papers are restricted from 2000 to 2002 (Coles et al., 2006; Carter and Lynch, 2007; Lee, 2007; Zheng, 2003).

Following implementation of SFAS 123R in 2005 by the FASB, the option exchange program using the 6 months and 1 day methodology has generally not been used.

Using the total 328 option exchange programs implemented from 2000 to 2005, we find that the cumulative abnormal stock return prior to 'executive' option reissues is significantly lower than that of 'non-executive' option reissues, suggesting that managers take some opportunistic actions prior to option reissues in an attempt to curb stock price increase or delay actions to increase stock price. Consistent with prior studies, our result shows that the average cumulative stock return prior to executive option reissue dates shows no significant changes in stock price. However, there is a significant increase in the stock price during the 60 days prior to the reissue date for the option exchange firms who exclude top executives from participating. No significant stock price change during the 120 days window of cancellation and reissue of the new options for the option exchange program firms that include participation of top executives could imply that firms are holding back the stock price relative to the firms with no top executive participation or there is no new information for these firms. Consistent, with prior evidence, we do not find the stock price declining during the period cancellation and reissue of the new options. In addition, the difference in cumulative abnormal stock returns between the two groups is much more pronounced in the last 60 days close to option reissue dates. As a further test, we compare the post-reissue cumulative abnormal stock returns of the two groups and the pre-reissue cumulative abnormal stock returns. We find that, for firms that allow top executives to participate in the option exchange program, post-reissue cumulative abnormal stock returns is about 9.5% compared to the pre-reissue cumulative abnormal stock returns of 2.4%. For firms who do not allow top executives to participate in the option exchange program post-reissue cumulative abnormal stock returns is about 2.9% compared to the pre-reissue cumulative abnormal stock returns of 9.8%. This result is suggestive of the top executives in firms that allow them to participate in the option exchange program to curb stock price until after the reissue date potentially providing gains at a future exercise date.

The remainder of this paper is organized as follows. Section II provides a brief explanation of the institutional background of option exchange programs. Section III reviews prior literature and describes the motivation of the study. Section IV explains the sample selection of option reissue firms implementing option exchange programs. Section V reports the results of our stock return analyses around option reissue dates focusing on the comparison between executive option reissues and non-executive option reissues. Section VI concludes the paper.

II. Institutional Background and Prior Literature

Stock option repricing is the practice of canceling underwater options (options whose exercise price is greater than the current stock price) and reissuing options with a lower exercise price (Saly, 1994).¹¹ Firms often reprice employee stock options in order to potentially (1) restore performance-based incentives (Hall and Murphy, 2002; Brenner et al., 2000; Chance et al., 2000; Chidambaran and Prabhala, 2003), (2) retain valuable or talented key employees (Carpenter, 2000), and (3) realign managerial incentives to firm risk (Lambert et al, 1991; Gilson and Vetsupens, 1993; Coles et al., 2005).

During the period from 2000 to 2005, firms implemented a new form of option repricing, which is often called the stock option exchange program. In this program, firms reissued options 6 months and 1 day after cancellation. The implementation of this option exchange program is primarily attributed to the accounting treatments of option repricing. Until the period of SFAS No. 123 regime, option repricing had been simply considered a kind of new 'fixed' option grants with new exercise prices, so firms executing option repricing had not been required to recognize compensation expense related to option repricing. However, repricing also can be considered a modification of 'variable' options in the sense that repricing is essentially characterized by a change in exercise price of existing options. As a reflection of this perspective, the FASB announced in December 1998 that it would clarify soon that firms repricing stock options should record compensation expense in accordance with the "variable method" of accounting for stock options. In March 2000, FIN 44 was issued as an approval of the FASB 1998 announcement. This final rule mandated firms to use variable accounting method in accounting for the stock option repricing. Thus, under the variable accounting method prescribed by this new rule, any option repriced must be marked to the market every accounting period for the repricing date through the date of exercise (or expiration, if left unexercised).

However, FIN 44 also provided the exception that if firms reissue the options at least 6 months and 1 day after cancellation, option repricing would simply be considered a kind of new fixed option grants and firms would be exempt from recording that expense in the subsequent periods. Due to this accounting benefit, firms with underwater options wanting to reset management incentives could choose to either cancel and reprice stock options on the same day and account for it using variable method of accounting or choose to cancel and reissue stock options six months and 1 day later and consider this

as an issuance of a new option grant. We call the second method as stock option exchange program.

Almost all firms implementing option exchange programs reissued options at the first business day that was six months and one day after the cancellation of the options (Coles et al., 2006; Carter and Lynch, 2007). The exception also allowed the firms to announce the cancellation and reissue date to all participants prior to the cancellation. In this case, the cancellation date and reissue was public information to participants. Thus, the option reissue dates under the option exchange program could be predicted with a high certainty by managers and outside investors. In other words, option reissues under the option exchange programs could be classified as 'scheduled' or 'fixed-date' option grants in which the granting dates could not be timed by managers. This unique feature prominently distinguishes option reissues under the option exchange programs from the traditional option repricings or other general forms of option grants, in that the traditional option repricings or other general forms of option grants can be timed or backdated by managers who attempt to maximize their option values (Callaghan et al., 2004; Yermack, 1997; Chauvin and Shenoy, 2001; Lie, 2005).

Nonetheless, the option exchange program potentially gives rise to new agency issues derived from the predictability of reissue dates. That is, it provides a unique environment in which managers can attempt to engage in various opportunistic actions surrounding the scheduled or predicted option reissue dates in an attempt to lower stock price at the reissue dates. Thus, this study attempts to find evidence that managers take some opportunistic actions around option reissues in option exchange programs.

The stock returns around option reissues executed under the option exchange programs were investigated by Coles et al. (2006), Carter and Lynch (2007), and Lee (2007). Generally the studies did not find overall stock returns during 6 months and 1 day period to be negative. Based on this finding, Coles et al. (2006) interpret this finding as evidence that market participants do not respond to managers' effort to reduce stock price through accounting accruals because they can anticipate and perceive managers' opportunistic actions prior to option reissues. Carter and Lynch (2007) conclude that they do not find evidence that managers take deliberate actions to lower the stock price prior to option reissues.¹² Both of these studies use all option exchange firms using the 6 months and 1 day approach and use a control sample of firms repricing stock options in a day using the traditional method.

¹¹ In the traditional option repricing, options are cancelled and reissued at the same date.

¹² However, Carter and Lynch (2007) and Lee (2007) provide additional evidence that stock returns immediately prior to option reissues are significantly negative, supporting that managers take opportunistic actions immediately before option reissues.

We believe the incentive effect to lower stock price to ensure a lower exercise price for the new options is different depending on whether top executives are included in the exchange or they are excluded. We believe that only using option exchange program firms using the 6 months and 1 day for the treatment and control sample is better methodology to study the incentive mechanism. Therefore, in this study, we empirically test this alternative explanation by comparing stock returns between executive and non-executive stock option reissues.

According to Carter and Lynch (2007), 62% of the option exchange programs executed from 2000 to 2002 are available to at least some executives, and 54% are available to all executives. Though non-executives hold a large share of options outstanding (Core and Guay, 2001, Callaghan et al. 2010) and repricings typically reach employees beyond the executive level (Overman, 1999) they do not have the ability to direct or manage actions that could have an impact on the earnings or stock price. The underlying premise for the comparison between executive and non-executive stock option reissues is that the eligibility of top executives to participate in the option exchange program likely incurs higher agency costs than that of non-executives does. In other words, top executives who are eligible to participate in option exchange program are more likely to engage in opportunistic actions to curb stock price rises prior to option reissues, than non-executives. For example, top executives tend to have easier access to a variety of resources needed to engage in some opportunistic actions than non-executives. Also, top-executives tend to be directly involved in the decision making process for financial reporting and investment decisions, and they can utilize other indirect channels in order to at least partially influence the decision making process. Therefore, the stock return patterns around option reissue dates can be different depending on whether top executives are eligible for option exchange programs. Specifically, we hypothesize that the stock return would be significantly lower prior to the reissue date for firms allowing top executives to participate in the option exchange compared to those firms who do not.

III. Sample Design

We identify sample firms that undertook option exchange programs over the period of 2000 through 2005 from a search of SEC filings such as tender offer statements, 10-Ks, 10-Qs and proxy statements in Lexis/Nexis and Mergent database.¹³ In March 2001,

¹³ The main search string used in Lexis/Nexis is "option! w/10 six month w/10 one day and filing-date = 2000 [2001; 2002; 2003; 2004; 2005; 2006; 2007] and not form-type (proxy plm)". We adopt this search string from the study by Carter and Lynch (2007). In addition to this search string, we also use the search strings, ""six months and one

the SEC required firms implementing option exchange programs to file tender offer statements. Thus, for option exchange programs implemented after March 2001, we can use tender offer statements as a supplemental data source in addition to 10-Ks, 10-Qs, or proxy statements. However, tender offer statements do not make sure that the firm actually went through option exchange programs, because they provide only information on plans to implement option exchange programs in the future. Therefore, the SEC documents such as 10-Ks, 10-Qs, or proxy statements are required to ensure that firms actually implemented the option exchange programs.¹⁴

Table 1 summarizes the sample selection process to collect sample option exchange programs implemented from 2000 to 2005. The total number of SEC documents initially retrieved with the search strings is 3,292. From the SEC documents, we exclude the total 2,828 SEC documents that match the search strings but either pertain to duplicate events or do not pertain to option exchange programs. Also, we exclude 95 option exchange programs where we do not find SEC documents showing that options were actually reissued after cancellation. As a last step, we exclude 41 option exchange programs which are missing return information from the CRSP database. From the above sample selection process, we select the 328 option exchange programs as a final sample for my study.

Table 2 presents descriptive statistics related to the characteristics of the 328 sample option exchange programs implemented from 2000 to 2005.¹⁵ Panel A provides a distribution by year of the sample option exchange programs. Around 74% of the total option exchange programs were offered in 2001 and 2002, and the number of implemented option exchange programs declines post 2002. Pursuant to the schedules of the option exchange programs, around 71% of the option exchange programs reissued options in 2002 and 2003. Following the adoption of SFAS 123R a 'fair-value-based method' of accounting for stock options we do not find any option exchange programs offered after June 15, 2005, which is the effective date of SFAS 123R.

Panel B provides the distribution of employee eligibility for stock option exchange. Of the 328 option exchange programs in our sample, 183 (56%) allow all employees including top executives to

day" w/10 cancel!", "6 Months Plus 1 Day", "Six Month Plus One Day", and "Six Months Plus One Day".

¹⁴ According to Carter and Lynch (2007), some of the announced option exchange programs appeared not to have been completed (that is, the options were never cancelled or the firm filed for bankruptcy or was acquired, etc.).

¹⁵ Carter and Lynch (2007) report that the total 168 option exchange programs were offered from 2000 to June 30, 2002. According to Coles et al. (2006), the total number of option exchange programs implemented from 2001 to 2002 is 159.

participate in the exchange. In another 105 (32%) option exchange programs top management is explicitly excluded and only non executives are allowed to participate in the option exchange. We have 40 (12%) option exchange programs in which we are unable to determine the participation of top executives. We exclude from our analysis when comparing return information between option exchange programs including and excluding top executives.

Panel C provides the industry distribution of sample option exchange programs. Similar to Carter and Lynch (2007) and Coles et al. (2006), the “business services” industry with two-digit SIC code 73 forms the largest proportion of option exchange firms with “Electronic & other electric equipment” with two-digit SIC code 36 being next with 38% and 25%, respectively. This industry distribution is also similar as that of traditional repricers, which is reported in Carter and Lynch (2003) and Chidambaran and Prabhala (2003).

V. Stock Return Analyses

In this section, we examine stock return patterns around option reissue dates in order to investigate whether managers take actions that translate to reduce the stock price prior to option reissues. Following the event study methodology of Dodd and Warner (1983), we calculate daily market-adjusted abnormal returns for the option reissue firms by using the CRSP NYSE/AMEX/Nasdaq value-weighted index. The market model estimation period includes both a pre-event (days -480 to -241) and a post-event period (days +121 to +360), with day 0 defined as the reissue date identified in the SEC documents.¹⁶ Adopting this approach can exclude some systematic stock price movements that would be expected preceding the reissue dates, as well as following the reissue dates. For the validity of estimation period, each option exchange firm is expected to have at least 100 days of stock returns during the estimation period. From this process, we compute the daily abnormal stock returns for the 313 option reissue events out of the total 328 events.¹⁷

Figure 1 depicts the mean cumulative raw return and cumulative abnormal return for each event day from -120 through +120, with day 0 defined as the

reissue date for all 313 option exchange firms. We use -120 to +120 as our test window since firms cancel the options six months and 1 day prior to reissue which is equivalent to 120 days prior to day ‘0’. We include the 120 days following the reissue to observe the pattern of returns following the stock option reissue. In contrast with the traditional option repricing, the stock return prior to option reissue dates does not show a sharply declining pattern (see Fig. 1 in Callaghan et al., 2004). Instead, it appears a little flat at the level of zero from the cancellation date to the 60 days prior to option reissues, and starts to slightly increase from the relative day of -60. This result is consistent with the prior studies (Carter and Lynch, 2007; Coles et al., 2006)¹⁸.

However, it would be premature to interpret the flat or slightly increasing stock return pattern as evidence that managers do not take any opportunistic actions to lower stock price prior to option reissues. Instead, the eligibility criterion of option exchange programs can provide a potential explanation for this flat or slightly increasing stock return pattern. As shown in Panel B of Table 2, the 32% of option exchange programs exclude the top executives from participation in the program. If top executives are not eligible for the option exchange programs, their incentive to lower stock price prior to option reissues would be very weak. To study if there is a difference in stock returns during the cancellation and reissue period between firms who include top executives in the stock option exchange program and those who do not, we run the cumulative stock return for each group separately. In a sense, we consider the firms with stock option exchange programs eligible for only low level employees to be a more appropriate control group to investigate managers’ opportunistic incentive to affect stock price prior to the option reissue date.

For the statistical tests of difference in stock returns between ‘executive’ option reissue firms and ‘non-executive’ option reissue firms, we perform independent two-sample t-test for the mean difference and Wilcoxon rank-sum test for the median difference. For these tests, we divide the whole period of day -120 through +120 with day 0 defined as the reissue date, into four periods, two periods of 60 days each in the pre period and two periods of 60 days each in the post period.

Table 3 reports the statistical test results for the difference in cumulative raw stock returns between the executive option reissue firms and non-executive option reissue firms. The mean cumulative raw return in ‘Pre-period’ in executive option reissue firms (0.0181) is lower than that in non-executive option reissue firms (0.1213). This difference is statistically

¹⁶We do not include the period of days -240 to -121 in our estimation period, prior papers (Callaghan et al. 2004) have shown that stock price of these firms drop significantly during the 6 months prior to the option repricing or in this case option cancellation. Therefore, the inclusion of this period in the estimation period might lead to a downward bias in estimated coefficients of market model, easily producing positive abnormal returns in event period.

¹⁷ For the 15 option reissue events, the number of stock return dates in the estimation period is less than 100 days in CRSP database.

¹⁸ We also replicated Carter and Lynch (2007) using the option reissues implemented from 2000 to 2002, which are the subsample of our sample from 2000 to 2005. We find a similar stock return pattern as that in Carter and Lynch (2007).

significant at the 10% level. Next, we use the two 60 day pre-periods. We find no difference in market reaction in the 60 days following the cancellation of the stock options. However, in the 60 day period prior to the new option reissue we find the market reaction for the non-executive option stock option programs are significantly higher than for firms who include top executives in their stock option exchange programs. In fact, there appears to be no market reaction in the option exchange programs that include top executives. The difference in market reaction between exchange programs including top executives and those that do not is about 8.2% using the mean cumulative raw returns and about 15.0% using the median cumulative raw returns. This finding can be interpreted as managers who are included in the stock option exchange programs are more likely to attempt to lower stock price prior to option reissue dates than managers who are not. In the post period following the issuance of new stock options, we find that the mean stock price increases by 10.9% for firms engaging in stock option exchange including top executive compared to mean stock price increasing at 7.3% for exchange programs that do not include top executives. In this case we find no difference in stock return in the post period between exchange programs who include top executives and those who do not. The results are similar for the median test.

We repeat the tests using the cumulative abnormal returns and present the results in Table 4. The results are similar as those for cumulative raw returns in Table 3. The mean cumulative abnormal return in 'Pre-period' is lower in stock option exchange firms who allow top executive participation (2.9%) than that in stock option exchange firms who do not allow top executive participation (9.8%). But, this difference is not statistically significant for the full 120 days between cancellation and reissue. However, in the 60 day period preceding the reissue date, we find the mean and median cumulative abnormal returns is significantly lower in stock option exchange program firms who allow top executive participation compare to those who do not. This result suggests that managers are more likely to suppress the stock price increase or delay actions that increase stock price prior to executive option reissues when it is in their interest to do so through the benefit of obtaining a lower exercise price at reissue date in order to get potential gain at a future option exercise date.

We also perform additional statistical tests to investigate whether the difference in post-period and pre-period stock returns are different between firms who include top executives and those who do not in the option exchange program. Using the mean cumulative raw returns in Table 3, we find that the difference in post-period returns compared to pre-period returns for stock option exchange firms who include top executives is 9.1% compared to those who do not is at -4.8%. This result suggests that executives

in firms who include top executives in the exchange programs may potentially have incentives to curb stock price rises prior to option reissues and delay the actions boosting stock price to the period subsequent to option reissues compared to firms who do not include top executives in the exchange program. The results are similar using the cumulative abnormal returns presented in Table 4.

VI. Conclusion

This paper investigates an agency issue embedded in employee stock option exchange programs that managers can have a strong incentive to lower stock price at the option reissue date at the expense of shareholder wealth. In fact, prior studies have investigated stock returns around option reissues in order to find empirical evidence to support the agency issue through efforts to increase negative accruals to reduce earnings (Carter and Lynch, 2007; Coles et al., 2006; Lee, 2007). However, prior studies do not find a negative market reaction prior to reissue date.

We reinvestigate this issue using a much larger sample and having the option exchange firms be their own control using firms engaging in option exchange program which includes the top managers and those who do not. Our argument is based on the fact that when top executives are included in the stock option exchange program they potentially have an incentive and ability to take actions to reduce the stock price in order to get a lower exercise price at the reissue. Non-executives may have an incentive to get a lower exercise price on the reissued options but they do not have the ability to effectively engage in actions to reduce the stock price. Thus, we investigate cumulative abnormal stock returns around the total 328 option reissues executed under the full option exchange programs implemented from 2000 to 2005.

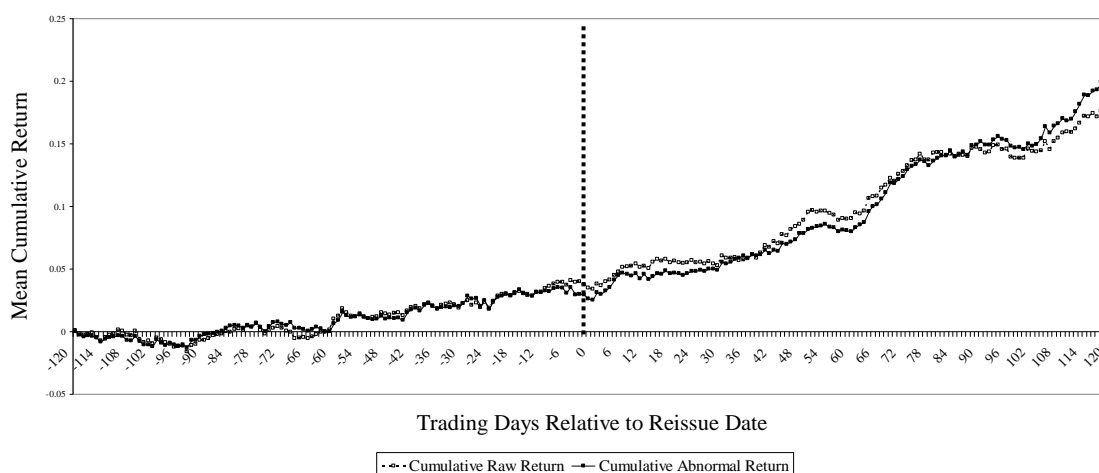
The stock return analysis focusing on the comparison between stock option exchange programs that includes top executives and those who do not show that the cumulative abnormal stock return prior to 'executive' option reissues is significantly lower than that of 'non-executive' option reissues. Based on the results, we conclude that managers take some opportunistic actions in order to curb stock price rises prior to executive option reissues. Also, the difference in cumulative abnormal stock returns between the two groups is much more pronounced in the periods close to option reissue dates, implying that managers are more likely to curb stock price increase or delay actions to increase stock price as the option reissue date approaches. Furthermore, we find that, in stock option exchange programs that include top executives, the stock return pattern start to significantly rise immediately after option reissues whereas it is almost flat prior to option reissue date. The overall results suggest the agency issue that managers curb stock price rises prior to executive option reissues or delay

some actions leading to a stock price increase subsequent to option reissue date.

References

- Brenner, M., Sundaram, R., Yermack, D., 2000. Altering the terms of executive stock options. *Journal of Financial Economics* 57, 103-128.
- Callaghan, S., Saly, P., Subramaniam, C., 2004. The timing of option repricing. *Journal of Finance* 59, 1651-1676.
- Callaghan, S., Stanford, M., Subramaniam, C. 2010. Do broad based option plans improve future firm performance for technology and non-technology firms? Working paper.
- Carpenter, J. 2000. Does option compensation increase managerial risk appetite? *Journal of Finance* 55, 2311-2331.
- Carter, M., Lynch, L., 2003. The consequences of the FASB's 1998 proposal on accounting for stock option repricing. *Journal of Accounting and Economics* 35, 51-72.
- Carter, M., Lynch, L., 2007. Agency issues in compensation contract design: Evidence from the change in accounting for stock option repricings. *Working paper*.
- Chance, D., Kumar, r., Todd, R., 2000. The 'repricing' of executive stock options. *Journal of Financial Economics* 57, 129-154.
- Chauvin, K., Shenoy, C., 2001. Stock price decreases prior to executive stock option grants. *Journal of Corporate Finance* 7, 53-76.
- Chidambaran, N.K., Prabhald, N., 2003. Executive stock option repricing, internal governance mechanisms, and management turnover. *Journal of Financial Economics* 69, 153-189.
- Cole J., Daniel, N., Naveen, L., 2005. Option repricing and incentive realignment. *Working Paper*
- Core, J., Guay, W., 2001. Stock option plans for nonexecutive employees. *Journal of Financial Economics* 61 (2), 253-287.
- Coles, J., Hertz, M., Kalpathy, S., 2006. Earnings management around employee stock option reissues. *Journal of Accounting and Economics* 41, 173-200.
- Dodd, P, Warner, J. 1983. On corporate governance: A study of proxy contests, *Journal of Financial Economics* 11, 401-438.
- Gilson, S., Vetsuypens, M., 1993. CEO compensation in financially distressed firms: an empirical analysis. *The Journal of Finance* 48, 425-458.
- Hall, B., Murphy, K., 2000. Optimal exercise prices for executive stock options. *American Economic Review* 90, 209-214.
- Lambert, R., Larcker, D, Verrecchia, R. 1991, Portfolio considerations in valuing executive compensation, *Journal of Accounting Research* 29 (1), 129-149.
- Lee, D. 2007. Do corporate managers manipulate the stock price to have a lower exercise price for their stock options?: Some evidence from the U.S. Stock Market. *Korean Finance Journal* 20 (2), 1-35.
- Lie, E., 2005. On the Timing of CEO Stock Option Awards. *Management Science* 51 (5), 802-812.
- Moore, B. L., 1999 *The Wall Street Journal*, March 10, p. C2.
- Overmans, S., 1999. Stock options: reprice or hold fast? *HR Magazine*, April 1999, 82-91.
- Reingold, J., 1999, *Business Week*, February 15, p. 38.
- Saly, P., 1994. Repricing executive stock options in a down market, *Journal of Accounting and Economics* 18, 325-356.
- Yermack, D. 1997. Good timing: CEO stock option awards and company news announcements. *Journal of Finance* 52, 449-476.
- Zheng, L., 2003. Six-month-one-day employee stock option repricing: An examination of accounting considerations and incentive implications, *Working paper*, University of Southern California.

Figure 1. Daily cumulative stock returns around the reissue dates for all sample reissue firms



This figure shows mean daily cumulative raw and abnormal stock returns around the reissue dates for all sample reissue firms. The sample includes 313 option reissue events that occur during the period 2000 to 2005. We estimate cumulative

returns for the 241-day period starting in day -120 through day +120, with day 0 defined as the reissue date identified in the SEC documents.

Table 1. Sample Selection Process

| | |
|---|------------|
| Total SEC documents retrieved from by the search strings | 3,292 |
| Less: SEC documents that do not pertain to option exchange programs | (485) |
| Less: SEC documents that duplicate option exchange programs | (2,343) |
| Base option exchange programs implemented from 2000 to 2005 | 464 |
| Less: Option exchange programs from only tender offer statements | (95) |
| Less: Option exchange programs of firms with missing in CRSP database | (41) |
| Sample option exchange programs implemented from 2000 to 2005 | 328 |

Table 2. Sample Description of Option Exchange Programs

Panel A: Year Distribution

| | Offer | | Cancellation | | Reissue | |
|-------|-----------|--------|--------------|--------|-----------|--------|
| | Frequency | % | Frequency | % | Frequency | % |
| 2000 | 6 | 1.83 | 3 | 0.91 | | |
| 2001 | 140 | 42.68 | 130 | 39.63 | 54 | 16.46 |
| 2002 | 104 | 31.71 | 108 | 32.93 | 128 | 39.02 |
| 2003 | 66 | 20.12 | 74 | 22.56 | 104 | 31.71 |
| 2004 | 11 | 3.35 | 12 | 3.66 | 34 | 10.37 |
| 2005 | 1 | 0.30 | 1 | 0.30 | 8 | 2.44 |
| Total | 328 | 100.00 | 328 | 100.00 | 328 | 100.00 |

Panel B: Eligibility

| Eligibility | Frequency | % |
|---|-----------|--------|
| Available to all employees including top executives | 183 | 55.79 |
| Unavailable to top executives | 105 | 32.01 |
| Undetermined | 40 | 12.20 |
| Total | 328 | 100.00 |

Panel C: Industry Distribution

| Two digit SIC code | Industry | Frequency | Percent |
|--------------------|---------------------------------------|-----------|---------|
| 10 | Metal mining | 1 | 0.305 |
| 20 | Food & kindred products | 1 | 0.305 |
| 22 | Textile mill products | 2 | 0.610 |
| 23 | Apparel & other textile products | 1 | 0.305 |
| 25 | Furniture & fixtures | 1 | 0.305 |
| 27 | Printing & publishing | 3 | 0.915 |
| 28 | Chemical & allied product | 13 | 3.963 |
| 30 | Rubber & misc. plastics products | 1 | 0.305 |
| 34 | Fabricated metal products | 2 | 0.610 |
| 35 | Industrial machinery & equipment | 22 | 6.707 |
| 36 | Electronic & other electric equipment | 81 | 24.695 |
| 37 | Transportation equipment | 6 | 1.829 |
| 38 | Instruments & related products | 13 | 3.963 |
| 39 | Misc. manufacturing industries | 1 | 0.305 |
| 42 | Trucking & warehousing | 1 | 0.305 |

| | | | |
|-------|---|-----|---------|
| 45 | Transportation by air | 2 | 0.610 |
| 48 | Communications | 19 | 5.793 |
| 50 | Wholesale trade - Durable goods | 3 | 0.915 |
| 53 | General merchandise stores | 1 | 0.305 |
| 55 | Automotive dealers & services stations | 1 | 0.305 |
| 56 | Apparel & accessory stores | 1 | 0.305 |
| 58 | Eating & drinking places | 1 | 0.305 |
| 59 | Miscellaneous retail | 2 | 0.610 |
| 62 | Security & commodity brokers | 1 | 0.305 |
| 63 | Insurance carriers | 1 | 0.305 |
| 67 | Holding & other investment offices | 2 | 0.610 |
| 70 | Hotels, rooming houses, camps, and others | 2 | 0.610 |
| 72 | Personal services | 1 | 0.305 |
| 73 | Business services | 125 | 38.110 |
| 78 | Motion pictures | 1 | 0.305 |
| 80 | Health services | 4 | 1.220 |
| 82 | Educational services | 1 | 0.305 |
| 83 | Social services | 1 | 0.305 |
| 87 | Engineering & management services | 8 | 2.439 |
| 89 | Services, (not elsewhere classified) | 1 | 0.305 |
| 0 | Undetermined | 1 | 0.305 |
| Total | | 328 | 100.000 |

Table 3. Comparison of Cumulative Raw Returns

The table compares cumulative raw returns surrounding option reissue dates between the two groups, 'Exec' and 'Nonexec.' The 'Exec' group includes the option exchange programs available to all employees including top executives, while the 'Nonexec' group includes ones unavailable to top executives. 'Difference' denotes 'Exec' minus 'Nonexec.' We compute cumulative raw returns for the periods surrounding the day 0 defined as the reissue date identified on the SEC documents. 'Period-2' denotes the period starting in day -120 through day -61. 'Period-1' denotes the period starting in day -120 through day -1. 'Pre-period' denotes the period starting in day -120 through day -1. 'Period+1' denotes the period starting in day 1 through day +60. 'Period+2' denotes the period starting in day +61 through day +120. 'Post-period' denotes the period starting in day +1 through day +120. Numbers in parentheses denote *t*-statistics (z-statistic) for means (medians) and difference in means (medians). Numbers in parentheses denote *p*-values of *t*-statistic (Wilcoxon Z-statistic) for means (medians). ***, **, and * denote significance at less than the 1%, 5%, and 10% levels, two-tailed tests, respectively.

| | Period-2 | Period-1 | Pre-period | Period+1 | Period+2 | Post-Period |
|-------------------|---------------------|------------------------|-----------------------|----------------------|---------------------|----------------------|
| Mean | | | | | | |
| Exec | 0.0279 (0.3511) | 0.0054 (0.8491) | 0.0181 (0.6466) | 0.03734 (0.2220) | 0.0424 (0.1632) | 0.1094** (0.0259) |
| Nonexec | 0.0138 (0.6465) | 0.0876*** (0.0029) | 0.1213*** (0.0100) | 0.05299 (0.1020) | -0.0143 (0.6465) | 0.0734 (0.1517) |
| <i>Difference</i> | 0.0141 (0.7387) | -0.0822** (0.0424) | -0.1032* (0.0980) | -0.01565 (0.7238) | 0.0567 (0.1928) | 0.0360 (0.6096) |
| Median | | | | | | |
| Exec | -0.0656 (0.3769) | -0.0575 (0.2616) | -0.0666 (0.2973) | -0.04090 (0.8238) | -0.0220 (0.8715) | -0.0189 (0.6464) |
| Nonexec | -0.0052 (0.9769) | 0.0922*** (0.0025) | 0.0842** (0.0266) | -0.00141 (0.4171) | -0.0246 (0.2846) | -0.0341 (0.7342) |
| <i>Difference</i> | -0.0604 (0.5011) | -0.1497*** (0.0030) | -0.1508** (0.0191) | -0.0395 (0.9438) | 0.0026 (0.3718) | 0.0152 (0.8192) |

Table 4. Comparison of Cumulative Abnormal Returns

The table compares cumulative abnormal returns surrounding option reissue dates between the two groups, 'Exec' and 'Nonexec.' The 'Exec' group includes the option exchange programs available to all employees including top executives, while the 'Nonexec' group includes ones unavailable to top executives. 'Difference' denotes 'Exec' minus 'Nonexec.' We compute cumulative abnormal returns for the periods surrounding the day 0 defined as the reissue date identified on the SEC documents. 'Period-2' denotes the period starting in day -120 through day -61. 'Period-1' denotes the period starting in day -120 through day -1. 'Pre-period' denotes the period starting in day -120 through day -1. 'Period+1' denotes the period starting in day 1 through day +60. 'Period+2' denotes the period starting in day +61 through day +120. 'Post-period' denotes the period starting in day +1 through day +120. Numbers in parentheses denote *p*-values of t-statistic (Wilcoxon Z-statistic) for means (medians). ***, **, and * denote significance at less than the 1%, 5%, and 10% levels, two-tailed tests, respectively.

| | Period-2 | Period-1 | Pre-period | Period+1 | Period+2 | Post-Period |
|-------------------|----------------------|------------------------|----------------------|----------------------|---------------------|----------------------|
| Mean | | | | | | |
| Exec | 0.02701 (0.3458) | -0.0243 (0.3466) | 0.0291 (0.5287) | 0.02443 (0.4183) | 0.0336 (0.2399) | 0.0948** (0.0422) |
| Nonexec | 0.01341 (0.6388) | 0.0512* (0.0649) | 0.0976** (0.0448) | 0.02728 (0.3118) | -0.0089 (0.7341) | 0.0287 (0.4746) |
| <i>Difference</i> | 0.0136 (0.7363) | -0.0755** (0.0459) | -0.0685 (0.3039) | -0.0029 (0.9438) | 0.0425 (0.2727) | 0.0661 (0.2816) |
| Median | | | | | | |
| Exec | -0.02715 (0.8368) | -0.0764** (0.0202) | -0.0788 (0.2014) | -0.03810 (0.5977) | -0.0095 (0.9744) | -0.0089 (0.5048) |
| Nonexec | -0.01518 (0.8924) | 0.0468* (0.0955) | 0.0057 (0.1744) | -0.00320 (0.7166) | -0.0068 (0.5326) | -0.0478 (0.9008) |
| <i>Difference</i> | -0.0120 (0.7981) | -0.1232*** (0.0049) | -0.0845* (0.0598) | -0.0349 (0.4554) | -0.0027 (0.6605) | 0.0389 (0.8639) |