

EXPECTATION MANAGEMENT AROUND
SCHEDULED CEO EQUITY GRANTS

by

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Expectation Management around Scheduled CEO Equity Grants

Dissertation directed by Associate Professor Steve Rock and Professor Phil Shane

Extant literature provides mixed evidence about whether managers preempt scheduled stock option grants with negative voluntary disclosures to reduce the strike price of the option (also known as “spring-loading” or “bullet-dodging”). This study contributes to the literature by illustrating that the use and type of preemptive news disclosures (otherwise known as “expectation management”) depends on the timing of the grant relative to the earnings announcement. Specifically, managers appear to disclose negative news prior to a scheduled option grant that occurs shortly *before* an earnings announcement but not when the grant occurs shortly *after* an earnings announcement. I conjecture that managers are more likely to preempt a scheduled grant occurring *after* an earnings announcement with positive news, but find limited evidence to support this hypothesis. Additionally, I demonstrate that the regulatory environment plays a role in the manager’s decision to engage in expectation management prior to a scheduled equity grant. Managers appear to be more likely to use downward expectation management following the enactment of the Sarbanes-Oxley Act and less likely after 2006 SEC regulation increasing executive compensation disclosure.

DEDICATION

This dissertation is dedicated to my extremely patient family and friends. I could not have completed this without the constant support of my husband, Kurt, and three children, Dillon, Chloe and Mathias. You are the best and I cannot thank you enough. To my friends and sisters, thanks for being there to provide comic- and childcare-relief and for giving me some slack on the timeliness of birthday and thank you cards. Thank you to my parents, Linda, Mary, and Tom, for always believing in me.

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CHAPTER I

INTRODUCTION

Existing research (Huang and Lu 2010, among others) identifies three strategies through which managers can reduce the exercise or strike price of a stock option: (1) option backdating (Lie 2005), (2) opportunistic timing of an unscheduled option grant (Yermack 1997), and (3) opportunistic timing of information releases around a scheduled option grant (also referred to as “expectation management” in Aboody and Kasznik 2000). Additionally, recent papers examine the effect that recent regulatory activity has had on managers’ ability or choice to engage in one of these three strategies. Heron and Lie (2007) document that the use of the first strategy, option backdating, is greatly reduced after the Sarbanes-Oxley Act of 2002 (SOX) while Huang and Lu (2010) provide evidence that the second strategy, the opportunistic timing of option grants, continues after SOX. However, evidence pertaining to the third strategy, the opportunistic timing of news around earnings releases, is inconclusive. While Aboody and Kasznik (2000) document the use of downward expectation management prior to a fixed date stock option grant in the period 1992 - 1996, Huang and Lu (2010) argue that there is no evidence to support that conclusion in either the pre-SOX (1996 – August 28, 2002) or post-SOX (August 29, 2002 – 2008) periods. This study directly addresses the third strategy, providing evidence spanning the passage of SOX and the SEC’s 2006 amendments to Item 402 of Regulations S-K and S-B requiring more rigorous disclosure of executive compensation.

I argue that the timing of a scheduled stock price sensitive equity grant (SPSEG) relative to an earnings announcement date (EAD) is important to consider when investigating the existence of expectation management.¹ I posit that when an equity grant occurs just before (after) an EAD, managers are more likely to engage in downward (upward) expectation management. Without considering these opposing strategies, evidence of expectation management becomes confounded. Therefore, my first research question is whether the timing of an SPSEG relative to the nearest earnings announcement date affects the type of information managers disclose prior to a predictable equity grant.

Second, following Heron and Lie (2007) and Huang and Lu (2010), I ask whether the strategies managers use to effect a low strike price have changed in response to recent regulation. Specifically, I ask whether the use of expectation management has changed as managers' ability to use backdating has diminished following SOX.

Third, recently, the use of restricted stock as both a complement to and a substitute for stock option compensation has increased while the SEC has moved to increase the transparency associated with executive compensation. My third research question addresses these issues jointly: do managers appear to be similarly incentivized by restricted stock grants in the more recent period and do the changes in disclosure requirements allow or incentivize managers to manage expectation in ways previously documented?

To answer my first two research questions, I collect a sample of 355 predictable stock option grants occurring during 1992 – 2005. Using each firm as its own control, I calculate analyst forecast revisions as a means to measure expectation management. I compare the change in consensus forecast during SPSEG-granting quarters to same-firm firm-quarters with no equity

¹ Scheduled stock price sensitive equity grants consist of both predictable stock option grants and predictable value-based restricted stock grants. I discuss the specifics in Section 2.

granting behavior and find that the use and direction of expectation management in SPSEG quarters depends on whether the grant occurs before or after the EAD. Consistent with my expectation, I find evidence that analyst forecasts exhibit a steeper walk-down pattern (relative to the same firm's other quarterly observations) when an SPSEG occurs shortly *before* an EAD. Additionally, I find evidence consistent with SOX affecting managers' choice to engage in expectation management; managers are more likely to exhibit expectation management behavior in the period after SOX. This is consistent with managers turning to expectation management after their ability to use backdating is reduced. Alternatively, results of the main tests do not provide evidence that managers guide analyst forecasts incrementally upward or downward (relative to non-equity granting quarters) when the SPSEG occurs shortly *after* an earnings announcement in either the pre- or post-SOX periods.

To answer my third research question, I run similar analyses for 201 stock option and restricted stock grants occurring between 2006 and 2010. I find no evidence consistent with either steeper or attenuated expectation management prior to an equity grant occurring before or after an EAD. This could suggest that the increased disclosure requirements related to executive compensation have affected managers' ability or desire to engage in "bullet-dodging" or "spring-loading."² Alternatively, restricted stock grants may provide incentives similar to stock options but my tests lack the power to demonstrate the effect.

This study provides three primary contributions to the literature. First, I provide more clarity on whether managers appear to engage in expectation management around scheduled equity grants. I find evidence that the use and direction of expectation management differs

² "Spring-loading" is generally defined as withholding positive news until after an option grant has been awarded while "bullet-dodging" is the practice of awarding stock options after negative news has been disclosed. In the business press "spring-loading" is often used to describe both practices.

depending on the relative timing of the equity grant to the EAD. Second, I investigate the link between recent regulatory activity and managers' choice to engage in expectation management around scheduled equity grants. I document changes in the use of expectation management in the periods before and after SOX and after recent SEC regulation concerning executive compensation. This information should be of interest to regulators as they gauge the effectiveness of the existing disclosure requirements and consider alternatives. Third, most studies in this stream of literature focus on stock option grants. However, the use of restricted stocks in CEO compensation contracts is increasing and the method used to determine the number of restricted stocks granted is becoming progressively more sensitive to the market price of the stock on the grant date. The inclusion of these restricted stock grants increases the relevance and timeliness of the results.

The remainder of the dissertation is organized as follows: chapter 2 provides background and a literature review; chapter 3 develops the hypotheses; chapter 4 provides the sample selection and research design; chapter 5 provides the empirical results; chapter 6 discusses sensitivity tests; chapter 7 summarizes the conclusions; and, chapter 8 provides a detailed list of variables.

CHAPTER II

BACKGROUND AND LITERATURE REVIEW

Equity continues to be an important component of CEO remuneration packages. Compensation consultants report as recently as 2010 that stock options are the most widely-used form of equity compensation in long-term incentive plans; however, the mix of equity awards is increasingly favoring restricted stock.^{3,4} Restricted stock awards that are granted based on a target value as opposed to a set number of shares are likely to induce similar incentives as stock options because the future value to the CEO is not only increasing in the future stock price of the firm's shares but also *decreasing* in the exercise or market price on the date of the grant.⁵ Therefore, CEOs may be incentivized to achieve the lowest stock price possible on these equity grant dates to maximize their compensation.

Despite the obvious costs to manipulating a firm's share price (e.g., potential shareholder lawsuits, loss of employment, reduced value of held equity), prior literature has uncovered evidence consistent with managers temporarily guiding their firms' share price down prior to a

³ Culpepper and Associates 2010 survey results:
<http://www.culpepper.com/eBulletin/2010/USEquityCompLTIPractices.asp>.

⁴ Equilar's 2011 Equity Trends Report indicates that S&P 1500 firms have reduced the use of stock option grants by 3.8 percent annually from 2006 to 2010 while the use of restricted stock has grown from 74.9 to 89.9 percent in the same time period.
<http://www.equilar.com/knowledge-network/research-reports/2011-research-reports/Equity-Trends-Report-2011-Update.php>

⁵ The National Association of Stock Plan Professionals Survey finds that the number of firms using a target value to award restricted stocks grew from 19% in 2004 to 63% in 2007.
http://www.thoughtcentric.com/resource/resmgr/webinars/restricted_stock_rsus_ps_for.pdf

stock option grant.⁶ Short of backdating (Lie 2005), managers may achieve a low stock price prior to an equity grant in two ways: manipulating the equity grant date around a given negative information release or manipulating information releases around a given grant date.⁷ In the first case, the board grants an unscheduled option award on a day when the stock price is depressed, likely due to management disclosure of “bad” news. In the second case, management opportunistically preempts or delays news (depending on the type the news) around a scheduled grant date.

The nature of the second method is different from that of the first because “fixed date” grants should be predictable to some degree to management, researchers, and the market, including analysts. Nevertheless, Aboody and Kasznik (2000, AK hereafter) provide evidence consistent with managers opportunistically timing voluntary disclosures around fixed date stock option grants in their sample period 1992 - 1996; they find significantly negative abnormal returns prior to and significantly positive abnormal returns after the fixed date stock option grant. Similarly, a stream of prior research (e.g., Baker et al. 2003; Balsam et al. 2003; Coles et al. 2006; McAnally et al. 2008) shows that managers engage in income-decreasing accrual management prior to a stock option grant or re-issue.

However, a recent study by Huang and Lu (2010, HL hereafter) revisits opportunistically-timed disclosures over the period 1996 – 2008 and concludes that there is no evidence of this strategy in this more recent sample period. Since the AK and HL studies only overlap in one year (1996), the two studies may not be contradictory if the results in AK are reflective of

⁶ Opportunistic behavior is not necessarily indicative of a failure in compensation contracting. As Yermack (1997) suggests, it is possible that boards anticipate this form of manipulation and adjust the remainder of the compensation contract accordingly.

⁷ Backdating entails choosing a grant date with a historically low stock price but does not involve a direct manipulation of the stock price.

managerial actions taking place in the earlier part of their sample. However, it is also possible that research design choices in HL cause the potential discrepancy. HL define non-backdated, scheduled option grants as those that occur within one day of the one year anniversary of a prior grant and also those that do not occur on the date with the lowest stock price of the month. To the extent that managers may schedule their information disclosures to allow for a stock to achieve the lowest price on the date of the grant, their definition of scheduled grants likely reduces the power of their hypothesis tests because they remove the observations that would likely provide the evidence they hypothesize.

Additionally, HL gauge expectation management by comparing stock returns from the 30 days prior to a grant with the returns from the 30 days after a grant. As mentioned above, the nature of information disclosures to manage expectations should differ depending on the timing of the grant date relative to the EAD. I explain this difference in more detail in Section 3, but for now argue that combining the two effects likely biases against finding expectation management.

I examine analyst forecast patterns in the periods around an SPSEG assuming that the patterns provide joint evidence of both managers' intent to manipulate stock price prior to an equity grant and analysts' decision to assign value to managers' disclosures around an SPSEG. While the prior literature generally examines stock returns around an SPSEG, returns may capture information that analysts may choose not to incorporate into their forecasts for reputational reasons (i.e., managers' disclosures of bad news prior to a stock option grant). On the other hand, analysts may incorporate information into their forecast revisions that may not be fully priced by the market if investors are aware of managerial incentives around an SPSEG. In both cases, the mapping between forecast revisions and returns may be incomplete. I therefore

focus my research design on analyst forecasts as a more direct measure of managerial disclosures.⁸

⁸ Another option would be to examine manager disclosures; however, to the extent that we cannot capture every managerial disclosure, this alternative data source could also provide noisy evidence.

CHAPTER III

HYPOTHESIS DEVELOPMENT

Scheduled or “fixed date” CEO equity grants are those that occur at approximately the same time every year. The predetermined grant date allows managers to time their disclosures such that the option strike price or market price is minimized. However, as discussed below, the method used to minimize the stock price at the grant date may be different depending on whether the grant date occurs shortly before or after an earnings announcement.

AK discover that 20.6% of fixed date stock option grants in their sample occur in the two weeks subsequent to the EAD and 16.7% occur in the two weeks prior to the EAD. They postulate that the relative timing of the predictable stock option grant and EAD is important; however, they only investigate the implications of managerial actions to reduce the share price when the predictable stock option grant precedes the EAD. They discount the possibility of expectation management when the EAD precedes the stock option grant (p.75):

“Because managers likely have more private information shortly before earnings announcements than shortly thereafter, we conjecture that CEOs who receive their options immediately before earnings announcements have greater opportunities to adopt a voluntary disclosure strategy that maximizes the value of their awards.”

Additionally, AK investigate stock returns but not analyst forecasts in light of this relative timing. This dissertation attempts to fill these gaps in the literature.

3.1 *SPSEG precedes Earnings Announcement*

When the SPSEG date occurs in the period prior to the earnings announcement date, managers may voluntarily disclose bad news prior to the grant date in order to decrease the stock price. AK find evidence consistent with this prediction: in their sample, the cumulative abnormal returns are significantly negative in the period prior to the grant date when the grant date precedes the EAD. This is similar to the “walk-down” pattern described in Richardson, Teoh, and Wysocki (2004) in which managers disclose negative information during the forecast period in order to reduce the analyst consensus forecast later in the period. However, in the context of an SPSEG preceding an EAD, managers are likely incentivized to *both* beat the consensus forecast at the EAD and to achieve a lower stock price before the SPSEG.

Change in walk-down pattern

The “walk-down” is generally examined in the context of analyst *ex post* optimism and pessimism over the forecast horizon. The general pattern includes optimistic forecasts in the long horizon, switching to pessimistic forecasts as the EAD approaches, allowing managers to achieve small positive earnings surprises (See Figure 1, Panel A).⁹ Richardson, Teoh and Wysocki (2004) report a median forecast error of one cent at the EAD which is consistent with analysts’ incentives to engage in the walk-down being tempered by other motivations, such as the desire to produce accurate forecasts.¹⁰ To simplify the hypotheses, I assume these incentives are unchanged in my setting.

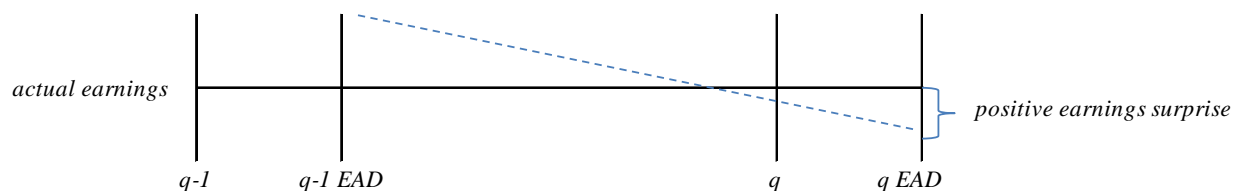
I provide the following example to illustrate how the walk-down pattern may differ around an SPSEG. Suppose Firm A has no equity granting activity in quarter q . The initial

⁹ Richardson, Teoh and Wysocki (2004) find that the switch between optimistic and pessimistic quarterly forecasts happens between four and six weeks prior to the earnings announcement date in the sample period 1992 – 2001.

¹⁰ In other words, if an analyst’s only motivation is to provide beatable forecasts, larger positive earnings surprises would likely be more common.

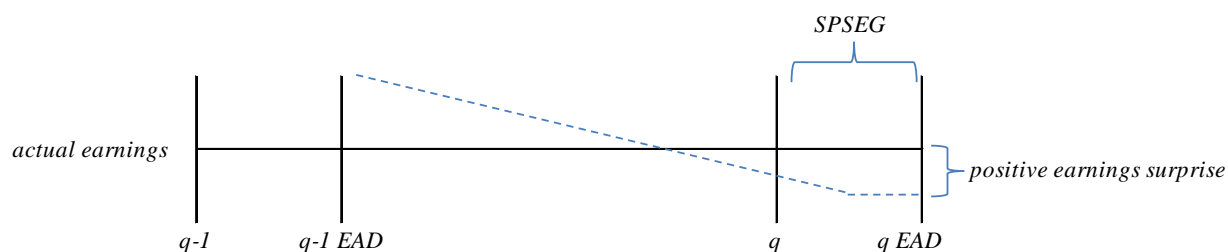
Figure 1
Forecast Revision Patterns

Panel A: General Walk-down pattern



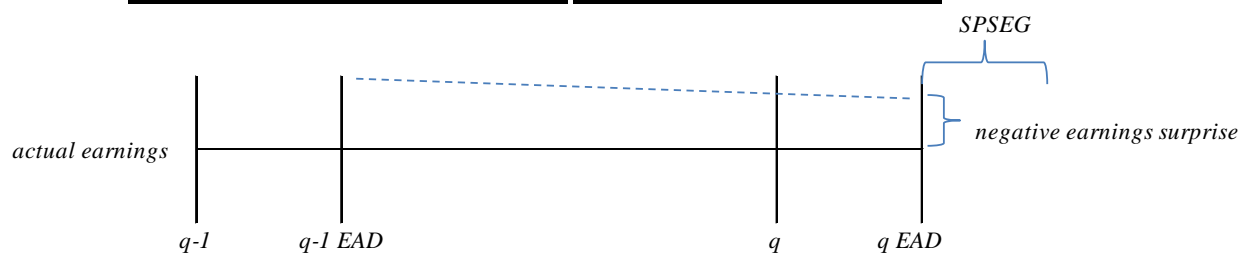
Optimistic initial forecasts and pessimistic revisions allow managers to achieve a positive earnings surprise at the earnings announcement date (EAD).

Panel B: SPSEG occurs shortly before Earnings Announcement Date



Optimistic initial forecasts and pessimistic revisions occur prior to the SPSEG. The slope of the revision line should be significantly more negative.

Panel C: SPSEG occurs shortly after Earnings Announcement Date



Optimistic forecasts and less pessimistic revisions occur prior to the EAD allowing for a negative earnings surprise at the EAD.

<p>Dashed line represents the forecast revision pattern. Solid line reflects the <i>ex post</i> realization of earnings.</p>
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consensus forecast for Firm A for quarter q is \$0.13. The consensus forecast drops to \$0.12 in the middle of the forecasting period and to \$0.10 at the end of the forecasting period just prior to the quarterly earnings announcement. Actual earnings are revealed to be \$0.11. In this example, the initial forecast is optimistic but the final consensus allows the manager to beat the consensus. Overall, the revision is $(\$0.10 - 0.13) = -\0.03 .

In another quarter Firm A has an SPSEG *prior* to the EAD (Figure 1, Panel B). Analyst incentives are held constant such that there is no change in the final forecast error. The only change in incentives in this scenario is that management prefers all of the downward forecast revisions ($-\$0.03$) to occur *prior to the SPSEG*, instead of *prior to the EAD*. The length of time in which analysts have to revise their forecasts is shortened (by design, in this setting the SPSEG occurs shortly before the EAD). Therefore, in order for analysts and managers to balance the same incentives, it must be the case that the slope of the walk-down is steeper prior to the SPSEG^{11,12} I posit the first hypothesis in alternate form:

Hypothesis 1: When an SPSEG occurs shortly *before* an earnings announcement, the analyst forecast revision pattern is more negatively-sloping prior to the SPSEG than it is in other same-firm firm-quarters in which an equity grant does not occur, *ceteris paribus*.

3.2 *Earnings Announcement precedes SPSEG*

When the SPSEG occurs shortly after the EAD (Figure 1, Panel C) a manager's preferred expectation path likely runs counter to the walk-down pattern discussed above. In order to obtain the lowest stock price just prior to the equity grant, management should prefer to have a

¹¹ It may also be the case that analysts are willing to issue even more negative forecast revisions prior to the SPSEG and revise those forecasts *upward* between the SPSEG and EAD; however, prior research shows analyst forecast revisions are serially correlated (i.e., Abarbanell and Lehavy, 2003).

¹² The predictability of the equity grant may have a moderating effect: analysts may choose to refrain from engaging in a steeper walk-down due to the fact that managerial intentions may be easier to infer and analysts may face reputational repercussions. I discuss this further in chapter 7.

negative earnings surprise at the EAD. McAnally et al. (2008) find that the likelihood of an earnings “miss” as a result of downward earnings management is increasing in the existence of a predictable stock option grant, but they do not study the *expectation* path that results in a negative earnings surprise. I suggest that managers may choose to use expectation management to achieve this end, especially if they are limited in their ability to use income-decreasing discretionary accruals. As a result, I posit that managers withhold negative news or disclose positive news prior to an EAD in order to achieve a negative earnings surprise at the EAD. Holding all other analyst incentives steady, I expect the walk-down path to be less downward-sloping or even upward-sloping when the EAD precedes the SPSEG (Figure 1, Panel C). The corresponding hypothesis is:

Hypothesis 2: When an SPSEG occurs shortly *after* an earnings announcement, the analyst forecast revision pattern is less negatively-sloping than it is in other same-firm firm-quarters in which an equity grant does not occur, *ceteris paribus*.

3.3 *Regulatory environment and the Jell-O Effect*

Kayla Gillan, a founding member of the Public Company Accounting Oversight Board (PCAOB) and one-time general counsel of CalPers, used a Jell-O-related analogy to describe the effect of regulation on compensation practices. Gillan stated that the regulation of executive compensation practices is “akin to pushing a ball of Jell-O uphill. [As you] push... the Jell-O in one spot, it simply squirts out in another.”¹³ Her comments reflect the observed shift in compensation practices as regulations are enacted. Substantiating this point, Kaiser (2007) notes that following the 1993 regulation (Internal Revenue Code section 162(M)) limiting the deductibility of non-performance-related compensation, firms shifted compensation toward more

¹³ Written testimony of Kayla J. Gillan, Former Founding Member of the Public Company Accounting Oversight Board, Meeting of the Advisory Committee on the Auditing Profession, June 3, 2008.

performance based measures. Similarly, following the implementation of SFAS 123R in 2004, which requires the expensing of stock options, many firms changed the structure of their equity compensation to include more restricted stock.

I ask whether this phenomenon affects managers' choice to engage in expectation management over my sample period. Heron and Lie (2007) find that following the enactment of SOX, which required the disclosure of insider transactions within two days, the ability of managers to engage in backdating was drastically reduced. It seems plausible that as managers are less able to effect a low strike price via backdating they might engage in more "spring-loading." On the other hand, recent SEC regulation may reduce managerial incentives to engage in "spring-loading." In 2006, the SEC adopted amendments to Item 402 of Regulations S-K and S-B that require additional quantitative and qualitative disclosure with respect to equity compensation.¹⁴ Among the requirements are additional disclosures describing the timing of options. For example, firms need to consider the following question when preparing their compensation disclosure:

*"Does a company have any program, plan or practice to time option grants to its executives in coordination with the release of material non-public information?"*¹⁵

Kaiser (2007) notes that the regulation does not render "spring-loading" illegal but that the resulting transparency may serve to deter it. I therefore hypothesize that changes in the regulatory environment are likely to play a role in managers' use of expectations management leading up to an SPSEG.

¹⁴ Calendar year firms' proxy statements were required to reflect these changes for the 2006 fiscal year.

¹⁵ <http://www.sec.gov/rules/final/2006/33-8732a.pdf>

I posit the third hypothesis in the null:

Hypothesis 3: There is no difference in analyst forecast revision patterns around an SPSEG in the pre-SOX, post-SOX/pre-2006 and post-2005 periods, *ceteris paribus*.

CHAPTER IV

SAMPLE SELECTION AND RESEARCH DESIGN

4.1 Sample Selection

I begin by identifying firms with an SPSEG. Since 1992 was the first year firms were required to disclose stock option grants, I restrict my sample to firms with equity grants in the years 1992 through 2010, inclusive. Due to differences in data availability in the pre-2006 and post-2005 periods as a result of the SEC's changes in disclosure requirements, I separate my sample into the two sample periods. For the pre-2006 period, I focus on firms with predictable stock option grants only. In the post-2006 period I look at firms with both predictable stock option grants and predictable restricted stock grants.

4.1.1 Pre-2006

As described in Table 1, Panel A, 21,267 CEO stock option grant awards are listed in Execucomp from 1992 - 2005.^{16,17} I follow a procedure similar to Aboody and Kasznik (2000) in order to obtain a sample of “fixed” or scheduled stock option grants. I remove options granted by utility and financial firms and those belonging to firms that have only one stock option grant

¹⁶ Similar to AK, I remove reload options from the sample.

¹⁷ Data for grants occurring 1992-2005 are from Execucomp's “Stock Option Grants – 1992 Format” database.

Table 1
Stock Option Grant Sample Selection

Panel A: CEO Stock Option Grant Sample	<u>Grants</u>	<u>Firms</u>
CEO Stock Option Grant Data From Execucomp 1992 - 2005	21,267	2,578
Less:		
Firm having less than two CEO grants in sample period	212	212
Financial and regulated utility firms	3,716	471
Firms not covered by CRSP or I/B/E/S	963	107
Remaining SPSEG	<u>16,376</u>	<u>1,788</u>
Less:		
Missing grant date	69	2
Multiple grants on the same date	1,529	0
Grants remaining to random sample	<u>14,778</u>	<u>1,786</u>
Grants eliminated due to lack of accurate date information	3,618	55
Grants remaining in sample after random sampling	<u>11,160</u>	<u>1,731</u>
	<u>Prior to random sampling</u>	<u>After random sampling</u>
Panel B: Random Sampling		
Exercise price matched CRSP price on assumed grant date	8,397	11,160
Exercise price does NOT match CRSP price on assumed grant date	7,979	3,618
Total	<u>16,376</u>	<u>14,778</u>
% of sample where assumed date is considered correct	51.3%	75.5%

(in order to identify firms with predictable option grants).¹⁸ Additionally, I remove all options for firms not covered by CRSP and I/B/E/S. 16,376 stock option grants pertaining to 1,788 firms remain.

Since my hypotheses are dependent on the timing of the grant relative to the earnings announcement dates, I take care to verify the option grant date. During this time period firms reported the expiration date of stock option grants and the exercise price of the grants. I use this information to infer the grant date. Stock options often expire on the anniversary of their grant date; therefore, if a grant is listed as expiring on a certain date in a future year, it is likely that the grant date occurred on same date in the current year. After generating the inferred grant dates, I compare the option exercise price as listed in Execucomp to the stock price in CRSP to verify that the inferred grant date is correct.

I consider the price a “match” (and therefore, the grant date correct) if the exercise price from Execucomp (“expcr”) equals the price (“prc”), the closing ask (“ask”), the closing bid (“bid”), the bid or low (“bidlo”), the ask or high (“askhi”), the open price (“open”), the average of the closing bid and closing ask prices ($(\text{“bid”} + \text{“ask”})/2$), or the average of the bid or low and ask or high ($(\text{“bidlo”} + \text{“askhi”})/2$) prices from CRSP. Additionally, if the exercise price falls within the range of the askhi and bidlo, I consider it a match.¹⁹ If the stock has split, I consider the price a “match” if the rounded split-adjusted price matches the CRSP price.

¹⁸ I remove utility and financial firms because I use a measure of earnings management in the multivariate analyses. The regulatory environment in those industries substantially changes the incentives associated with managing earnings.

¹⁹ This measure is noisy, especially for observations with low stock price volatility. This biases against finding results.

As detailed in Table 1, Panel B, of the 16,376 grants, I find 8,397, or 51.3% have exercise prices that match the CRSP price on the inferred grant date. Following the initial matching process, I use a random number generator to choose a sample of grants to compare to the proxy statements or Form 4's for validation. I include all grants (even those identified as a "match") in the randomization process. For each randomly-chosen observation I look for the proxy statements associated with all unmatched grants in the sample belonging to that firm. In many cases there is no further information in the proxy statement to indicate the specific grant date of the stock option. After making changes to the grant dates based on corporate documents, removing multiple grants occurring on the same day, and eliminating grants with no grant dates, the percentage matched increases to 75.5%.^{20,21} The remaining 3,618 unmatched grants are removed from further analysis.²²

Next, I determine whether a stock option grant is considered fixed. If the grant date occurs within 358 to 372 days of a subsequent or prior grant I consider the grant fixed or predictable. For a firm that has unscheduled grants, I remove the first unscheduled grant and all grants following. Therefore, I only include firm grants that occur during the period in which the firm only appears to be granting predictable awards.²³

²⁰ The majority of changed dates pertain to having an incorrect year in the assumed date.

²¹ Of the unmatched grants, 940 were included in the random sample. I could find no documentation to either verify the grant date or to explain the difference between the stock price in CRSP and the exercise price.

²² As discussed later, I use all remaining same-firm firm quarters in which no equity activity occurs as the control group for my tests. Because I am unable to verify the grant dates for the 3,618 grants, they will be included in the control group. This biases against finding results. One strategy would be to remove those firms from the sample entirely, but sample size becomes a limitation.

²³ AK eliminate all firm observations for firms that grant any unscheduled grants arguing that the firm is of a different type if it grants unscheduled grants. I argue that the firm type only changes once it begins granting unscheduled grants.

I then establish whether the earnings announcement and option grant occur close enough together to be included in my sample of “treatment” observations.²⁴ I consider an observation a “treatment” observation if the SPSEG occurs within the 30 days prior to or after an EAD (as reported in I/B/E/S).²⁵ After eliminating grants for any of the above criteria, I remove any firm that no longer has any option grants in the sample or that has less than two firm-quarter observations remaining in the sample. I remove all observations that are missing the necessary information to generate the control variables, firm-quarters in which the stock price is less than \$1, and firm-quarters with a loss.^{26,27} I segregate the remaining SPSEG-granting quarters into two distinct samples: firm-quarters with an SPSEG prior to an EAD (“Before” grants) and firm-quarters with an EAD prior to an SPSEG (“After” grants).²⁸

4.1.2 Post-2005

I follow a similar procedure to obtain a list of firms with predictable equity grants during the period 2006-2010. In this time period, I am able to directly collect the dates of stock or option awards from Execucomp and do not perform any additional analyses to verify the grant

²⁴ Following AK, I choose this research design to allow for clearer inferences about managerial incentives.

²⁵ I choose these cutoff dates to allow a grant to be associated with only one quarterly period. Since the time between quarterly earnings announcement days is generally close to 90 days, I choose time frames that should not overlap. I vary this time frame in the sensitivity testing in chapter 6.

²⁶ I remove loss firm-quarter observations to reduce the noise associated with analysts’ resistance to forecasting losses (McNichols and O’Brien 1997).

²⁷ Inferences are generally similar if I include the loss firm-quarters and include a dummy variable, *Loss*. Differences in significance levels of the SPSEG measure occur in columns (6), (7) and (9) on Table 8, Panel A. The SPSEG measures become significantly negative, insignificant, and significantly negative in columns (6), (7) and (9), respectively. In Table 9 Panel B, the SPSEG measure in column (1) becomes significantly negative, which is counter to expectation.

²⁸ The number of grants remaining in the sample according to Table 1 is larger than the number of grants summarized in Tables 2 and 3 and in all subsequent regression analyses. The reason is that once I split the sample into “Before” and “After” samples, I again remove any firm observations that have less than two observations per firm and that are missing data to generate the control variables. Table 1 is intended to show how many observations are lost due to a mismatch between the price on the “assumed” grant date and the CRSP price on that date. Note that this loss of observations does not occur in the post-2006 sample because the grant date is provided in Execucomp.

dates.²⁹ I follow similar procedures to determine if the grants are predictable and occurring within 30 days of an earnings announcement.³⁰

4.2 Testing hypothesis 1 (Equity Grant before EAD):

To test H1, I retain only the firm-quarter observations in which the SPSEG precedes an EAD and all other same-firm firm-quarters in which no grant activity had been identified (i.e., if a firm also has firm-quarters in which an SPSEG occurs *after* an EAD, those firm-quarters are dropped when testing H1). Using the “treatment” quarters (quarters with an SPSEG), I calculate the median number of days between the SPSEG and the EAD for each firm. I subtract the median number of days from the EAD for the firm’s control observations to obtain a quasi-SPSEG date. The purpose of this research design choice is to ensure that the forecast revision is measured over the same forecast horizon for each firm’s control and treatment quarterly observations.

Additionally, I split each quarter into monthly periods. “Month 0” begins 30 days before and ends one day before the current quarterly earnings announcement date. “Month – 3”, “Month – 2”, and “Month – 1” are the months beginning 120, 90, and 60 days prior to the current quarterly earnings announcement, respectively, and ending 30 days later. I allow for a “Month - 3” for firms in which the prior quarter’s earnings announcement is more than 90 days prior to the current quarterly earnings announcement. I group analyst forecasts for firm i and quarter q into monthly groups to calculate the consensus monthly forecast. I eliminate any forecasts that occur prior to or on the prior quarter’s earnings announcement date and those occurring on or after the current quarter’s earnings announcement date.

²⁹ Data for grants occurring 2006 – 2010 are from Execucomp’s “Plan Based Awards” database.

³⁰ I compare the “matched” or verified 2005 grant dates to the 2006 grant dates to determine if the 2006 grants are predictable.

I calculate the forecast revision by subtracting the earliest monthly analyst consensus from the latest monthly consensus for each firm-quarter. I remove firm-quarters in which the earliest and latest available forecast months are the same. I scale the forecast revision by the price listed in the CRSP monthly file for the month of the prior quarter's earnings announcement.

I run the following regression for all firm-quarter observations (both control and treatment observations) for firms that have an SPSEG prior to an EAD in the sample period. I use each firm as its own control and therefore run the model using firm fixed effects. I exclude subsamples for readability.

$$FCRev = \alpha + \beta_1 SPSEGMeasure + \beta_2 TotAssets + \beta_3 ChEPS + \beta_4 Volatility + \varepsilon \quad (1)^{31}$$

where:

$$FCRev = (FC_{revised} - FC_{initial} / Price_{q-1}) * 100$$

SPSEG Measure

$$SPSEG = \begin{cases} 1 & \text{one for firm-quarters in which a predictable stock} \\ & \text{option grant occurs within the 30 days prior to the} \\ & \text{EAD}_q \text{ in the pre-2006 period, zero otherwise.} \end{cases}$$

$$Either = \begin{cases} 1 & \text{one for firm-quarters in which a predictable stock} \\ & \text{option grant or predictable restricted stock grant occurs} \\ & \text{within the 30 days prior to the EAD}_q \text{ in the post-2005} \\ & \text{period, zero otherwise.} \end{cases}$$

$$Value = \text{Black-Scholes value of the SPSEG scaled by CEO salary for firm } i \text{ in year } t.$$

³¹ A detailed list of variables is included in chapter 8.

<i>Biggest</i>	=	one if the SPSEG has the largest <i>Value</i> for firm <i>i</i> during the sub-sample period, zero otherwise.
<i>TotAssets</i>	=	Log (total assets _q)
<i>ChEPS</i>	=	(EPS _q -EPS _{q-4})/Price _{q-1}
<i>Volatility</i>	=	Standard deviation (EPS _q) / Mean(EPS _q) over the past five quarters

I use three SPSEG measures to capture the potentially nuanced effect of an SPSEG. First, for tests related to the pre-2006 sample, *SPSEG* is defined as an indicator variable equal to one when a predictable stock option grant occurs in the 30 days prior to an EAD. This measure captures the difference in analyst forecast revision when a predictable stock option grant of any size occurs in the period before an EAD relative to a same-firm firm-quarter with no equity-granting activity. Second, *Value* captures the relationship between the relative value of the stock option grant and the forecast revision. Third, *Biggest* is an indicator variable equal to one when the SPSEG is the largest SPSEG for a given firm in the sample period. For the regressions using *Biggest* I remove all other SPSEG quarters in order to compare only the effect of the arguably most important SPSEG against non-equity granting quarters. If management provides more negative information to analysts prior to an SPSEG and analysts respond accordingly, I expect the coefficient on the SPSEG measures to be negative, reflecting a steeper walk-down.

In the post-2005 period, I define the SPSEG measures similarly, however, in place of the indicator variable *SPSEG*, I substitute the indicator variable *Either* to reflect the existence of either a predictable stock option grant or predictable restricted stock grant. *Value* reflects the Black-Scholes value of the stock option grant or restricted stock grant and *Biggest* is equal to one

when the *Value* of either the stock option grant or restricted stock grant is the largest in the sub-sample period.

Following AK, I include *TotAssets* and *Volatility* to control for analyst bias that has been documented to exist for small firms with low earnings predictability. I expect the coefficient on *TotAssets* to be negative to reflect an optimistic bias for small firms while I expect the coefficient on *Volatility* to be positive, reflecting the optimistic bias for more volatile firms. Additionally, I include *ChEPS* following both AK and Matsumoto (2002) to control for an unexpected change in earnings and expect the relationship to be positive.

4.3 Testing hypothesis 2 (*Equity Grant after EAD*):

I follow a similar procedure to test H2 with the sample firms that have a predictable equity grant occurring after an EAD. However, in this case, I allow the latest forecast revision to occur up until the day before the EAD. I expect the coefficient on the SPSEG measure to be positive, reflecting a reduction in downward forecast revisions in “After” treatment quarters relative to control quarters. I use the following regression equation to test H2:

$$FCRev = \alpha + \beta_1 SPSEGMeasure + \beta_2 TotAssets + \beta_3 ChEPS + \beta_4 Volatility + \beta_5 Bonus_L + \beta_6 OptEx_L + \beta_7 StockHeld + \beta_8 EM + \varepsilon \quad (2)$$

where the variables are as previously defined and:³²

Bonus_L = CEO bonus for firm *i* for year *t+1*/ CEO salary for firm *i* for year *t*

OptEx_L = Value of CEO options exercised for firm *i* in year *t+1*/

³² As described previously, I use three measures of SPSEG in the pre-2006 sample: *SPSEG*, *Value*, and *Biggest* where *SPSEG* is equal to one for firm-quarters with predictable stock option grants. In the post-2005 sample the *SPSEG* measures are: *Either*, *Value* and *Biggest* where *Either* is equal to one for firm-quarters with predictable stock option grants or predictable restricted stock grants.

		CEO salary for firm i for year t
$StockHeld$	=	Log(value of stock held by the CEO of firm i in year t / CEO salary in year t)
EM	=	Quartile of earnings management measure

I include additional control variables for the “After” sample to reflect managers’ likely competing incentives. As mentioned earlier, I expect managers to be more likely to miss an earnings benchmark when an equity grant occurs shortly after the announcement, as found in McAnally et al. (2008). However, this strategy is likely to be more costly to managers in the form of lost future bonuses and a reduction in value of the executive’s held equity. Following McAnally et al. (2008), I include the measures $Bonus_L$, the value of year $t+1$ bonus scaled by the salary for year t , $OptEx_L$, the value of the options exercised in year $t+1$ scaled by salary for year t , and $StockHeld$, the value of the equity held, excluding options, scaled by salary in year t to control for these competing incentives. I expect the coefficients on $Bonus_L$, $OptEx_L$ and $StockHeld$ to be negative to reflect managerial incentives to meet or beat earnings expectations in periods in which there is no SPSEG occurring shortly after the EAD.

McAnally et al. (2008) find that managers appear to use downward accruals management in the quarter prior to a large fixed date stock option grant. I include a measure to control for a manager’s choice to use earnings management in addition to or instead of expectation management. I define the measure EM as a relative measure of discretionary accruals calculated using the Jones Model (1991). I run the following model for each fiscal year and quarter by two-digit SIC code.

$$\frac{TA_q}{A_{q-1}} = \alpha \left[\frac{1}{A_{q-1}} \right] + \beta_1 \left[\frac{\Delta REV_q}{A_{q-1}} \right] + \beta_2 \left[\frac{PPE_q}{A_{q-1}} \right] + \varepsilon_q \quad (3)$$

where:

TA	=	Total Accruals
A	=	Total Assets ³³
ΔREV	=	Change in revenue
PPE	=	Property, Plant and Equipment

I apply the estimated coefficients to each firm-quarter observation to arrive at a predicted level of accruals. I subtract the predicted accruals from each firm-quarter level of accruals to arrive at an estimated amount of discretionary accruals. I break each fiscal year-quarter into quintiles based on the amount of discretionary accruals for each firm. I assign a relative measure of earnings management (EM) to each firm-quarter based on a scale in which a value of “5” represents firm-quarters exhibiting the highest positive quartile of discretionary accruals and “1” represents firm-quarters with the lowest level. I do not place an expectation on the *EM* variable because the use of earnings management in a non-equity granting quarter may reflect a variety of incentives which are not unidirectional (smoothing, generating cookie jar reserves, etc.).

4.4 Testing hypothesis 3:

I run each regression analysis separately for the three time periods defined as: (1) 1992-SOX, (2) SOX-2005, and (3) 2006-2010 and compare the coefficients of interest across periods.

³³ As in prior literature, total assets in this equation are not taken as the log. Therefore, the notation is different than the notation for total assets (*TotAssets*) in equations 1 and 2.

CHAPTER V

EMPIRICAL RESULTS

5.1 Grant Distribution – pre-2006

5.1.1 “Before” sample³⁴

As listed in Table 2, Panels A and B, 189 scheduled grants belonging to 97 firms occur within the 30 days prior to an earnings announcement. Panel A provides the distribution of grants by year and month. The distribution is skewed toward the earlier period in the sample. This is likely due to the fact that the longer a firm is in the sample, the more likely it is to have an unscheduled grant, after which all firm grants are excluded from the sample. The monthly distribution generally follows that in prior literature; as in HL, the majority of grants occur near the beginning of the calendar year, with the exception of a large number of grants in July.³⁵ The grants are spread over a variety of industries with the chemical (SIC 28) and electrical industries (SIC 36) being over-represented in the sample, consistent with Smith and Watts’ (1992) observation that high growth industries are more likely to use equity-based compensation. Approximately 79% of the firms in this sample have calendar year-ends.

³⁴ For clarification, I refer to both the firm-quarters with an equity grant occurring before (after) an EAD and the corresponding control firm-quarters as the “Before” (“After”) sample. This is not to be confused with the time period. I refer to the period before 2006 as the “Pre-2006” period and the subsequent period as the “Post-2005” period.

³⁵ I provide detail on the monthly distribution of grants to compare to previous studies and also to provide evidence to support fiscal quarter-specific robustness tests. Since the majority of the firms in the study have calendar year-ends, the calendar month is generally informative.

Table 2
SPSEG Distribution - pre-2006 Sample

Panel A: “Before” Sample Distribution of Fixed Date Stock Option Grant Dates by Calendar Year and Month

Year	Freq.	Percent	Month	Freq.	Percent
1993	6	3.17%	1	74	39.15%
1994	32	16.93%	2	14	7.41%
1995	28	14.81%	3	17	8.99%
1996	21	11.11%	4	18	9.52%
1997	13	6.88%	5	3	1.59%
1998	13	6.88%	6	7	3.70%
1999	14	7.41%	7	36	19.05%
2000	15	7.94%	8	2	1.06%
2001	8	4.23%	9	5	2.65%
2002	10	5.29%	10	6	3.17%
2003	7	3.70%	11	2	1.06%
2004	12	6.35%	12	5	2.65%
2005	10	5.29%		189	100.00%
	189	100.00%			

Panel B: “Before” Sample Distribution of firms by Two Digit SIC

Two digit SIC	Freq.	Percent	Two digit SIC	Freq.	Percent
10	1	1.03%	37	6	6.19%
12	1	1.03%	38	7	7.22%
13	4	4.12%	40	2	2.06%
15	2	2.06%	41	1	1.03%
20	1	1.03%	42	1	1.03%
23	1	1.03%	44	1	1.03%
26	5	5.15%	45	2	2.06%
27	2	2.06%	48	2	2.06%
28	11	11.34%	50	1	1.03%
29	3	3.09%	53	1	1.03%
30	3	3.09%	56	1	1.03%
32	1	1.03%	58	3	3.09%
33	3	3.09%	59	2	2.06%
34	1	1.03%	73	5	5.15%
35	7	7.22%	79	1	1.03%
36	14	14.43%	87	1	1.03%
				97	100.00%

Table 2
SPSEG Distribution - pre-2006 Sample

Panel C: “After” Sample Distribution of Fixed Date Stock Option Grant Dates by Calendar Year and Month

Year	Freq.	Percent	Month	Freq.	Percent
1993	11	6.63%	1	16	9.64%
1994	29	17.47%	2	49	29.52%
1995	21	12.65%	3	13	7.83%
1996	21	12.65%	4	19	11.45%
1997	23	13.86%	5	24	14.46%
1998	18	10.84%	6	6	3.61%
1999	14	8.43%	7	9	5.42%
2000	9	5.42%	8	7	4.22%
2001	1	0.60%	9	2	1.20%
2002	3	1.81%	10	11	6.63%
2003	6	3.61%	11	8	4.82%
2004	5	3.01%	12	2	1.20%
2005	5	3.01%		166	100.00%
	166	100.00%			

Panel D: “After” Sample Distribution of firms by Two Digit SIC

Two digit SIC	Freq.	Percent	Two digit SIC	Freq.	Percent
10	1	1.20%	36	11	13.25%
13	6	7.23%	37	3	3.61%
14	1	1.20%	38	4	4.82%
20	3	3.61%	40	2	2.41%
22	1	1.20%	45	1	1.20%
23	1	1.20%	48	4	4.82%
24	1	1.20%	50	2	2.41%
25	1	1.20%	52	2	2.41%
26	4	4.82%	53	1	1.20%
27	1	1.20%	54	2	2.41%
28	11	13.25%	56	1	1.20%
29	2	2.41%	57	1	1.20%
31	1	1.20%	59	1	1.20%
32	1	1.20%	73	3	3.61%
33	3	3.61%	87	1	1.20%
35	6	7.23%		83	100.00%

Figure 2 provides additional information about the distribution of the SPSEG in the sample. Panel A illustrates that a large portion of “Before” grants in this sample occur the day prior to an EAD, consistent with the results in AK. Additionally, more SPSEG are granted in the first fiscal quarter than in any other quarter.

5.1.2 “After” sample

Table 2, Panels C and D show that 166 grants meet the criteria to be in the “After” sample in the pre-2006 period. Similar to the “Before” sample, the majority of these grants occur in the early years in the sample and a relatively larger percentage belong to the chemical and electrical industries. A relatively large number of grants occur in February, similar to that documented in other studies. Approximately 71% of the firms in this sample have calendar year ends.

Figure 2, Panel B shows that “After” grants are distributed more evenly over the period after the EAD than are the “Before” grants. Additionally, the “After” grants are most likely to occur in the first quarter.

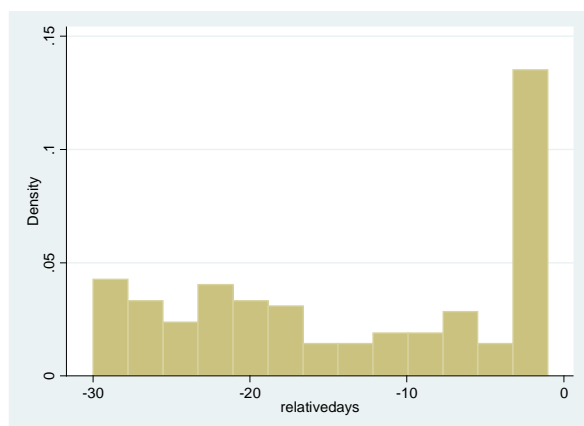
5.2 Grant Distribution – post-2005

Since the reporting requirements for executive compensation changed for fiscal years ending in 2006, I obtain the stock option grant or restricted stock grant date directly from Compustat’s Execucomp database. I present and analyze this data separately from the pre-2006 data because the reporting environment and degree of transparency with respect to equity grants differs greatly in the pre-2006 versus the post-2005 period.

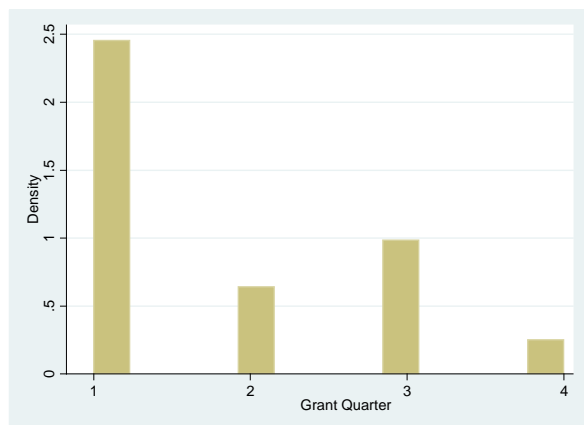
Figure 2
SPSEG Distribution - pre-2006 Sample

Panel A: “Before” Sample

Distribution of SPSEG Relative to a nearby
 Earnings Announcement Date

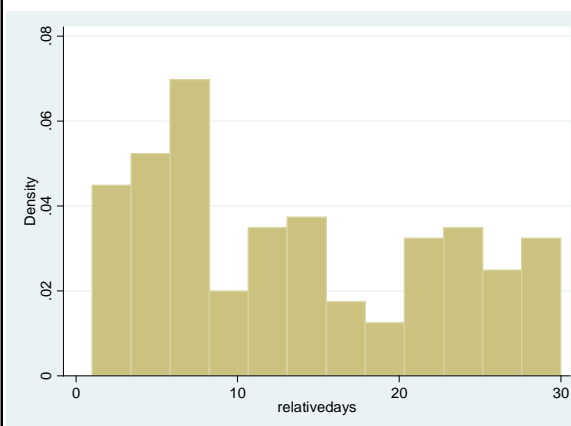


Distribution of SPSEG by Fiscal Quarter

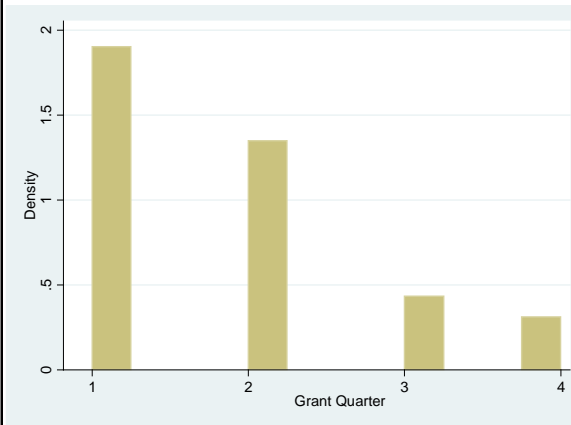


Panel B: “After” Sample

Distribution of SPSEG Relative to a nearby
 Earnings Announcement Date



Distribution of SPSEG by Fiscal Quarter



5.2.1 “Before” sample

Table 3, Panels A and B provide descriptive information pertaining to restricted stock and stock option grants occurring during the years 2006 – 2010 for the “Before” sample. The grants are fairly evenly distributed over the five years in the sample. The monthly distribution of grants is similar to that in the pre-2006 period in that many grants occur near the beginning of the calendar year. However, relatively large numbers of grants occur in January, April, July, and October, the months after calendar year-end quarter-ends. The electronics industry is over-represented in the sample as in the pre-2006 period.

Figure 3, Panel A shows that the “Before” grants occur in clusters: the majority occur the day prior to an EAD as in the earlier period, with another group being granted 20 days prior to the EAD. As in the prior period, equity grants are more likely to occur in the first quarter.

5.2.2 “After” sample

Table 3, Panel C shows a relatively large portion of the grants occur at the beginning of the calendar year with clusters also in May, August and November. Table 3, Panel D indicates that the industry representation is very similar to that in the “Before” sample; however, Business Services (SIC 73) is also highly represented. The frequency of “After” grants is heavily weighted toward the middle of the sample period. This difference might be due in part to a smaller percentage of firms in this sub-sample having calendar year-end firms. In this sample, only 49.2% of the firms are calendar year-end firms.

Figure 3, Panel B illustrates that a large percentage of SPSEG occur in the first week after the EAD with increased frequency occurring at approximately weekly intervals. Grants are most likely to occur during the first quarter.

Table 3
SPSEG Distribution - post-2005 Sample

Panel A: “Before” Sample Distribution of SPSEG by Calendar Year and Month

Year	Freq.	Percent	Month	Freq.	Percent
2006	13	17.11%	1	19	25.00%
2007	18	23.68%	2	14	18.42%
2008	17	22.37%	3	0	0.00%
2009	16	21.05%	4	13	17.11%
2010	12	15.79%	5	1	1.32%
	76	100.00%	6	2	2.63%
			7	11	14.47%
			8	2	2.63%
			9	0	0.00%
			10	13	17.11%
			11	1	1.32%
			12	0	0.00%
				76	100.00%

Panel B: “Before” Sample Distribution of firms by Two Digit SIC

Two digit SIC	Freq.	Percent
13	4	11.76%
14	1	2.94%
20	4	11.76%
28	3	8.82%
33	1	2.94%
34	1	2.94%
35	3	8.82%
36	6	17.65%
37	2	5.88%
38	1	2.94%
47	1	2.94%
48	1	2.94%
50	1	2.94%
72	1	2.94%
73	2	5.88%
78	1	2.94%
79	1	2.94%
	34	100.00%

Table 3
SPSEG Distribution - post-2005 Sample

Panel C: “After” Sample Distribution of SPSEG by Calendar Year and Month

Year	Freq.	Percent	Month	Freq.	Percent
2006	18	14.40%	1	15	12.00%
2007	39	31.20%	2	33	26.40%
2008	30	24.00%	3	8	6.40%
2009	26	20.80%	4	7	5.60%
2010	12	9.60%	5	10	8.00%
	125	100.00%	6	1	0.80%
			7	3	2.40%
			8	21	16.80%
			9	5	4.00%
			10	2	1.60%
			11	15	12.00%
			12	5	4.00%
				125	100.00%

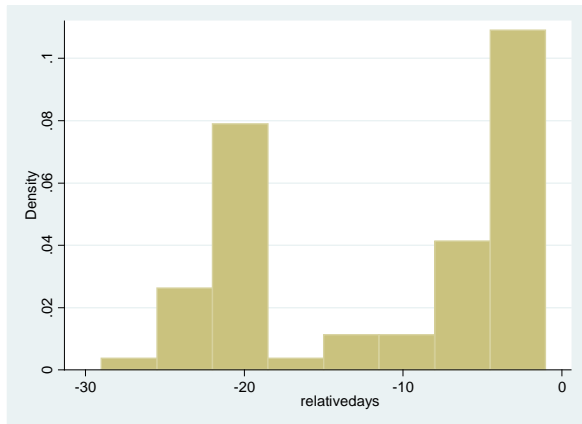
Panel D: “After” Sample Distribution of firms by Two Digit SIC

Two digit SIC	Freq.	Percent	Two digit SIC	Freq.	Percent
13	1	1.54%	39	1	1.54%
14	1	1.54%	40	1	1.54%
15	1	1.54%	48	2	3.08%
20	3	4.62%	50	1	1.54%
23	1	1.54%	53	3	4.62%
26	2	3.08%	55	2	3.08%
27	2	3.08%	56	4	6.15%
28	2	3.08%	58	2	3.08%
32	1	1.54%	59	1	1.54%
33	2	3.08%	72	1	1.54%
34	1	1.54%	73	8	12.31%
35	4	6.15%	75	1	1.54%
36	8	12.31%	80	2	3.08%
37	1	1.54%	87	1	1.54%
38	5	7.69%		65	100.00%

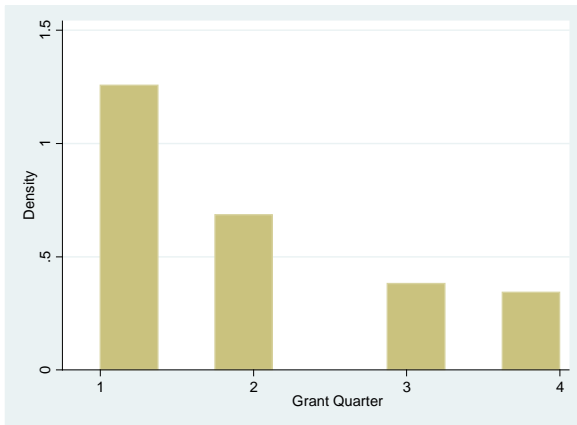
Figure 3
SPSEG Distribution post-2005 Sample

Panel A: “Before” Sample

Distribution of SPSEG Relative to a nearby Earnings Announcement Date

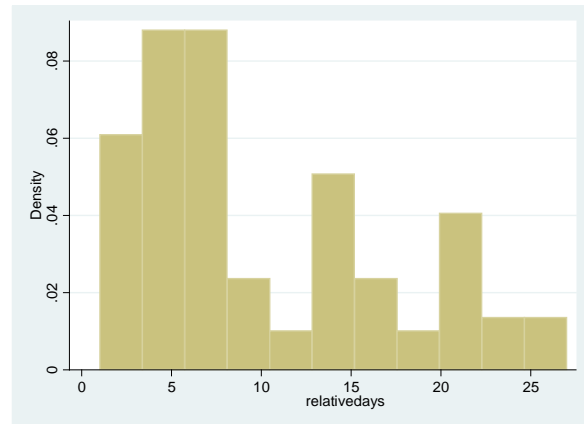


Distribution of SPSEG by Fiscal Quarter

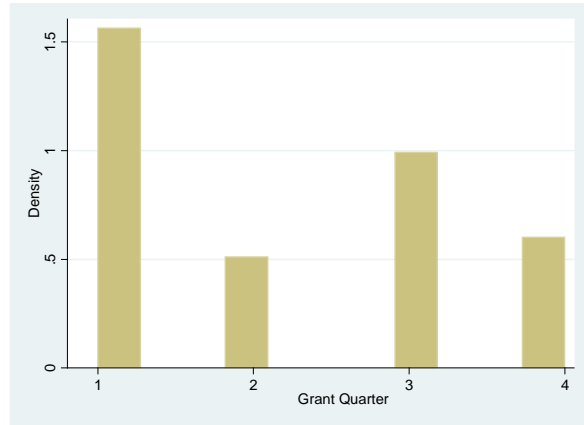


Panel B: “After” Sample

Distribution of SPSEG Relative to a nearby Earnings Announcement Date



Distribution of SPSEG by Fiscal Quarter



5.3 *Descriptive Statistics – pre-2006*

5.3.1 *“Before” sample*

I generate the necessary variables using information from I/B/E/S, Compustat, and CRSP. Table 4, Panel A provides the descriptive statistics for the “Before” quarters in which an SPSEG occurs (“Treatment” quarters). Panel B provides the descriptive statistics for these same firms for the quarters with no equity granting activity (“Control” quarters). Approximately 9.3% of the “Before” sample is made up of SPSEG firm-quarter observations ($189/(189+1,834)$). *FCRev* reflects the change in analyst consensus for each firm-quarter scaled by price at the beginning of the quarter.³⁶ Untabulated t-statistics find that there is no difference in the forecast revision between the Treatment and Control quarters in the “Before” sample. The average option *Value* is approximately 193.6% of the CEO’s annual salary. Any given award is the firm’s *Biggest* award in the sub-sample period approximately 50.8% of the time, consistent with the average firm having approximately two grants in the sample. *TotAssets* measures firm size, calculated as the log of the total assets. The average firm size is approximately \$4.7 billion (note that since panels A and B represent the same firms, I refer only to the means shown in Panel B for brevity). *ChEPS* measures the change of EPS (taken from I/B/E/S) from quarter $q-4$ to quarter q , scaled by price at the beginning of the quarter and is approximately 0.2%. *Volatility* is measured as the standard deviation of firm i ’s quarterly EPS (from I/B/E/S) scaled by the absolute value of the mean calculated over the previous five quarters. The continuous independent variables are winsorized at the 1st and 99th percentile. Untabulated t-statistics confirm that there are no

³⁶ Following prior literature, I scale forecast revision by price instead of by the initial forecast to eliminate issues with small denominators.

Table 4
Descriptive Statistics –pre-2006 Sample

Panel A: “Before” Sample/Treatment						Panel B: “Before” Sample/ Control					
Variable	Obs	Mean	Std. Dev.	Min	Max	Variable	Obs	Mean	Std. Dev.	Min	Max
<i>FCRev</i>	189	-0.067	0.352	-2.432	1.029	<i>FCRev</i>	183	-0.07	0.83	-18.35	15.42
<i>Value</i>	189	1.936	1.612	0.042	5.165						
<i>Biggest</i>	189	0.508	0.501	0	1						
<i>TotAssets</i>	189	7.740	1.361	5.045	12.199	<i>TotAssets</i>	183	8.07	1.41	5.04	12.45
<i>ChEPS</i>	189	0.003	0.011	-0.040	0.040	<i>ChEPS</i>	183	0.00	0.00	-0.04	0.04
<i>Volatility</i>	189	0.582	1.019	0.040	5.626	<i>Volatility</i>	183	0.43	0.68	0.04	5.62
Panel C: “After” Sample/Treatment						Panel D: “After” Sample/ Control					
Variable	Obs	Mean	Std. Dev.	Min	Max	Variable	Obs	Mean	Std. Dev.	Min	Max
<i>FCRev</i>	166	-0.035	0.350	-2.546	1.890	<i>FCRev</i>	156	-0.03	0.42	-5.90	5.41
<i>Value</i>	166	1.306	0.927	0.008	3.061						
<i>Biggest</i>	166	0.500	0.502	0	1						
<i>TotAssets</i>	166	7.609	1.360	4.838	10.437	<i>TotAssets</i>	156	8.05	1.34	4.83	10.81
<i>ChEPS</i>	166	0.002	0.009	-0.030	0.037	<i>ChEPS</i>	156	0.00	0.00	-0.03	0.03
<i>Volatility</i>	166	0.431	0.703	0.038	4.725	<i>Volatility</i>	156	0.41	0.65	0.03	4.72
<i>Bonus_L</i>	166	0.893	0.633	0.000	3.115	<i>Bonus_L</i>	156	0.94	0.89	0.00	6.62
<i>OptEx_L</i>	166	2.024	6.691	0.000	62.442	<i>OptEx_L</i>	156	2.85	7.63	0.00	62.44
<i>StockHeld</i>	166	47.303	182.758	0.126	1,591.287	<i>StockHeld</i>	156	74.33	246.84	0.12	1,591.28
<i>EM</i>	166	3.120	1.200	1	5	<i>EM</i>	156	3.09	1.24	1	5

Treatment reflects quarters in which an SPSEG occurs within the 30 days prior to (30 days after) the EAD for the *Before (After)* sample. *Control* reflects the same-firm firm-quarters in which no equity activity occurs. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *Value* is the Black-Scholes value of the option grant scaled by salary in year t . *Biggest* is an indicator variable = 1 if *Value* of the award is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly earnings from continuing operations divided by the absolute value of the mean quarterly earnings calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters’ earnings information. *Bonus_L* is the CEO bonus for firm i in year $t+1$ scaled by CEO salary in year t . *OptEx_L* is the value of the CEO options exercised for firm i in year $t+1$ scaled by CEO salary for year t . *StockHeld* is the value of the firm’s stocks held by the CEO in year t scaled by CEO salary in year t . *EM* measures the relative level of discretionary accruals in quarter q and fiscal year t . Higher values indicate higher levels of income increasing discretionary accruals. *Value*, *TotAssets*, *ChEPS*, *Volatility*, *Bonus_L*, *OptEx_L*, and *StockHeld* are winsorized at the 1% level.

statistically significant differences between the variables in Panels A and B, consistent with the same firms being represented in the two panels.

5.3.2 “After” sample

Table 4, Panels C and D provide descriptive information for the “After” sample. The control variables that are consistent for the “Before” and “After” samples are largely similar. The average CEO bonus in year $t+1$ is 94.6% of the prior year’s salary. The value of options exercised in year $t+1$ is almost three times the CEO’s salary in year t , while the CEO’s stock holding of the firm is more than 74 times the CEO’s annual salary.

5.4 Descriptive Statistics – post-2005

5.4.1 “Before” sample

Table 5, Panels A and B reveal that approximately 15.0% ($76/(76+430)$) of the firm-quarter observations in the “Before” sample have an SPSEG. Untabulated t-statistics reveal that the difference in *FCRev* is not significantly different between the “treatment” and “control” observations. Many of the other descriptive statistics are similar to those in the pre-2006 sample. The mean value of the equity grants are 2.7 times the CEO salary.

5.4.2 “After” sample

This percentage of treatment observations is 22.8% in the “After” sample. The value of equity grants is 3.7 times salary and the average amount of stock held by CEOs is 6,352 times salary in this sample period.^{37,38}

³⁷ This reflects eight observations in which the CEO salary is \$1. Removing those observations results in mean *StockHeld* of approximately 46 and 35 times salary in Panels C and D, respectively.

³⁸ I use the log of *StockHeld* in the subsequent regression analysis because the distribution is right-skewed.

Table 5
Descriptive Statistics – post-2005 Sample

Panel A: "Before" Sample /Treatment						Panel B: "Before" Sample/Control					
Variable	Obs	Mean	Std. Dev.	Min	Max	Variable	Obs	Mean	Std. Dev.	Min	Max
<i>FCRev</i>	76	-0.140	0.718	-5.918	0.473	<i>FCRev</i>	430	0.005	0.383	-1.865	5.504
<i>Value</i>	76	2.739	2.335	0.145	7.407						
<i>Biggest</i>	76	0.447	0.501	0	1						
<i>TotAssets</i>	76	7.904	1.398	5.042	10.452	<i>TotAssets</i>	430	8.463	1.149	5.042	11.052
<i>ChEPS</i>	76	-0.001	0.010	-0.042	0.026	<i>ChEPS</i>	430	0.001	0.010	-0.042	0.027
<i>Volatility</i>	76	0.331	0.539	0.057	3.381	<i>Volatility</i>	430	0.385	0.578	0.052	3.381
Panel C: "After" Sample/Treatment						Panel D: "After" Sample/Control					
Variable	Obs	Mean	Std. Dev.	Min	Max	Variable	Obs	Mean	Std. Dev.	Min	Max
<i>FCRev</i>	125	-0.123	1.058	-11.486	0.765	<i>FCRev</i>	424	-0.034	0.458	-1.965	5.923
<i>Value</i>	125	3.710	2.654	0.021	10.337						
<i>Biggest</i>	125	0.512	0.502	0	1						
<i>TotAssets</i>	125	8.106	1.333	4.514	10.675	<i>TotAssets</i>	424	8.154	1.221	4.514	10.758
<i>ChEPS</i>	125	0.001	0.009	-0.025	0.036	<i>ChEPS</i>	424	0.000	0.011	-0.043	0.036
<i>Bonus_L</i>	125	0.225	0.643	0.000	2.791	<i>Bonus_L</i>	424	0.136	0.469	0.000	4.444
<i>OptEx_L</i>	125	2.819	5.428	0.000	30.698	<i>OptEx_L</i>	424	2.247	4.682	0.000	30.698
<i>Volatility</i>	125	0.523	0.927	0.030	7.776	<i>Volatility</i>	424	0.554	1.053	0.030	7.776
<i>StockHeld</i>	125	3,107.623	34,223.830	1.027	382,678.200	<i>StockHeld</i>	424	6,352.462	48,815.570	1.027	382,678.200
<i>EM</i>	125	3.240	1.247	1	5	<i>EM</i>	424	2.988	1.309	1	5

Treatment reflects quarters in which an SPSEG occurs within the 30 days prior to (30 days after) the EAD for the *Before (After)* sample. *Control* reflects the same-firm firm-quarters in which no equity activity occurs. *FCRev* is defined as $(FC_{revised} - FC_{initial})$ scaled by price during the month of the *q-1* earnings announcement and multiplied by 100. $FC_{revised}$ is the consensus forecast for the last month in which there is a forecast for the firm-quarter. $FC_{initial}$ is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. $FC_{initial}$ is measured after the earnings announcement for quarter *q-1*. *Value* is the Black-Scholes value of the option grant scaled by salary in year *t*. *Biggest* is an indicator variable = 1 if *Value* of the award is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly earnings from continuing operations divided by the absolute value of the mean quarterly earnings calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. *Bonus_L* is the CEO bonus for firm *i* in year *t+1* scaled by CEO salary in year *t*. *OptEx_L* is the value of the CEO options exercised for firm *i* in year *t+1* scaled by CEO salary for year *t*. *StockHeld* is the value of the firm's stocks held by the CEO in year *t* scaled by CEO salary in year *t*. *EM* measures the relative level of discretionary accruals in quarter *q* and fiscal year *t*. Higher values indicate higher levels of income increasing discretionary accruals. *Value*, *TotAssets*, *ChEPS*, *Volatility*, *Bonus_L*, *OptEx_L*, and *StockHeld* are winsorized at the 1% level.

5.5 *Correlation Tables*

5.5.1 *Univariate Results – pre-2006*

Table 6 Panels A and B provide the correlation tables for the “Before” and “After” samples. The italics indicate that the correlation is significant at the ten percent level. *FCRev* is not strongly correlated with the SPSEG measures in either sample. As expected, the SPSEG measures are highly correlated. *ChEPS* and *Volatility* are positively associated with *FCRev* in the “Before” sample, as expected, while *Volatility* is negatively correlated with forecast revisions in the “After” sample. *TotAssets* is not significantly correlated with *FCRev* in either sample. Counter to expectation, next year’s bonus and exercised options are positively correlated with forecast revisions. This likely reflects the fact that the compensation variables are measured on a yearly basis and therefore the relationship between quarter q ’s forecast revision and year $t+1$ ’s compensation is not direct. However, incorporating these variables into the analysis is important given the value of these variables relative to CEO salary. In general, the control variables appear to be free of multicollinearity issues.

5.5.2 *Univariate Results – post-2005*

Table 7, Panels A and B provide the correlations for the post-2005 period. Unlike in the pre-2006 period, both *Either* and *Value* are negatively and significantly correlated with forecast revisions in the “Before” sample. *Value* is negatively correlated in the “After” sample, contrary to expectation. *ChEPS* is positively correlated with *FCRev*, as expected.

Table 6
Correlation Tables –pre-2006 Sample

Panel A: “Before” Sample											
	<i>FCRev</i>	<i>SPSEG</i>	<i>Value</i>	<i>Biggest</i>	<i>TotAssets</i>	<i>ChEPS</i>	<i>Volatility</i>				
<i>FCRev</i>	1.000										
<i>SPSEG</i>	0.001	1.000									
<i>Value</i>	0.004	<i>0.754</i>	1.000								
<i>Biggest</i>	-0.002	<i>0.695</i>	<i>0.605</i>	1.000							
<i>TotAssets</i>	0.035	<i>-0.069</i>	<i>-0.061</i>	<i>-0.079</i>	1.000						
<i>ChEPS</i>	<i>0.318</i>	0.022	0.028	<i>0.050</i>	<i>0.066</i>	1.000					
<i>Volatility</i>	<i>0.121</i>	<i>0.061</i>	0.021	<i>0.106</i>	-0.014	<i>0.164</i>	1.000				
Panel B: “After” Sample											
	<i>FCRev</i>	<i>SPSEG</i>	<i>Value</i>	<i>Biggest</i>	<i>TotAssets</i>	<i>ChEPS</i>	<i>Volatility</i>	<i>Bonus_L</i>	<i>OptEx_L</i>	<i>StockHeld</i>	<i>EM</i>
<i>FCRev</i>	1.000										
<i>SPSEG</i>	0.002	1.000									
<i>Value</i>	0.006	<i>0.802</i>	1.000								
<i>Biggest</i>	-0.003	<i>0.689</i>	<i>0.613</i>	1.000							
<i>TotAssets</i>	0.017	<i>-0.098</i>	<i>-0.070</i>	<i>-0.093</i>	1.000						
<i>ChEPS</i>	<i>0.335</i>	0.009	-0.007	0.004	-0.013	1.000					
<i>Volatility</i>	<i>-0.065</i>	0.006	-0.012	0.036	-0.085	0.163	1.000				
<i>Bonus_L</i>	<i>0.069</i>	-0.018	0.007	-0.016	<i>0.263</i>	0.034	-0.051	1.000			
<i>OptEx_L</i>	<i>0.065</i>	-0.032	0.031	-0.002	0.037	<i>0.045</i>	-0.061	<i>0.168</i>	1.000		
<i>StockHeld</i>	0.028	-0.033	-0.005	-0.007	<i>-0.074</i>	-0.016	<i>-0.071</i>	<i>-0.057</i>	0.009	1.000	
<i>EM</i>	-0.001	0.007	-0.010	-0.021	0.029	<i>0.049</i>	-0.005	0.008	-0.036	-0.024	1.000

FCRev is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *SPSEG* reflects firm quarters in which an SPSEG occurs in the 30 days prior (subsequent) to the EAD for the “Before” (“After”) sample. *Value* is the Black-Scholes value of the option grant scaled by salary in year t . *Biggest* is an indicator variable = 1 if *Value* of the award is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. *ChEPS* = $(EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly earnings from continuing operations divided by the absolute value of the mean quarterly earnings calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters’ earnings information. *Bonus_L* is the CEO bonus for firm i in year $t+1$ scaled by CEO salary in year t . *OptEx_L* is the value of the CEO options exercised for firm i year $t+1$ scaled by CEO salary for year t . *StockHeld* is the value of the firm’s stocks held by the CEO in year t scaled by CEO salary in year t . *EM* measures the relative level of discretionary accruals in quarter q and fiscal year t . Higher values indicate higher levels of income increasing discretionary accruals. *Value*, *TotAssets*, *ChEPS*, *Volatility*, *Bonus_L*, *OptEx_L*, and *StockHeld* are winsorized at the 1% level. Italics indicate the correlation is significant at the 10% level.

Table 7
Correlation Tables – post-2005 Sample

Panel A: “Before” Sample											
	<i>FCRev</i>	<i>Either</i>	<i>Value</i>	<i>Biggest</i>	<i>TotAssets</i>	<i>ChEPS</i>	<i>Volatility</i>				
<i>FCRev</i>	1.000										
<i>Either</i>	-0.115	1.000									
<i>Value</i>	-0.080	0.736	1.000								
<i>Biggest</i>	-0.013	0.638	0.654	1.000							
<i>TotAssets</i>	-0.002	-0.166	0.058	-0.039	1.000						
<i>ChEPS</i>	0.203	-0.077	-0.051	-0.033	0.017	1.000					
<i>Volatility</i>	0.100	-0.034	-0.018	0.003	-0.190	0.215	1.000				
Panel B: “After” Sample											
	<i>FCRev</i>	<i>Either</i>	<i>Value</i>	<i>Biggest</i>	<i>TotAssets</i>	<i>ChEPS</i>	<i>Volatility</i>	<i>Bonus_L</i>	<i>OptEx_L</i>	<i>StockHeld</i>	<i>EM</i>
<i>FCRev</i>	1.000										
<i>Either</i>	-0.058	1.000									
<i>Value</i>	-0.112	0.777	1.000								
<i>Biggest</i>	0.025	0.669	0.548	1.000							
<i>TotAssets</i>	-0.024	-0.016	0.134	-0.063	1.000						
<i>ChEPS</i>	0.208	0.064	0.033	0.070	-0.012	1.000					
<i>Volatility</i>	0.030	-0.013	-0.043	0.023	-0.132	0.177	1.000				
<i>Bonus_L</i>	-0.002	0.073	0.097	0.023	0.124	-0.059	-0.049	1.000			
<i>OptEx_L</i>	0.040	0.049	0.038	-0.016	-0.084	-0.025	-0.090	0.081	1.000		
<i>StockHeld</i>	0.010	-0.030	0.027	-0.044	-0.118	0.003	-0.031	-0.037	-0.060	1.000	
<i>EM</i>	-0.049	0.081	0.091	0.088	-0.010	0.056	0.070	-0.020	-0.051	-0.028	1.000

FCRev is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *Either* reflects firm quarters in which an SPSEG occurs in the 30 days prior (subsequent) to the EAD for the “Before” (“After”) sample. *Value* is the Black-Scholes value of the option grant scaled by CEO salary in year t . *Biggest* is an indicator variable = 1 if *Value* of the award is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly earnings from continuing operations divided by the absolute value of the mean quarterly earnings calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters’ earnings information. *Bonus_L* is the CEO bonus for firm i in year $t+1$ scaled by CEO salary in year t . *OptEx_L* is the value of the CEO options exercised for firm i in year $t+1$ scaled by CEO salary for year t . *StockHeld* is the value of the firm’s stocks held by the CEO in year t scaled by CEO salary in year t . *EM* measures the relative level of discretionary accruals in quarter q and fiscal year t . Higher values indicate higher levels of income increasing discretionary accruals. *Value*, *TotAssets*, *ChEPS*, *Volatility*, *Bonus_L*, *OptEx_L*, and *StockHeld* are winsorized at the 1% level. Italics indicate the correlation is significant at the 10% level.

5.6 *Multivariate analyses*

5.6.1 *“Before” Sample – pre-2006*

Table 8 panel A provides the regression results for the “Before” sample. Columns (1) – (3) provide the results for the three SPSEG measures over the entire period 1992 – 2005. *ChEPS* is significantly positive, consistent with expectations. Neither size nor volatility is significant. Column (3) provides evidence consistent with managers providing more negative information to analysts prior to an SPSEG when it occurs prior to an EAD when the grant is largest grant in the period. Columns (4) – (6) provide the regression results for the sample period prior to SOX, defined as August 29, 2002, consistent with prior studies. I am unable to reject the null that managers do not appear to provide more bad news in “Before” quarters. This is consistent with firms relying more on backdating during this period. Columns (7) – (9) examine the period after SOX. Volatility becomes significantly positive in these regressions although *ChEPS* is not. The coefficients on *SPSEG* and *Biggest* are significantly negative, suggesting that managers are more likely to engage in downward expectations management when backdating became a more costly alternative.

In untabulated results, I find that the average scaled *FCRev* in the period SOX – 2005 is -0.027 for firm-quarters without equity granting activity. The coefficient of -0.120 suggests that the walk-down is approximately four times steeper for the “Before” sample treatment quarters, controlling for other factors.

5.6.2 *“Before” sample post-2005*

Table 8, Panel B provides results about whether managers are similarly inspired to engage in expectations management in the period 2006 – 2010, when the level of transparency in executive compensation increased. These tests include predictable stock grants as well as

Table 8
Regression Results – “Before” Sample

<i>Panel A: pre-2006</i>										
VARIABLES	Exp sign	(1) <i>FCRev</i>	(2) <i>FCRev</i>	(3) <i>FCRev</i>	(4) <i>FCRev</i>	(5) <i>FCRev</i>	(6) <i>FCRev</i>	(7) <i>FCRev</i>	(8) <i>FCRev</i>	(9) <i>FCRev</i>
<i>SPSEG</i>	-	-0.063 (-1.300)			-0.044 (-0.700)			-0.120** (-2.347)		
<i>Value</i>	-		-0.007 (-0.972)			-0.001 (-0.061)			-0.024 (-1.489)	
<i>Biggest</i>	-			-0.121* (-1.777)			-0.115 (-1.343)			-0.117* (-1.972)
<i>TotAssets</i>	-	0.014 (0.640)	0.017 (0.740)	0.014 (0.587)	0.038 (0.980)	0.040 (1.030)	0.032 (0.908)	-0.236 (-1.307)	-0.229 (-1.260)	-0.244 (-1.320)
<i>ChEPS</i>	+	21.749*** (3.492)	21.730*** (3.487)	20.990*** (3.479)	25.010*** (2.971)	24.997*** (2.966)	24.372*** (2.981)	10.958 (1.257)	10.816 (1.239)	11.029 (1.250)
<i>Volatility</i>	+	0.134 (1.634)	0.133 (1.629)	0.132 (1.572)	0.120 (1.231)	0.119 (1.233)	0.115 (1.164)	0.240* (1.838)	0.241* (1.846)	0.238* (1.814)
<i>Constant</i>		-0.275 (-1.537)	-0.300 (-1.608)	-0.273 (-1.440)	-0.469 (-1.422)	-0.491 (-1.463)	-0.421 (-1.387)	1.826 (1.240)	1.764 (1.191)	1.898 (1.257)
Observations		2,023	2,023	1,930	1,447	1,447	1,367	576	576	563
R-squared		0.094	0.093	0.085	0.133	0.133	0.123	0.039	0.038	0.038
# of firms		97	97	97	87	87	87	68	68	68
Sample period		1992-2005	1992-2005	1992-2005	1992-SOX	1992-SOX	1992-SOX	SOX-2005	SOX-2005	SOX-2005

This table reflects the results of the regression model 1. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *SPSEG* is a dummy variable = 1 in the quarter in which an SPSEG occurs within the 30 days prior to the EAD. *Value* is the Black-Scholes value of the option grant scaled by CEO salary. *Biggest* is an indicator variable = 1 if the *Value* is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly EPS divided by the absolute value of the mean EPS calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. *SOX* is August 29, 2002. *Value*, *TotAssets*, *ChEPS*, and *Volatility* are winsorized at the 1% level. All regressions are run using firm fixed-effects. Errors are clustered by two digit SIC code. Robust t-statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 8
Regression Results – “Before” Sample

Panel B: post-2005

VARIABLES	Exp sign	(1) <i>FCRev</i>	(2) <i>FCRev</i>	(3) <i>FCRev</i>
<i>Either</i>	-	-0.121 (-1.436)		
<i>Value</i>	-		-0.018 (-1.187)	
<i>Biggest</i>	-			-0.022 (-0.532)
<i>TotAssets</i>	-	0.156* (1.968)	0.166* (1.919)	0.184* (1.983)
<i>ChEPS</i>	+	8.263 (1.150)	8.517 (1.200)	2.409 (0.360)
<i>Volatility</i>	+	0.087* (2.003)	0.089* (2.014)	0.060 (1.555)
<i>Constant</i>		-1.343* (-2.064)	-1.438* (-2.013)	-1.572* (-2.040)
Observations		506	506	464
R-squared		0.068	0.064	0.023
# of firms		34	34	34
Sample period		2006-2010	2006-2010	2006-2010

This table reflects the results of the regression model 1. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *Either* is a dummy variable = 1 in the quarter in which an SPSEG occurs within the 30 days prior to the EAD. *Value* is the Black-Scholes value of the option grant scaled by CEO salary. *Biggest* is an indicator variable = 1 if the *Value* is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly EPS divided by the absolute value of the mean EPS calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. *Value*, *TotAssets*, *ChEPS*, and *Volatility* are winsorized at the 1% level. All regressions are run using firm fixed-effects. Errors are clustered by two digit SIC code. Robust t-statistics in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

predictable stock option grants. I am unable to reject the null that managers do not engage in a change in expectation management in quarters in which an SPSEG occurs shortly before an EAD.

5.6.3 “After” sample pre-2006

Table 9, Panel A provides the regression results for the “After” sample. Similar to Table 8, Panel A, the table represents the sample taken as a whole and divided into two separate time periods (1992-SOX and SOX-2005). The control variables are largely insignificant with the exception of *ChEPS* and *Bonus_L*. The coefficient on *ChEPS* is as expected while the coefficient on the bonus in year $t+1$ is positive as in the pre-2006 period. The coefficients on the SPSEG measures are not consistent with either an increased or decreased walk-down when an SPSEG occurs after an EAD in any time period.

5.6.4 “After” sample post-2005

Table 9, Panel B provides the results for testing H2 and H3 in the post-2005 period. The coefficients on the SPSEG measures are not significantly different from zero. I am unable to reject the null that managers do not engage in a change in expectation management when an equity grant occurs just after an EAD.

5.7 Summary of Main Analyses

I conclude from the main analyses that managers appear to disclose more negative news in quarters in which an SPSEG occurs *before* an EAD than they do in other non-equity granting quarters in the period after SOX, but not after the change in compensation reporting requirements. Both results are consistent with the Jell-O Effect; managers appear to turn to expectation management when the use of backdating becomes more costly and refrain from the practice when firms are required to disclose the timing of grants relative to the disclosure of other non-public information.

Table 9
Regression Results – “After” Sample

<i>Panel A: pre-2006</i>										
VARIABLES	Exp sign	(1) <i>FCRev</i>	(2) <i>FCRev</i>	(3) <i>FCRev</i>	(4) <i>FCRev</i>	(5) <i>FCRev</i>	(6) <i>FCRev</i>	(7) <i>FCRev</i>	(8) <i>FCRev</i>	(9) <i>FCRev</i>
<i>SPSEG</i>	+	0.014 (0.545)			0.019 (0.621)			-0.035 (-0.744)		
<i>Value</i>	+		0.005 (0.432)			0.005 (0.388)			0.002 (0.126)	
<i>Biggest</i>	+			0.017 (0.464)			0.019 (0.436)			-0.053 (-1.063)
<i>TotAssets</i>	-	0.014 (0.659)	0.013 (0.648)	0.012 (0.586)	0.007 (0.238)	0.006 (0.195)	0.006 (0.206)	-0.000 (-0.002)	0.007 (0.134)	-0.003 (-0.060)
<i>ChEPS</i>	+	15.526*** (5.080)	15.530*** (5.093)	15.610*** (5.146)	15.013*** (4.141)	15.023*** (4.162)	15.102*** (4.128)	11.359 (1.419)	11.418 (1.437)	11.388 (1.421)
<i>Volatility</i>	+	-0.035 (-1.364)	-0.035 (-1.366)	-0.030 (-1.188)	-0.041 (-1.164)	-0.041 (-1.167)	-0.035 (-0.983)	0.094 (1.275)	0.093 (1.281)	0.094 (1.276)
<i>Bonus_L</i>	-	0.042** (2.584)	0.042** (2.590)	0.043** (2.640)	0.034 (1.365)	0.034 (1.369)	0.036 (1.433)	0.033* (1.880)	0.033* (1.913)	0.032* (1.831)
<i>OptEx_L</i>	-	0.001 (0.073)	0.001 (0.068)	-0.000 (-0.031)	-0.006 (-0.557)	-0.006 (-0.559)	-0.008 (-0.675)	-0.019 (-0.897)	-0.019 (-0.909)	-0.020 (-0.920)
<i>StockHeld</i>	-	0.009 (1.138)	0.009 (1.109)	0.010 (1.308)	0.003 (0.350)	0.003 (0.330)	0.005 (0.484)	0.001 (0.070)	0.002 (0.090)	0.001 (0.068)
<i>EM</i>		-0.007 (-1.444)	-0.007 (-1.430)	-0.008 (-1.554)	-0.010 (-1.213)	-0.009 (-1.206)	-0.011 (-1.300)	0.004 (0.415)	0.004 (0.436)	0.005 (0.465)
<i>Constant</i>		-0.206 (-1.111)	-0.200 (-1.107)	-0.196 (-1.063)	-0.136 (-0.568)	-0.123 (-0.528)	-0.135 (-0.546)	-0.068 (-0.166)	-0.129 (-0.299)	0.046 (-0.112)
Observations		1,729	1,729	1,646	1,317	1,317	1,240	412	412	406
R-squared		0.114	0.114	0.112	0.102	0.102	0.099	0.089	0.089	0.090
# of firms		83	83	83	80	80	80	54	54	54
Sample period		1992-2005	1992-2005	1992-2005	1992-SOX	1992-SOX	1992-SOX	SOX-2005	SOX-2005	SOX-2005

This table reflects the results of the regression model 2. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *SPSEG* is a dummy variable = 1 in the quarter in which an SPSEG occurs within the 30 days subsequent to the EAD. *Value* is the Black-Scholes value of the option grant scaled by CEO salary. *Biggest* is an indicator variable = 1 if the *Value* is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly EPS divided by the absolute value of the mean EPS calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. *Bonus_L* is the CEO bonus for firm i in year $t+1$ scaled by CEO salary in year t . *OptEx_L* is the value of the CEO options exercised for firm i in year $t+1$ scaled by CEO salary for year t . *StockHeld* is the value of the firm's stocks held by the CEO in year t scaled by CEO salary in year t . *EM* measures the relative level of discretionary accruals in quarter q and fiscal year t . Higher values indicate higher levels of income increasing discretionary accruals. *SOX* is August 29, 2002. *Value*, *TotAssets*, *ChEPS*, *Volatility*, *Bonus_L*, *OptEx_L*, and *StockHeld* are winsorized at the 1% level. All regressions are run using firm fixed-effects. Errors are clustered by two digit SIC code. Robust t-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

Table 9
Regression Results – “After” Sample

Panel B: post-2005

VARIABLES	Exp sign	(1) <i>FCRev</i>	(2) <i>FCRev</i>	(3) <i>FCREv</i>
<i>Either</i>	+	-0.122 (-1.074)		
<i>Value</i>	+		-0.039 (-0.922)	
<i>Biggest</i>	+			-0.004 (-0.146)
<i>TotAssets</i>	-	-0.088 (-0.611)	-0.095 (-0.688)	-0.225 (-1.358)
<i>ChEPS</i>	+	11.412** (2.698)	11.241** (2.623)	12.740** (2.738)
<i>Volatility</i>	+	-0.038 (-1.100)	-0.042 (-1.145)	-0.040 (-1.363)
<i>Bonus_L</i>	-	-0.038 (-0.589)	-0.041 (-0.639)	-0.035 (-0.536)
<i>OptEx_L</i>	-	0.041* (1.860)	0.037* (1.928)	0.021 (1.427)
<i>StockHeld</i>	-	0.006 (0.247)	0.005 (0.199)	-0.013 (-0.574)
<i>EM</i>		-0.029 (-0.726)	-0.025 (-0.695)	-0.001 (-0.064)
<i>Constant</i>		0.774 (0.650)	0.830 (0.720)	1.854 (1.326)
Observations		549	549	488
R-squared		0.046	0.053	0.116
# of firms		65	65	65
Sample period		2006-2010	2006-2010	2006-2010

This table reflects the results of the regression model 2. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *Either* is a dummy variable = 1 in the quarter in which an SPSEG occurs within the 30 days subsequent to the EAD. *Value* is the Black-Scholes value of the option grant scaled by CEO salary. *Biggest* is an indicator variable = 1 if the *Value* is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly EPS divided by the absolute value of the mean EPS calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. *Bonus_L* is the CEO bonus for firm i in year $t+1$ scaled by CEO salary in year t . *OptEx_L* is the value of the CEO options exercised for firm i in year $t+1$ scaled by CEO salary for year t . *StockHeld* is the value of the firm's stocks held by the CEO in year t scaled by CEO salary in year t . *EM* measures the relative level of discretionary accruals in quarter q and fiscal year t . Higher values indicate higher levels of income increasing discretionary accruals. *Value*, *TotAssets*, *ChEPS*, *Volatility*, *Bonus_L*, *OptEx_L*, and *StockHeld* are winsorized at the 1% level. All regressions are run using firm fixed-effects. Errors are clustered by two digit SIC code. Robust t-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

The use of expectation management appears to be different depending on the timing of the SPSEG relative to a nearby EAD. As opposed to the findings discussed above, I find no evidence that managers engage in a heightened or attenuated walk-down when the equity grant occurs shortly after an EAD, in any period.

CHAPTER VI

SENSITIVITY TESTS

I perform sensitivity tests to check the robustness of my conclusions.

6.1 Winsorizing

The main tests described above were performed after the continuous independent variables were winsorized in order to remove noise from outliers. The main results generally hold when I perform the analyses without winsorizing. Table 10 provides the results for the exception: the “Before” sample analysis performed in the pre-2006 period. Comparing the results to Table 8, Panel A, the coefficient of interest in Column (3) is no longer significant when looking at the time period as a whole. Additionally, when examining the period SOX-2005, the coefficient on *Value* is significant while the coefficient on *Biggest* is insignificant. Overall, these results provide more evidence consistent with that described in the summary of the main analyses.

6.2 Fiscal quarter comparisons

Equity granting behavior is concentrated in the first fiscal quarter as observed in Figures 2 and 3. Therefore, using all non-equity granting quarters as control quarters may not be directly comparable insofar as quarterly effects exist. I limit the both the treatment and control sample to fiscal first quarters, rendering the control observations more comparable. The coefficients of

Table 10
Sensitivity Tests – No Winsorization

<i>"Before" Sample, Pre-2006, Compare to Table 8, Panel A</i>										
VARIABLES	Exp Sign	(1) <i>FCRev</i>	(2) <i>FCRev</i>	(3) <i>FCRev</i>	(4) <i>FCRev</i>	(5) <i>FCRev</i>	(6) <i>FCRev</i>	(7) <i>FCRev</i>	(8) <i>FCRev</i>	(9) <i>FCRev</i>
<i>SPSEG</i>	-	-0.051 (-1.294)			-0.040 (-0.835)			-0.104** (-2.067)		
<i>Value</i>	-		-0.001 (-0.624)			-0.000 (-0.215)			-0.011* (-1.720)	
<i>Biggest</i>	-			-0.075 (-1.437)			-0.065 (-1.034)			-0.091 (-1.668)
<i>TotAssets</i>	-	0.016 (0.809)	0.019 (0.906)	0.019 (0.888)	0.010 (0.490)	0.012 (0.554)	0.010 (0.468)	-0.248 (-1.384)	-0.240 (-1.332)	-0.254 (-1.391)
<i>ChEPS</i>	+	10.652*** (4.926)	10.632*** (4.944)	10.244*** (4.308)	11.111*** (4.439)	11.093*** (4.460)	10.686*** (3.723)	6.498*** (3.229)	6.465*** (3.173)	6.488*** (3.199)
<i>Volatility</i>	+	0.013 (1.091)	0.013 (1.090)	0.013 (1.078)	0.012 (1.035)	0.012 (1.035)	0.012 (1.021)	0.106 (1.019)	0.107 (1.025)	0.105 (1.013)
<i>Constant</i>		-0.219 (-1.346)	-0.245 (-1.432)	-0.240 (-1.393)	-0.183 (-1.088)	-0.203 (-1.125)	-0.185 (-1.036)	1.995 (1.354)	1.928 (1.299)	2.048 (1.362)
Observations		2,023	2,023	1,930	1,447	1,447	1,367	576	576	563
R-squared		0.099	0.099	0.086	0.145	0.145	0.123	0.024	0.024	0.024
Number of firms		97	97	97	87	87	87	68	68	68
Sample period		1992-2005	1992-2005	1992-2005	1992-SOX	1992-SOX	1992-SOX	SOX-2005	SOX-2005	SOX-2005

This table reflects the results of the regression model 1. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *SPSEG* is a dummy variable = 1 in the quarter in which an SPSEG occurs within the 30 days prior to the EAD. *Value* is the Black-Scholes value of the option grant scaled by CEO salary. *Biggest* is an indicator variable = 1 if the *Value* is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly EPS divided by the absolute value of the mean EPS calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. SOX is August 29, 2002. All regressions are run using firm fixed-effects. Errors are clustered by two digit SIC code. Robust t-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

interest are generally insignificant, consistent with the results of the main tests shown in Table 8, Panel B and Table 9, Panels A and B. The only exception is for the “Before” sample in the pre-2006 period. I provide these results in Table 11 which is comparable with Table 8, Panel A, Columns 1 – 3.

The number of observations is greatly reduced as I require each firm to have at least one equity-granting fiscal first quarter and two fiscal first quarter observations in the sample (for comparison purposes). I only provide the regression results for the entire pre-2006 time period as the research design constraints limit the sample to less than 20 observations in the post-SOX period. The coefficient on *SPSEG* of -0.154 suggests the walk-down is more than twice as steep in equity-granting fiscal first quarters than it is in non-equity granting fiscal first quarters in the pre-2006 period.³⁹ Additionally, the coefficient on *Biggest* is significantly negative, suggesting the results in Table 8, Panel A are robust to this alternative specification.

6.3 Proximity of “After” grants to the EAD

As mentioned in McAnally et al. (2008), the amount of time between the EAD and the subsequent grant is likely to affect whether the manager engages in behavior to miss an earnings expectation. The further an *SPSEG* occurs from the EAD, the more likely the manager is to disclose information (subsequent to the EAD) relating to next quarter’s earnings to effect a change in stock price. Therefore, I restrict the “After” sample to grants that occur in a more restricted time period after the EAD, as shown in Table 12. Following the evidence in Figure 3, Panel B, I restrict my sample to incorporate the clusters in granting activity to see if evidence of a walk-up is more evident when the grant occurs closer to the EAD. I restrict the grant to occur in the six, eight, and 15 days after the EAD. Untabulated results reflect those found in the main

³⁹ In untabulated results, I find that the mean forecast revision is -0.065 in non-equity granting fiscal first quarters in this sample period.

Table 11
Sensitivity Tests – Fiscal Quarter Specific

“Before” Sample, 1992-2005, First fiscal quarters only
Compare to Table 8, Panel A, Columns (1) – (3)

VARIABLES	Exp sign	(1) <i>FCRev</i>	(2) <i>FCRev</i>	(3) <i>FCRev</i>
<i>SPSEG</i>	-	-0.154** (-2.419)		
<i>Value</i>	-		-0.036 (-1.595)	
<i>Biggest</i>	-			-0.095* (-2.038)
<i>TotAssets</i>	-	-0.048 (-1.235)	-0.042 (-0.794)	-0.010 (-0.206)
<i>ChEPS</i>	+	19.899*** (8.359)	19.642*** (4.915)	15.065*** (7.106)
<i>Volatility</i>	+	0.117*** (3.162)	0.113** (2.888)	0.104*** (11.541)
<i>Constant</i>		0.277 (0.900)	0.197 (0.460)	-0.057 (-0.149)
Observations		94	94	76
R-squared		0.406	0.377	0.313
Number of firms		16	16	16
Sample period		1992-2005	1992-2005	1992-2005

This table reflects the results of the regression model 1a. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *SPSEG* is a dummy variable = 1 in the quarter in which an *SPSEG* occurs within the 30 days prior to the EAD. *Value* is the Black-Scholes value of the option grant scaled by CEO salary. *Biggest* is an indicator variable = 1 if the *Value* is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly EPS divided by the absolute value of the mean EPS calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. *Value*, *TotAssets*, *ChEPS*, and *Volatility* are winsorized at the 1% level. All regressions are run using firm fixed-effects. Errors are clustered by two digit SIC code. Robust t-statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 12
Sensitivity Tests - Proximity of “After” Grants to EAD

“After” Sample, 2006-2010, SPSEG occurring <9 days after EAD				
Compare to Table 9, Panel B				
VARIABLES	Exp sign	(1) <i>FCRev</i>	(2) <i>FCRev</i>	(3) <i>FCRev</i>
<i>Either</i>	+	-0.045 (-1.048)		
<i>Value</i>	+		0.026*** (3.108)	
<i>Biggest</i>	+			-0.015 (-0.357)
<i>TotAssets</i>	-	-0.265** (-2.237)	-0.271** (-2.266)	-0.407** (-2.561)
<i>ChEPS</i>	+	15.253** (2.532)	15.096** (2.531)	17.759** (2.613)
<i>Volatility</i>	+	-0.044*** (-2.869)	-0.043** (-2.793)	-0.048*** (-3.374)
<i>Bonus_L</i>	-	0.080 (1.639)	0.071* (1.770)	0.111 (1.652)
<i>OptEx_L</i>	-	0.043* (1.738)	0.042* (1.827)	0.044** (2.082)
<i>StockHeld</i>	-	-0.019 (-0.834)	-0.022 (-0.930)	-0.042 (-1.364)
<i>EM</i>		-0.001 (-0.041)	-0.003 (-0.093)	-0.009 (-0.261)
<i>Constant</i>		2.194** (2.141)	2.234** (2.188)	3.418** (2.468)
Observations		305	305	273
R-squared		0.138	0.139	0.170
Number of firms		38	38	38
Sample period		2006-2010	2006-2010	2006-2010

This table reflects the results of the regression model 2. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *Either* is a dummy variable = 1 in the quarter in which an SPSEG occurs within the 30 days subsequent to the EAD. *Value* is the Black-Scholes value of the option grant scaled by CEO salary. *Biggest* is an indicator variable = 1 if the *Value* is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly EPS divided by the absolute value of the mean EPS calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. *Bonus_L* is the CEO bonus for firm i in year $t+1$ scaled by CEO salary in year t . *OptEx_L* is the value of the CEO options exercised for firm i in year $t+1$ scaled by CEO salary for year t . *StockHeld* is the value of the firm's stocks held by the CEO in year t scaled by CEO salary in year t . *EM* measures the relative level of discretionary accruals in quarter q and fiscal year t . Higher values indicate higher levels of income increasing discretionary accruals. *Value*, *TotAssets*, *ChEPS*, *Volatility*, *Bonus_L*, *OptEx_L*, and *StockHeld* are winsorized at the 1% level. All regressions are run using firm fixed-effects. Errors are clustered by two digit SIC code. Robust t-statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

analyses. The only difference in results is in the post-2005 period when I constrain the definition of an SPSEG to occur in the eight days after an EAD. In this case, the coefficient on *Value* is positive and significant indicating that managers appear to disclose positive news (or less negative news) prior to an EAD when an SPSEG occurs within the eight days following an EAD.

6.4 *Large forecast errors*

Following AK, I remove forecast errors which are more than ten times the firm's stock price. The main results generally hold. Table 13 provides the results for the "After" sample in the post-2005 period. In this sub-sample, the coefficient on *Value* is significantly positive which is consistent with a mitigated walk-down when an SPSEG follows an EAD.

Table 13
Sensitivity Tests – Remove Large Forecast Errors

<i>“After” Sample, 2006 – 2010, Remove large forecast errors, Compare to Table 9, Panel B</i>				
VARIABLES	Exp sign	(1) <i>FCRev</i>	(2) <i>FCRev</i>	(3) <i>FCRev</i>
<i>Either</i>	+	-0.004 (-0.180)		
<i>Value</i>	+		0.007** (2.106)	
<i>Biggest</i>	+			-0.003 (-0.137)
<i>TotAssets</i>	-	-0.143 (-1.006)	-0.143 (-1.003)	-0.186 (-1.110)
<i>ChEPS</i>	+	12.611*** (3.028)	12.584*** (3.018)	13.521*** (2.957)
<i>Volatility</i>	+	-0.037 (-1.159)	-0.035 (-1.123)	-0.040 (-1.369)
<i>Bonus_L</i>	-	-0.070 (-1.328)	-0.073 (-1.383)	-0.075 (-1.321)
<i>OptEx_L</i>	-	0.029** (2.071)	0.029** (2.107)	0.029* (1.998)
<i>StockHeld</i>	-	0.000 (0.012)	-0.000 (-0.003)	-0.007 (-0.324)
<i>EM</i>		-0.000 (-0.010)	-0.001 (-0.077)	-0.003 (-0.129)
<i>Constant</i>		1.152 (0.955)	1.149 (0.951)	1.533 (1.082)
Observations		549	549	488
R-squared		0.115	0.116	0.127
Number of firms		65	65	65
Sample period		2006-2010	2006-2010	2006-2010

This table reflects the results of the regression model 2. *FCRev* is defined as $(FC_{\text{revised}} - FC_{\text{initial}})$ scaled by price during the month of the $q-1$ earnings announcement and multiplied by 100. FC_{revised} is the consensus forecast for the last month in which there is a forecast for the firm-quarter. FC_{initial} is the consensus forecast for the earliest month in which there is a forecast for the firm-quarter. FC_{initial} is measured after the earnings announcement for quarter $q-1$. *Either* is a dummy variable = 1 in the quarter in which an SPSEG occurs within the 30 days subsequent to the EAD. *Value* is the Black-Scholes value of the option grant scaled by CEO salary. *Biggest* is an indicator variable = 1 if the *Value* is the largest for the firm during the sample period. *TotAssets* is the log of total assets reported at the end of the quarter. $ChEPS = (EPS_q - EPS_{q-4})/Price_{q-1}$. *Volatility* is the standard deviation of quarterly EPS divided by the absolute value of the mean EPS calculated over the previous five quarters for firm-quarters in which there are at least four prior quarters' earnings information. *Bonus_L* is the CEO bonus for firm i in year $t+1$ scaled by CEO salary in year t . *OptEx_L* is the value of the CEO options exercised for firm i in year $t+1$ scaled by CEO salary for year t . *StockHeld* is the value of the firm's stocks held by the CEO in year t scaled by CEO salary in year t . *EM* measures the relative level of discretionary accruals in quarter q and fiscal year t . Higher values indicate higher levels of income increasing discretionary accruals. *Value*, *TotAssets*, *ChEPS*, *Volatility*, *Bonus_L*, *OptEx_L*, and *StockHeld* are winsorized at the 1% level. All regressions are run using firm fixed-effects. Errors are clustered by two digit SIC code. Robust t-statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

CHAPTER VII

CONCLUSIONS

The results indicate that the quarterly forecast pattern for firms with predictable equity grants differs depending on the timing of the equity grant relative to the earnings announcement date, suggesting that managers disclose information consistent with their incentives. I provide some evidence that quarters with an SPSEG *prior* to the earnings announcement date exhibit a significantly “steeper” walk-down than do same-firm firm quarters with no equity granting activity. These results only hold in the period after SOX, suggesting that managers engage in expectation management when they are less able to engage in stock option backdating, consistent with evidence in Heron and Lie (2007) that backdating is significantly reduced after SOX. However, this behavior appears to subside after additional disclosure pertaining to executive equity grants is required. This may indicate that managers benefitted from a certain level of opaqueness in the stock option granting environment even when the timing of the grants was predictable. These results are inconsistent with Huang and Lu (2010) who report no evidence of spring-loading in the period after SOX.

The results pertaining to predictable equity grants occurring shortly *after* an earnings announcement date are less clear. In the main analyses, I find no evidence that managers engage in an attenuated walk-down in any period. Sensitivity tests for the post-SOX period are mixed. When constraining the sample to fiscal first quarters in which most SPSEG activity occurs, there is no evidence of incremental expectation management over and above that used in the control

quarters. However, when the definition of treatment quarters is limited to those in which the grant occurs close to the EAD, some evidence suggests that managers disclose positive news prior to an EAD which is followed by an equity grant. Similar results are found when extremely large forecast errors are removed from the sample. That this behavior follows the 2006 SEC amendments to the equity compensation disclosure requirements is interesting. Given the results pertaining to the “Before” sample, it seems CEOs find negative expectation management too costly (likely in terms of investor sentiment) after the changes in required disclosure. However, CEOs appear to be less concerned about this cost when the SPSEG occurs after the EAD. The difference might speak to managers’ conflicting incentives related to missing an earnings benchmark. If investors can discern that the CEO times good news disclosures for the purposes of missing an earnings benchmark and is risking the value of his/her current firm-equity holdings, investors might be less suspicious of CEO myopic behavior. In this case the CEO is motivated to improve the stock price of the firm to make up for the temporary loss in personal wealth generated by the missed earnings benchmark.

As mentioned earlier, the analyses are a joint test of managerial and analyst behavior. It may be the case that certain types of analysts respond to managerial disclosures more fully even when managerial incentives are known. Further studies may investigate whether analyst behavior in this setting is differentiable in terms of analyst incentives and characteristics. Additionally, changes to the regulatory environment pertaining to analysts (Regulation FD and NASD 2711, for example) may also shed light on the findings in this study.

Overall, the results provide additional clarification about managers’ activities to improve the value of their equity compensation. Most importantly, the study points out that future research on this topic needs to consider the relative timing of the grant date and the earnings

announcement. Additionally, it provides further evidence of the relationship between regulation and the nuances of managerial decision making.

CHAPTER VIII

DETAILED LIST OF VARIABLES

<u>Dependent Variables</u>		
<i>FCRev</i>	=	$(FC_{revised} - FC_{initial}) / Price_{q-1} * (100)$ FCRev>0 indicates analyst forecasts became more optimistic. FCRev<0 indicates analyst forecasts became more pessimistic.
<i>where</i>		
<i>FC_{initial}</i>	=	Mean forecast for firm <i>i</i> for quarter <i>q</i> for the first month a forecast is available following the day after <i>q-1</i> earnings announcement date.
<i>FC_{revised}</i>	=	Mean forecast for firm <i>i</i> for quarter <i>q</i> for the last month a forecast is available prior to the earnings announcement date for quarter <i>q</i> for firms with equity grants after the earnings announcement date. For firms with equity grants prior to the earnings announcement date, the mean forecast error is calculated in the last month prior to the equity grant date for “treatment” observations or prior to the “quasi” grant date for “control” observations. ⁴⁰
<i>Price_{q-1}</i>	=	Firm <i>i</i> monthly share price from CRSP from the month of <i>q-1</i> EAD.
<u>Independent variables of Interest</u>		
<i>SPSEG</i>	=	1 for firm quarters in which a predictable stock option grant occurs within the 30 days prior to or the 30 days after the EAD _q in the period 1992 – 2005.
<i>Either</i>	=	1 for firm quarters in which a predictable stock option grant or predictable restricted stock grant occurs within the 30 days prior to or the 30 days after the EAD _q in the period 2006-2010.
<i>Value</i>	=	Black-Scholes value of the option or restricted stock grant scaled by CEO salary for firm <i>i</i> in year <i>t</i> .
<i>Biggest</i>	=	1 if the SPSEG has the largest <i>Value</i> for firm <i>i</i> during the sub-sample period.
<u>Control variables</u>		
<i>TotAssets</i>	=	Log total assets (Compustat <i>atq</i>)
<i>ChEPS</i>	=	$(EPS_q - EPS_{q-4}) / Price_{q-1}$.
<i>Volatility</i>	=	Standard deviation $(EPS_q) / \text{Mean}(EPS_q)$ over the past five quarters
<i>Bonus_L</i>	=	CEO <i>Bonus</i> for firm <i>i</i> for year <i>t+1</i> / CEO <i>Salary</i> for firm <i>i</i> for year <i>t</i> .

⁴⁰ I calculate the median time difference between the SPSEG and the EAD for each firm. I use that time span to create an artificial break for the “control” observations.

<i>OptEx_L</i>	=	Value of CEO Options Exercised (<i>opt_exer_val</i>) for firm <i>i</i> in year <i>t+1</i> /CEO Salary for firm <i>i</i> for year <i>t</i> .
<i>StockHeld</i>	=	Log (Value of the CEO stock held in year <i>t</i> / CEO salary in year <i>t</i>) (<i>shrown_excl_opt</i> *split-adjusted price* <i>stock_unvest</i>)/Salary
<i>EM</i>	=	Quartile of earnings management, 1 = lowest quartile of discretionary accruals, 5 = highest quartile of discretionary accruals
<i>TA</i>	=	Total accruals (difference between quarterly income and cash flow) (<i>ibcy-oancfy</i>)
<i>A</i>	=	Total assets (<i>atq</i>)
<i>ΔREV</i>	=	Change in revenue (<i>sale_q-sale_{q-4}</i>)
<i>PPE</i>	=	Property, plant and equipment (<i>ppegtq</i>)

REFERENCES

- Abarbanell, J. and R. Lehavy. 2003. Biased Forecasts or Biased Earnings? The Role of Reported Earnings in Explaining Apparent Bias and Over/underreaction in Analysts' Earnings Forecasts. *Journal of Accounting and Economics* 36 (1-3), 105-146.
- Aboody, D. and R. Kasznik. 2000. CEO Stock Option Awards and the Timing of Corporate Voluntary Disclosures. *Journal of Accounting and Economics* 29 (1), 73-100.
- Baker, T., D. Collins, and A. Reitenga. 2003. Stock Option Compensation and Earnings Management Incentives. *Journal of Accounting, Auditing, and Finance* 18 (4), 557-582.
- Balsam, S., H. Chen, and S. Sankaraguruswamy. 2003. Earnings Management Prior to Stock Option Grants. Working paper. Temple University and Georgetown University.
- Barton, J. and P. J. Simko. 2002. The Balance Sheet as an Earnings Management Constraint. *The Accounting Review* 77 (Supplement), 1-27.
- Bartov, E., D. Givoly, and C. Hayn. 2002. The Rewards to Meeting or Beating Earnings Expectations. *Journal of Accounting and Economics* 33 (2), 173-204.
- Burgstahler, D. C. and M. Eames. 2006. Management of Earnings and Analysts' Forecasts to Achieve Zero and Small Positive Earnings Surprises. *Journal of Business Finance & Accounting* 33 (5-6), 633-652.
- Chen, S. and D. Matsumoto. 2006. Favorable versus Unfavorable Recommendations: The Impact on Analyst Access to Management-Provided Information. *Journal of Accounting Research* 44 (4), 657-689.
- Coles, J., M. Hertz, and S. Kalpathy. 2006. Earnings Management around Employee Stock Option Reissues. *Journal of Accounting and Economics* 41 (1-2), 173-200.
- Cowen, A., B. Groyberg, and P. Healy. 2006. Which Types of Analyst Firms are More Optimistic? *Journal of Accounting and Economics* 41 (1-2), 119-146.
- Das, S., C. B. Levine, and K. Sivaramakrishnan. 1998. Earnings Predictability and Bias in Analysts' Earnings Forecasts. *The Accounting Review* 73 (2), 277-294.

- Dorata, N.T. and S.T. Petra. 2012. Restricted Stock Awards and Taxes: What Employees and Employers Should Know. *Journal of Accountancy* 213 (2), 44-48.
- Dyck, A., A. Morse, and L. Zingales. 2010. Who Blows the Whistle on Corporate Fraud? *The Journal of Finance* 65 (6), 2213-2253.
- Groysberg, B., P. Healy, and D. Maber. 2011. What Drives Sell-Side Analyst Compensation at High-Status Banks? *Journal of Accounting Research* 49 (4), 969-1000.
- Heron, R. and E. Lie. 2007. Does Backdating Explain the Stock Price Pattern around Executive Stock Option Grants? *Journal of Financial Economics* 83 (2), 271-295.
- Hong, H. and J. D. Kubik. 2003. Analyzing the Analysts: Career Concerns and Biased Earnings Forecasts. *Journal of Finance* 58 (1), 313-351.
- Hovakimian, A. and E. Saenyasiri. 2010. Conflicts of Interest and Analyst Behavior: Evidence from Recent Changes in Regulation. *Financial Analysts Journal* 66 (4), 1-12.
- Huang, W. and H. Lu. 2010. Timing of CEO Stock Options and Corporate Disclosures: New Evidence from post-SOX and post-Backdating-Scandal Era. Working Paper.
- Hugon, A. and V. Muslu. 2010. Market Demand for Conservative Analysts. *Journal of Accounting and Economics* 50 (1), 42-57.
- Jensen, M. C. and W. H. Meckling. 1976. Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics* 3 (4), 305-360.
- Jones, J. 1991. Earnings Management during Import Relief Investigations. *Journal of Accounting Research* 29 (2), 193-228.
- Kaiser, D. 2007. Loaded for Bear, or Bull: Assessing the Practice of Granting Spring-Loaded Options in Executive Compensation. *Entrepreneurial Business Law Journal* 2 (1), 553-571.
- Ke, B., and Y. Yu. 2006. The Effect of Issuing Biased Earnings Forecasts on Analysts' Access to Management and Survival. *Journal of Accounting Research* 44 (5), 965-999.
- Lie, E. 2005. On the Timing of CEO Stock Option Awards. *Management Science* 51 (5), 802-812.
- Lim, T. 2001. Rationality and Analysts' Forecast Bias. *Journal of Finance* 56 (1), 369-385.
- Lin, H. W. and M. McNichols. 1998. Underwriting Relationships, Analysts' Earnings Forecasts and Investment Recommendations. *Journal of Accounting and Economics* 25 (1), 101-127.

- Ljungqvist, A., F. C. Marston, L. T. Starks, K. D. Wei, and H. Yan. 2007. Conflicts of Interest in Sell-Side Research and the Moderating Role of Institutional Investors. *Journal of Financial Economics* 85 (2), 420-456.
- Matsumoto, D. 2002. Management's Incentives to Avoid Negative Earnings Surprises. *The Accounting Review* 77 (3), 483-514.
- Mayew, W. 2008. Evidence of Management Discrimination among Analysts during Earnings Conference Calls. *Journal of Accounting Research* 46 (3), 627-659.
- McAnally, M. L., A. Srivastava, and C. Weaver. 2008. Executive Stock Options, Missed Earnings Targets and Earnings Management. *The Accounting Review* 83 (1), 185-216.
- McNichols, M. and P. O'Brien. 1997. Self-Selection and Analyst Coverage. *Journal of Accounting Research* 35 (Studies on Experts and the Application of Expertise in Accounting, Auditing, and Tax), 167-199.
- Richardson, S., S. Teoh, and P. Wysocki. 2004. The Walk-down to Beatable Analyst Forecasts: the Role of Equity Issuance and Insider Trading Incentives. *Contemporary Accounting Research* 21 (4), 885-924.
- Shaw, H. 2006. Is Spring-loading Wrong? *CFO.com* (September 6)
<http://www.cfo.com/article.cfm/7880157>.
- Smith, C. W. and R. L. Watts. 1992. The Investment Opportunity Set and Corporate Financing, Dividend and Compensation Policies. *Journal of Financial Economics* 32, 263-292.
- Stickel, S. 1992. Reputation and Performance among Security Analysts. *Journal of Finance* 47 (5), 1811-1836.
- Teoh, S., Y. Yang, and Y. Zhang. 2009. The Earnings Numbers Game: Rewards to Walk Down and Penalties to Walk Up of Analysts' Forecasts of Earnings. Working Paper.
- Ulupinar, B. 2010. Two Essays on Analyst Bias and Management Entrenchment. Working Paper.
- Yermack, D. 1997. Good timing: CEO Stock Option Awards and Company News Announcements. *The Journal of Finance* 52 (2), 449-476.