Stock Option Grants to Target CEOs during Private Merger Negotiations

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ABSTRACT

Many publicly traded targets grant their CEOs unscheduled options during private merger negotiations. Such grants, which become exercisable when acquisitions consummate, are more frequently awarded to CEOs holding smaller golden parachutes and/or expecting larger compensation losses once firms merge. Consistent with alleged option backdating, we find grant dates systematically benefit CEOs, and benefits increase with grants' reporting lag. After Sarbanes-Oxley passes, apparent backdating episodes decline, but exercise premiums CEOs realize on unscheduled options exceed takeover premiums their shareholders receive by 25%. Results suggest Sarbanes-Oxley has curtailed the targets' ability to backdate options, but not their ability to favorably time these awards.

JEL classification: G30; G34; J33; K22
Keywords: Unscheduled stock options, Acquisitions, Option timing

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Many publicly traded targets grant their CEOs unscheduled options during private merger negotiations. Such grants, which become exercisable when acquisitions consummate, are more frequently awarded to CEOs holding smaller golden parachutes and/or expecting larger compensation losses once firms merge. Consistent with alleged option backdating, we find grant dates systematically benefit CEOs, and benefits increase with grants' reporting lag. After Sarbanes-Oxley passes, apparent backdating episodes decline, but exercise premiums CEOs realize on unscheduled options exceed takeover premiums their shareholders receive by 25%. Results suggest Sarbanes-Oxley has curtailed the targets' ability to backdate options, but not their ability to favorably time these awards.

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Stock options awarded to top managers of target firms before a merger often become immediately exercisable when the sale of the company is consummated. This occurs because "change in control" clauses, which are common to many CEO compensation contracts, allow option vesting periods and other restrictions to disappear as the firm ceases to exist as a stand alone entity. This phenomenon provides top managers with the opportunity to increase their stock option holdings prior to an acquisition announcement and receive huge payoffs when their firms are eventually sold.[1] In many circumstances, it is possible that these payoffs are obtained as a result of the CEOs' nonpublic knowledge of the merger.

To study this situation, we focus on target firms that grant their CEOs option awards during the private merger negotiation period. We consider several hypotheses to rationalize such option granting activity. The null hypothesis is the scheduled award hypothesis. It states that the options are periodic scheduled awards that just happen to be given during the merger negotiation period. An alternative explanation is that the options are unscheduled grants. This possibility elicits at least three different hypotheses. The first is that the unscheduled awards are given to provide CEOs with compensation relief when their firms are sold. This could be particularly important for CEOs expected to remain in office for several years if their firms were not acquired. Another possibility is the incentive alignment hypothesis which predicts that unscheduled option grants to target CEOs during the negotiation period will induce CEOs to work hard in getting a high offer for their firms and therefore more value for their shareholders. An alternative explanation is the rent extraction hypothesis which posits that the unscheduled option grants are designed to enrich target CEOs and not necessarily their firms' shareholders. These hypotheses are not necessarily mutually exclusive. Therefore, our tests are designed to help differentiate as much as possible among them.

We analyze a sample of 196 acquisitions during 1999-2006, in which we identify 110 target firms that grant their CEOs at least one unscheduled option award during the private merger negotiation period. We classify a grant as a scheduled option award if it is dated within 14 days of the one-year anniversary of a prior grant and unscheduled otherwise. Our empirical tests reveal that target firms that issue unscheduled

[1] Given their direct involvement in acquisition negotiations, CEOs are likely aware of the impending sale of their firm months before market participants learn about the transaction. Since most of the target's stock price increase occurs during the four weeks before and up to the deal announcement date (Schwert, 1996), and because the firm's sale causes option awards to immediately become exercisable (Cai and Vijh, 2007), CEOs can stockpile options prior to the sale and benefit from acquisition premiums paid for targets. In recent years, these premiums are in the order of 30%.

options to their CEOs while merger negotiations are underway get takeover premiums that are not statistically different from the premiums other targets receive. This finding, which is robust to alternative ways of classifying unscheduled option grants, casts doubt on the idea that unscheduled awards are aimed at inducing CEOs to negotiate more vigorously.

To better understand the motivations for the unscheduled option granting activity, we also study its determinants. The results of this test indicate that when target CEOs expect large pay losses after the merger goes through, their firms are more likely to extend them unscheduled options during merger negotiations. Our estimates imply that when the expected lost income to CEOs increases by 10 million dollars, the probability of granting unscheduled options during the negotiation period increases by about 9 percentage points. In addition, we also find an inverse association between the size of golden parachutes given to target CEOs and the probability that these executives get unscheduled options during merger negotiations. We view these results as evidence in support of our compensation relief hypothesis. Our results indicate that unscheduled option awards granted to target CEOs have a material effect on the wealth of these executives that appears to exceed any benefit target shareholders realize from the acquisition. Once the acquisition is completed and due to their unscheduled option awards, we estimate that these target CEOs' realized premium is over 25 percentage points larger than the premium shareholders in the same target firms obtain.

We also study the dates when the unscheduled awards are issued along with the targets' stock prices during the sixty days immediately surrounding the grant date. These analyses show that the unscheduled grants are issued to coincide with the lowest stock price accruing to targets during the private merger negotiation period. In addition, we identify significant price run-ups after the grants' inception, which appear to be more pronounced as reporting days from the grants' origination date increase. We find that the targets' stock price pattern centered on the unscheduled option grants' origination date delineates a V-shape characteristic of alleged option backdating similar to that in Heron and Lie (2007). At first glance, this evidence lends strong support to both the compensation relief and the rent extraction hypotheses. However, it is possible that for some firms for which an acquisition represents the best corporate strategy, unscheduled options induce their CEOs to sell them. Under this view, absent any ethical or legal violations

related to the issuance of unscheduled options while in possession of the non-public information of an eventual merger, our findings could be consistent with the incentive alignment hypothesis.

The evidence herein has several important public policy implications on the efforts by regulators to curb corporate malfeasance. On the surface, our results indicate that in the context of a firm's impending sale, unscheduled option granting might be a covert form of insider trading. Put differently, if target executives increase their option holdings due to their knowledge and participation in the acquisition, then these individuals might be in violation of Sections 10(b) and/or 16(b) of the 1934 Securities Act which penalize insider trading. Specifically, these laws state that "any person purchasing or selling a security while in possession of material, nonpublic information shall be liable in an action in any court of competent jurisdiction…" However, well-timed option awards are not actionable as insider trading violations, not even if they are backdated. This occurs because an option award is simply not a "purchase" of securities for the purpose of the 1934 Act (Anabtawi, 2004).

It would also appear that our results document violations of Rule 14d-10 of the 1934 Securities Act which calls for equal treatment of all shareholders during a merger.[2] Nevertheless, on October 18, 2006, the Securities and Exchange Commission (SEC) unanimously voted to adopt amendments to the "best price rule" contained in Rule 14d-10(a) (2) under the 1934 Act. The amendments clarify that the best price rule applies only to the consideration offered and paid for securities put forth in a tender offer and does not apply to payments to employees, directors or other shareholders of the target company pursuant to employment compensation, severance or other employee benefit arrangements entered into in connection with an acquisition of the target company. The rule change provides a safe harbor allowing the compensation committee of a target's board of directors to approve employment compensation, severance or other employee benefit arrangements for its executives during a tender offer negotiation.

Our results also indicate that apparently backdated unscheduled grants to target CEOs during private merger negotiations decline during the years after the Sarbanes-Oxley Act (SOX) passes. This finding highlights the importance and effectiveness of Section 403 of the Act, which requires public company

[2] The existing Rule 14d-10 of the 1934 Securities Act provides that no bidder may make a tender offer unless "the consideration paid to any security holder pursuant to the tender offer is the highest consideration paid to any other security holder during such tender offer."

officers and directors to report their receipt of stock options within two days of the grant. Nonetheless, we also find that, even after SOX is promulgated, many target CEOs realize healthy exercise premiums due to unscheduled options granted during merger talks. We find that, on average, these exercise premiums are about 25 percentage points larger than the takeover premiums target shareholders realize. Moreover, other results show that after SOX passes, a one week increase in the length of merger negotiations increases the payout related to unscheduled options by about 98,000 dollars. These findings suggest that SOX has reduced the targets' ability to backdate options but it has not reduced their ability to favorably time the issuance of unscheduled grants. Given our results, it is possible that further controls, aimed at strengthening disclosure requirements during mergers, are needed to deter shareholder expropriation.

The paper proceeds as follows. Section I reviews the literature and develops our hypotheses. Section II describes our data. Section III provides the empirical analyses we use to test our hypotheses. Section IV presents additional tests. Section V describes robustness issues we address. Section VI concludes.

I. Literature Review and Hypotheses Development

A. Evidence on Rent Extraction and Incentive Alignment

The efficiency of top management compensation contracts in general, and whether stock options benefit top managers more than shareholders in particular, continues to be the subject of considerable academic debate. Underlying this debate are two popular hypotheses: incentive alignment and rent extraction. The incentive alignment hypothesis states that an increase in equity holdings causes top managers to take actions that will enhance shareholder wealth. In contrast, the rent extraction hypothesis states that such increase occurs in anticipation of good news and is used by top managers with private information for their own benefit. Recent studies report evidence in support of the incentive alignment hypothesis. For example, Hall and Murphy (2002) find a positive association between CEO stock-based compensation and firm value. Hanlon, Rajgopal, and Shevlin (2003) show that future earnings are positively associated with stock option grants.[3] Fich and Shivdasani (2005) find that stock option plans for

[3] Their results could also be evidence of insider trading: knowing that future performance will be strong might lead managers to seek more stock option grants.

outside directors enhance firm performance. In contrast, other studies support the rent extraction hypothesis. For instance, Yermack (1997) finds that option grants are timed in anticipation of good news and Carpenter and Remmers (2001) show that top managers use their private information to time exercises of options. Bebchuk, Fried, and Walker (2002) indicate that the pattern of granting at-the-money options to CEOs is pervasive and designed to benefit the executives and not necessarily the firms' shareholders. Recently, Chhaochharia and Grinstein (2009) find a significant decrease in CEO pay due to a decrease in the option-based portion of the compensation. These authors document that such decrease occurs following the passing by the major U.S. exchanges of new requirements intended to enhance board oversight.

A.1 Rent Extraction vs. Incentive Alignment in Acquisitions

Recent papers suggest that CEOs of bidding firms personally benefit from acquisitions even when the bidding shareholders do not. For example, Grinstein and Hribar (2004) show that bidding CEOs receive large bonuses for orchestrating acquisitions irrespective of the deals' performance. Similarly, Harford and Li (2007) find that even in mergers in which bidding shareholders are worse off, bidding CEOs experience wealth increases three quarters of the time. Harford and Li (2007) argue that their findings reveal important weaknesses in the compensation contracts of top managers and provide evidence opposite to the incentive alignment hypothesis.

In the situation in which the sale of the firm is imminent, the incentive alignment perspective means that options granted to target CEOs prior to a merger deal are aimed at increasing firm value. Under this view, CEOs, who are often directly involved in the negotiations with the acquiring firm, will work hard to get the highest possible price for their firms. In contrast, the rent extraction hypothesis implies that such grants are designed to enrich top managers. Even though the academic evidence related to bidding CEOs does not support the incentive alignment hypothesis, there is some evidence supporting this hypothesis in the context of target CEOs. Heitzman (2006) finds that equity awards before an acquisition are used by boards to align CEO's and shareholders' incentives. He argues that such grants are more likely explained by incentive alignment issues within an acquisition setting and that there is no evidence that opportunistic actions by the target CEO drive observed equity grants prior to a firm's sale. Heitzman's conclusions are opposite to those we present in this paper. We believe that our empirical design, which focuses on the

option awards granted to target CEOs during the merger negotiation period, enables us to directly test whether the actions of many target firms are consistent with those predicted by the rent extraction hypothesis or with those predicted by the incentive alignment hypothesis.

Beyond corporate insiders, other parties closely related to the deal may benefit from their non-public knowledge of an impending acquisition. For example, Bodnaruk, Massa, and Simonov (2008) find that investment banks acting as merger advisors significantly increase their ownership in the target firms before deal announcements. These authors view their results as evidence related to the conflicts of interest affecting financial intermediaries that simultaneously advise on mergers and invest in equity markets.

B. Acquisitions and Payoffs to CEOs of Target Firms

Recent studies show that target CEOs might be willing to accept lower acquisition premiums. There is evidence that this can occur when acquirers promise target CEOs a high-ranking managerial post, such as a board seat in the combined firm after the acquisition is completed (Hartzell, Ofek, and Yermack, 2004, and Wulf, 2004). Although director compensation is often a fraction of what CEOs earn, it is possible that target CEOs seek a board seat in the combined firm to partially mitigate the future income they will lose when their firms are acquired. This probably explains why certain vehicles aimed at providing compensation relief to CEOs of firms that are sold, such as golden parachutes,[4] are often favorably received by investors (Lambert and Larcker, 1985). Rooted in this literature, we develop the compensation relief hypothesis. It predicts that CEOs more likely to forgo considerable future compensation due to the acquisition of their firms are more likely to receive unscheduled option awards when private merger negotiations are underway.

Stock and option holdings may provide a powerful incentive for CEOs to sell their firms. Cai and Vijh (2007) show that CEOs with higher illiquid equity and option holdings are more likely to get acquired, accept a lower premium, and offer less resistance. Cai and Vijh argue that, in the case of target CEOs, incentives to sell their firms arise from the adverse effect of illiquidity on the personal valuation of their

[4] A golden parachute is a clause in an executive's employment contract specifying that s/he will receive large benefits in the event that the company is acquired and the executive's employment is terminated. These benefits, which are provided to reduce perverse incentives such as derailing a profitable acquisition, may include severance pay, cash bonuses, stock options or a combination of these items.

securities. Meulbroek (2001) and Hall and Murphy (2002), among others, show that the executives' value of their firm's stock can be much lower than the market value. They argue that the difference arises because executives are often undiversified and unable to sell their stock or hedge their options due to several liquidity restrictions. This difference might explain (1) why CEOs who are able to sell their firms' stock do so when they get new option grants (Ofek and Yermack, 2000) and (2) the early exercise behavior of executives documented by Hemmer, Mastsunaga, and Shevlin (1996) and by Bettis, Bizjak, and Lemmon (2004). Since the equity and option holdings of CEOs play an important role in their incentives to sell their firms, our multivariate tests control for the potential effect that these variables may have in the incentive alignment or rent extraction behavior of target CEOs.

C. Corporate Governance and Payoffs to Shareholders of Target Companies

When a firm is targeted, the board has the authority and responsibility to evaluate an acquisition offer. When deals are approved, the appropriate corporate officers of both firms sign a merger agreement and the target's board files a proxy statement with the SEC detailing the arrangement. The target's board is also responsible for distributing the agreement and calling for a special meeting of the target shareholders where a formal vote ratifying the acquisition takes place. This process provides the target's board with considerable discretion over the ultimate success of an acquisition. For example, boards can adopt a variety of antitakeover measures, such as poison pills, in order to increase their ability to either defeat a takeover offer (Malatesta and Walkling, 1988) or enhance their bargaining position with the bidder (Comment and Schwert, 1995). To address this issue, when appropriate, our tests control for the Gompers, Ishii, and Metrick (2003) index which adds 24 antitakeover provisions tracked by the Investor Responsibility Research Company (IRRC).

Several papers document that the composition and incentives of the board of directors play an important role in determining the welfare of target shareholders in acquisitions. For example, Bange and Mazzeo (2004) find that firms with executives concurrently holding the titles of chairman and CEO are more likely to receive bypass offers that generate higher target shareholder gains.[5] Cotter, Shivdasani, and

[5] They define a bypass offer as an unsolicited tender offer for a controlling majority interest in a target that is allegedly unanticipated by management and by the board of directors.

Zenner (1997) find that a majority of outside directors enhance target shareholder gains. In addition, target shareholders obtain larger takeover premiums when institutional share ownership is high (Cotter and Zenner, 1994), and when top management has greater stock ownership (Song and Walkling, 1993).

The existing literature documents the importance of corporate governance in determining the way in which target shareholders fare during acquisitions. Therefore, in our tests, we control for several governance attributes for targets firms in our sample.

D. Securities Laws Violations around Acquisitions

Previous studies document that individual investors have made illicit profits in anticipation of acquisitions. For example, Keown and Pinkerton (1981) provide evidence of share price run-ups and excess returns earned by investors in acquired firms prior to the first public announcement of planned mergers. These authors argue that these excess returns arise due to leakages of information of the impending transaction which violates insider trading statutes of Rule 10b-5 of the 1934 Securities Act.[6]

Jarrell and Poulsen (1989) also document share price run-ups prior to acquisition announcements along with abnormally high volume. Meulbroek (1992) uses data from court filings to show that at least some of the pre-acquisition trading volume is driven by illegally informed agents. However, there are alternatives to the insider trading hypothesis to account for pre-acquisition price and volume run-ups. For example, according to Jensen and Ruback's (1983) market anticipation hypothesis, it is also possible that market participants foresee the acquisition, and their trades impound this anticipation into prices. In this context, Song and Walkling (2007) find that less anticipated bidders earn significantly greater returns. In a recent study, Madison, Roth, and Saporoschenko (2004) show that insiders with nonpublic information that their firms are acquisition targets can legally profit by delaying planned sales of their firms' stock. These authors explain that insiders who execute the latter strategy do not expose themselves to civil and criminal liability contemplated under the insider trading laws.

[6] Agrawal and Jaffee (1995) study whether Rule 16(b) deters insider trading by the target's managers. However, Agrawal and Jaffee explicitly exclude option compensation from their study.

D.1 Violations of Securities Laws in the Context of this Study

Unlike previous studies, our paper focuses on the wealth effects to target shareholders when their firms grant stock options to target CEOs as merger negotiations are underway. Zeroing on the negotiation phase is crucial to test whether or not options granted are periodic scheduled awards that just happen to fall during the negotiation period. Moreover, focusing on the negotiation period could be essential to examine whether the granting activity breaches securities laws.

Officials from the top U.S. securities regulators met on August 18, 2006 to discuss emerging trends in insider trading. In the meeting, Joseph J. Cella, chief of the office of market surveillance at the SEC, stated on behalf of the commission: "We are certainly cognizant of the up tick [of insider trading] in merger-and-acquisition activity," (Morgenson, 2006). If target CEOs receive stock options using their private knowledge of the eventual acquisition of their firms, then these executives might be in violation of the insider trading statute (Sections 16(b) and 10(b)) of the 1934 Act which proscribes purchasing or selling a security by any person while in possession of material, nonpublic information. However, Anabtawi (2004) argues that well-timed option awards are not actionable as insider trading violations, not even if the awards are backdated, because an option award does not constitute a "purchase" of securities under the 1934 Securities Act.

It is also possible that granting unscheduled options to target CEOs during merger talks infringes Rule 14d-10 of the 1934 Securities Act. This rule proscribes "bidders from making a tender offer unless the consideration paid to any security holder pursuant to the tender offer is the highest consideration paid to any other security holder during such tender offer." While this rule appears to be simple in concept, courts have wrestled on how to interpret it in the context of a variety of compensation arrangements of top executives of target companies (who are often shareholders as well).[7] Perhaps to ease the interpretation of the rule, on October 18, 2006, the SEC adopted amendments to the "best price rule" contained in Rule 14d-10(a)(2). The amendment provides a safe harbor enabling the compensation committee of a target's board of directors to provide employment compensation, severance or other employee benefit

[7] These arrangements often include severance payments, stay bonuses, non-compete payments, and other cash and equity compensation arrangements designed to retain and provide incentive to top managers.

arrangements for its executives during a tender offer negotiation. Given this amendment, it is unlikely that targets in our sample violate Rule 14d-10 of the 1934 Act.

E. Hypotheses

Stock options awarded to target CEOs while their acquisition is being privately negotiated provide a unique setting to study why these awards are granted during this period and whether target shareholders benefit from this activity. We begin with a null hypothesis termed the *scheduled award hypothesis* which states that the options are cyclic scheduled awards that just happen to be granted during the merger negotiation period. An alternative explanation is that the options are unscheduled grants. This alternative brings forth at least three different hypotheses. The first is that the unscheduled awards provide target CEOs with *compensation relief* when their firms are acquired. Compensation relief might be particularly important for CEOs likely to continue in office for several years if their firms were not sold. Another alternative is the *incentive alignment hypothesis*. It predicts that unscheduled option grants to target CEOs during merger negotiations will induce CEOs to obtain higher offers for their firms. Another alternative explanation is the *rent extraction hypothesis* which states that unscheduled options enrich target CEOs but not necessarily their firms' shareholders. Because it is possible that these hypotheses are not mutually exclusive, our tests are intended to help distinguish as much as possible among them. Before we explain and discuss our tests, we describe the data used in this study.

II. Data and Sample Selection

We begin with 3,980 mergers and acquisitions tracked by the Securities Data Company (SDC) announced during 1999-2006 in which the target is a publicly traded U.S. company.[8] From the initial sample, we retain 3,521 deals in which targets have stock market and accounting data available from the Center for Research in Security Prices (CRSP) and from Compustat, respectively. From this group, we keep 884 transactions where corporate governance data for target firms are available from the IRRC. After matching these 884 deals with data from the Thomson Financial's Insiders Filing database, we note that

[8] Our sample begins in 1999 because the Thomson Financial's Insiders Filing database starts in 1996 and because we require three years of previous option granting activity in order to establish each target's option granting pattern.

620 of these 884 targets use stock options to compensate their CEOs and 196 of the option granting targets do so after their private acquisition negotiations begin. We study these 196 deals. This choice is motivated by the idea that option grants to target CEOs during merger negotiations, particularly unscheduled awards, are made while the target firm is aware of the non-public information of its potential acquisition. Nonetheless, in robustness tests we expand the analyses to include (a) option grants prior to the start of merger negotiations, (b) non-target firms that grant their CEOs stock options, and (c) targets that do not use options to compensate their CEOs.

Panel A of Table I reports the industry distribution of the 196 mergers. Based on the Fama and French (1997) industrial classification, our sample appears well scattered across several industries. However, the Business Services industrial classification exhibits some clustering with just over 15 percent of the target firms belonging to that industry. Panel A, Table I also reports the temporal distribution of the 196 deals. Our sample spans periods of both economic expansion and recession. The annual number of mergers announced is higher at the beginning of our sample period, which coincides with periods of economic expansion when the stock market valuation is higher. Conversely, merger activity is lower during the 2002-2003 period of economic contraction. Rhodes-Kropf and Viswanathan (2004) show that stock market health drives merger activity. Shleifer and Vishny (2003) also document the effect of stock market health on the number of acquisitions. The temporal distribution of our sample appears in line with the merger activity reported in these studies.

In Panel B, Table I we report the mode of acquisition, method of payment, attitude, and other characteristics related to deals in our sample. We note that, among the 196 deals, 92 or about 47 percent are cash acquisitions. This incidence is similar to that in Bates and Lemmon (2003). They study merger agreements during 1989-1998 and find that 47 percent of the deals are paid in cash. We read the S-4 and 13D filings by the acquirer firms and form DEFM14A filed by the target firms.[9] This information, which

[9] According to the SEC, form S-4 may be used for registration of securities to be issued (1) in a transaction of the type specified in paragraph (a) of Rule 145 (of the 1933 Act); (2) in a merger in which the applicable state law would not require the solicitation of the votes or consents of all of the security holders of the company being acquired; (3) in an exchange offer for securities of the issuer or another entity; (4) in a public reoffering or resale of any such securities acquired pursuant to this registration statement; or (5) in more than one of the kinds of transaction listed in (1) through (4) registered on one registration.

we supplement with news event searches in Lexis/Nexis, enables us to identify the date when the deal is initiated as well as the party that initiates it.[10] We find that in over 53 percent of all cases the acquiring company initiates the deal. The overwhelming majority of the transactions (about 95 percent) consist of friendly mergers. This frequency also mirrors that in Bates and Lemmon (2003). Deals in our sample are completed over 93 percent of the time. Boone and Mulherin (2007) report a similar completion rate of over 94 percent in their sample of takeovers during 1989-1999.

Panel C of Table I reports key firm characteristics for our target firms. The average (median) target in our sample has a market capitalization of $3.780 billion (1.073) and is purchased for $4.076 billion (1.472). These figures are similar to those in Grinstein and Hribar (2004). They study acquisitions during 1993-1999 and report an average deal value of $4.7 billion for targets in their sample. The average target in our sample exhibits a market-to-book ratio of 1.715 which is comparable to a value of 1.634 for the same ratio that Bates and Lemmon (2003) report for the targets in their sample.

For each award, we estimate the Black-Scholes (1973) value of the stock option grant (adjusted by stock splits as per Merton (1973)) with data from the Thomson Financial's Insider Filing database. Figure 1 provides information about the 278 options grants issued by our 196 target firms. The first column in the figure shows that, on average, targets grant total options valued at 9.25 million dollars. The third column shows these awards consist of about 907,000 shares. On average, each grant is worth 4.45 million dollars (column 2) and consists of about 640,000 shares (column 4).

III. Unscheduled Option Awards to Target CEOs During Merger Negotiations

Yermack (1997) and Aboody and Kasnik (2000) indicate that most CEOs of public companies in the U.S. receive stock option awards once each year. Therefore, it is likely that managers trying to increase their option holdings before acquisitions might not be able to receive additional grants during the annual board meeting in which options are regularly awarded. If this occurs, options would have to be issued at unscheduled times. To identify awards likely to be unscheduled, we study the option granting patterns for our target companies for at least three years prior to the acquisition offer. We note that most boards

[10] Information from news sources is particularly helpful in collecting data for 12 deals that are eventually withdrawn.

schedule their meetings at regular intervals. Some boards use the same calendar date to meet, such as the third day of the months they will meet, and will convene during the next business day if such day happens to fall on a weekend or holiday. Other boards select a certain day of the week during a certain week, such as the second Tuesday of the months they will meet. We classify a grant as a regular or scheduled option award if it is dated within 14 days of the one-year anniversary of a prior grant. Grants are classified as unscheduled otherwise. Using this classification, 110 of the 196 target firms in our sample grant at least one unscheduled award while their acquisition is being privately negotiated. This frequency is inconsistent with the idea that option grants are programmed awards that just happen to overlap with the merger negotiation period as the scheduled option hypothesis predicts.

We perform additional checks to ensure the accuracy of our classification of options as unscheduled or scheduled awards. We read the proxy statements filed by the target firms to verify that our classification does not result from (1) revisions in compensation policies, (2) appointing of an interim chief executive, and/or (3) renegotiations of an existing employment contract. We supplement the information obtained from proxy statements with information from searches in Lexis/Nexis and the financial press.

Table AI in the appendix provides a representative example of a target that grants its CEO unscheduled options during the merger negotiation period. Next, we study three different hypotheses to understand why targets issue unscheduled options to their CEOs while their sale negotiation is in progress.

A. The Compensation Relief Hypothesis

The compensation relief hypothesis argues that target firms are more likely to issue unscheduled awards to their CEOs to mitigate the large personal losses these executives will incur as their firms are sold. These losses are mainly due to the lost income for the expected years the CEO would remain in office as well as for the absence of golden parachutes and other payments frequently given to CEOs when their firms are sold.

As noted earlier, 110 of the 196 target firms we study grant at least one unscheduled award while merger talks are underway. To investigate the characteristics of targets that issue options during negotiations and test our compensation relief hypothesis, we run a bivariate logit model where the dependent variable is "1" if at least one unscheduled option award is granted to the target's CEO after

merger negotiations begin and is "0" otherwise. As we discuss in the previous section, we are able to determine the date negotiations start by reading different filings and literature describing the history of each transaction. We estimate five different logit regressions of the determinants of the unscheduled options and report our findings in Table II. All regressions control for year fixed effects as well as for other variables which are defined in the legend accompanying Table II.

In order to examine our compensation relief hypothesis, we include the present value of the expected lost compensation by the target CEO as the key independent variable in the logit models of Table II. To calculate the present value of the expected lost compensation, we use information on salary, bonus, other annual compensation, long-term incentive payout, golden parachutes, and the value of restricted stock and option awards as reported in proxy statements. [11] We standardize this variable by the total compensation received by the target CEO during his last year in office under the view that, all else equal, the same expected loss would be more severe for CEOs who earn lower total compensation packages. The inclusion of the golden parachute in the calculation of the lost compensation accruing to target CEOs is particularly important because it is possible that the absence or size of a golden parachute may lead boards to grant their CEOs unscheduled options when merger negotiations are in progress.

In all regressions in Table II, the coefficient estimate for expected lost compensation is positive and statistically significant. The marginal effect implied by this coefficient estimate indicates that a 10 million dollar increase in expected lost compensation raises the probability of receiving an unscheduled award during merger negotiations by about 9.4 percentage points.[12] To put this result in perspective, target CEOs in our sample expect an average present value pay loss of just over 46 million dollars when their companies are sold. In addition, we note that all regressions control for the fraction of option-based pay

[11] This approach follows the method of Fich and Shivdasani (2007) who estimate the financial magnitude of personal losses of sued directors. For the calculation, we make a number of assumptions. First, following Hartzell, Ofek, and Yermack (2004), we assume that all CEOs retire by age 65 and that CEOs who are at least 65 years old expect to stay in office one more year before retiring. Second, following Yermack (2004), we assume that the probability of departure increases by 4% each year due to acquisitions, delistings, or other turnover reasons. Third, we assume that salary and bonus would increase by 2% from that received during the year prior to acquisition when firm performance is above the Fama and French (1997) median industry ROA. This assumption follows Bebchuk and Grinstein (2005), who report a 40% increase in salary and bonus for the period 1993-2003. Fourth, we assume that the probability of departure increases by an additional 2% when firm performance is below the median industry performance. Finally, we use a real rate of 3% to discount cash flows.

[12] This marginal effect is obtained by evaluating the partial derivative of the likelihood function at the mean total target CEO compensation of 6.86 million dollars.

CEOs receive relative to their total compensation. This variable exhibits negative and significant coefficients in all specifications, indicating that unscheduled options are unlikely to be issued to CEOs for which options already represent a sizable portion of their total pay package. We interpret the results in Table II as evidence in support for the compensation relief hypothesis which predicts that unscheduled options to CEOs are more likely when these executives expect large compensation losses once their companies are acquired.

Our tests control for the presence of busy boards, which we define as those in which at least half of the outside directors hold three or more directorships. Core, Holthausen, and Larcker (1999) find that busy boards overpay their CEOs. Our findings indicate that under busy boards, targets are about 21 percentage points more likely to grant their CEOs unscheduled options during the acquisition negotiation period. In addition, targets in which there is a change in control clause in the CEOs' compensation contract are 6.5 percentage points more likely to grant these executives unscheduled options during merger talks. As discussed earlier, these clauses call for option vesting periods and other restrictions to disappear when firms are sold.

The analysis in Table II also yields a result with potential public policy implications. The coefficient estimate for the post-Sarbanes-Oxley Act deal indicator is negative and significant. The marginal effect for this variable indicates that granting unscheduled options to target CEOs during the merger negotiation period is almost 57 percentage points less likely after the Act is promulgated. This finding indicates that SOX has reduced, but not completely eradicated, this activity.[13]

B. Incentive Alignment vs. Rent Extraction

The preceding tests indicate that targets are inclined to issue unscheduled options awards to their CEOs while their merger negotiation is in progress if the executives expect large compensation losses due to the sale. While this result is consistent with our compensation relief hypothesis, it is also possible that the unscheduled options motivate CEOs to negotiate higher premiums for their target firms. A higher premium would increase the wealth of both CEOs and shareholders. It is also possible that, aside from

[13] Chhaochharia and Grinstein (2007) find that the announcement of the SOX rules has a significant effect on firm value. These authors show that, upon the rules' enactment, firms that are less compliant with the provisions of the rules earn positive abnormal returns compared to firms that are more compliant.

providing additional pay for target CEOs, target shareholders do not benefit from unscheduled grants. To explore these issues, we first study the premiums paid for targets in our sample.

B.1 Univariate Tests of Acquisition Premiums

For our entire sample of 196 deals, we follow a long literature in mergers and acquisitions and analyze two different proxies for the acquisition premium.[14] First, following Dodd and Warner (1983), we compute cumulative abnormal returns *(CARs)* running from 20 days prior to the deal's announcement date (AD-20) until one day after the deal is announced (AD+1). We also use the four week acquisition premium as reported by SDC which is calculated as the offer price divided by the target's stock price four weeks before the merger public announcement date. Panel A of Table III reports these premiums for all targets and also reports the mean and median premiums sorted by whether the targets grant scheduled or unscheduled options during non-public merger negotiations. For our entire sample of targets, averages for the *CAR* [AD-20, AD+1] and the four-week premium are 22.70% and 34.81%, respectively. These values are comparable to the premium averages of 22.7% and 34.8% reported by Hartzell, Ofek, and Yermack (2004), and close to the 23.79% and 31.84% reported in Cai and Vijh (2007), respectively.

The results in Panel A of Table III also show that mean and median premiums paid for targets that issue unscheduled awards are not statistically different from the premiums paid for targets that issue scheduled options. On the one hand, this result is inconsistent with the idea that unscheduled awards align the incentives of target CEOs and target shareholders. On the other hand, it is possible that certain target firms are better-off being sold even if these firms do not earn a higher premium. If unscheduled awards encourage target CEOs to sell these firms then our results could be consistent with the incentive alignment hypothesis.

B.2 Multivariate Tests of Acquisition Premiums

Given the univariate nature of the tests in Panel A of Table III, we use our takeover premium proxies as dependent variables in a set of three regressions in which the explanatory variable of interest is an indicator that is "1" if the target grants at least one unscheduled option during the merger negotiation

[14] Officer (2003) and Bates and Lemmon (2003) use the SDC premium while Boone and Mulherin (2007) use the 4-week premium in their robustness tests. Hartzell, Ofek and Yermack (2004) and Cai and Vijh (2007) use both proxies.

period and is "0" if the options granted are scheduled awards. The regressions, which are reported in Panel B of Table III, also control for several variables, defined in the legend accompanying Table III, that affect acquisition premiums as previous research documents. In addition, we realize that the decision to issue unscheduled stock option awards during the merger negotiation period has its own determinants. Therefore, we use the inverse Mill's ratio in two of the three regressions to control for self-selection bias.[15]

Consistent with the univariate tests, the coefficient estimate for the unscheduled awards indicator is statistically insignificant in all the regressions in Panel B of Table III. This result indicates that unscheduled options do not affect the magnitude of the premiums paid for targets in our sample. Other results in Panel B of Table III are analogous to those in other studies. For example, as in Schwert (2000) we also estimate positive and significant coefficients for deals in which the consideration is paid for in cash and for deals involving tender offers, respectively. All of the premium regressions in Table III control for the targets' previous stock market excess return as well as for accounting performance. Similar to Hartzell, Ofek, and Yermack (2004), we also find that prior year excess return is positive and significantly related to the premium. In unreported tests, we rerun all models in Panel B of Table III in a subsample of deals for which we can calculate the relative size of the merger participant firms.[16] As in Jarell and Poulsen (1989), we find negative and statistically significant coefficients for this variable. However, the inclusion of the relative size variable in the regressions does not alter the lack of statistical significance of the unscheduled grant indicator.

Both univariate and multivariate tests in Table III reveal that targets granting their CEOs unscheduled options when non-public deal talks have started do not necessarily obtain higher premiums for their firms. This result appears counter to theories of incentive alignment. A potential concern related to the results in Table III is the implicit assumption that targets are going to be eventually acquired. Under this assumption, the alternative of no acquisition is not taken into consideration. We note that not all deals in our sample are

[15] We use the Heckman (1979) self-selectivity correction which involves using a first-stage estimation of the probability of granting unscheduled options during negotiation with a logit model similar to those reported in Table II without the deal characteristics. The logit is estimated for the universe of target firms that grant options to their CEO either before or after negotiation has started, with data from CRSP, Compustat, IRRC, and the Thomson database. In the second stage, the inverse Mill's ratio from the logit model is included in the estimation as a variable to control for self-selection.

[16] We do not have market value information for 28 private acquirers. Relative size equals the market value of the target's equity divided by the market value of the acquirer's equity.

completed. In addition, it is possible that options are necessary in order for acquisitions to materialize. This could be particularly important for firms for which an acquisition is preferable. Under this view and notwithstanding ethical and legal issues, the premium results in Table III could indicate that the granting of unscheduled options during the merger negotiation period might be consistent with the incentive alignment hypothesis.

B.3 Do Target CEOs Trade Premium for Power?

Our previous tests show that targets that issue unscheduled options to their CEOs during the negotiation period do not receive higher premiums. Earlier research by Hartzell, Ofek, and Yermack (2004) and by Wulf (2004) finds that targets headed by CEOs who secure a directorship or other position of power in the combined firm receive lower takeover premiums. In our case, it is possible that CEOs of targets where option awards are unscheduled are also more likely to get a board seat or other employment in the combined firm. If this occurs, the prospect of obtaining the position in the merged firm might also explain why the premiums these CEOs negotiate for their firms are not significantly larger than those obtained by other targets. Moreover, a job in the combined firm and the income and benefits of such position might mitigate the necessity to provide CEOs with compensation relief. To test these conjectures, we collect and review board and executive appointments for the 131 completed deals for which the acquirer is tracked by IRRC. We also pay close attention to the composition of the board of directors of the acquiring firm during the year of the acquisition. We believe that acquirers' board membership during the year of the deal is important because if a target CEO is already seating on the acquirer's board, accepting a lower premium for his firm may enable the target CEO to keep the directorship in the combined firm.

In Table IV, we run bivariate logit regressions of the probability that target CEOs obtain a position of power in the combined firm.[17] The dependent variable in the logit specification is "1" for target CEOs that obtain a position in the combined firm or hold such position during the year the deal is executed. Altogether, we run two different regressions controlling for various target- and deal-specific variables. These control variables are defined in the legend accompanying Table IV. Present in all regressions is a

[17] We consider directorship positions as well as executive appointments such as CEO of the acquirer or a subsidiary, chief financial officer, chief operating officer, chairman, vice-chairman, president, or vice-president in the merged firm.

(0,1) dummy variable that is "1" for targets issuing unscheduled options and is "0" for those issuing scheduled awards. Coefficient estimates in all regressions are negative and statistically significant for our unscheduled grant dummy. This result, which obtains in all specifications and is robust to several target- and deal-specific control variables, casts doubt on the idea that, for these firms, getting a position in the combined firm would entice CEOs that get unscheduled options to negotiate an unfavorable premium. A more plausible explanation for the result is that, by obtaining a position in the combined firm, target CEOs would risk having their options not vest when the acquisition is completed. In terms of the marginal effect implied by the coefficient estimates in Table IV, CEOs receiving unscheduled options during merger negotiations are almost 22 percentage points less likely to hold employment in the combined firm. Another potential interpretation of our result is that since these CEOs will not be attractive candidates for a job in the combined firm, they will not enjoy the compensation and benefits of such position and perhaps even similar ones at other firms.[18] This interpretation of the result might explain the need of these executives to receive compensation relief with unscheduled option awards.

B.4 Event Study: Option Grants to Target CEOs

To directly test whether unscheduled options are a vehicle that facilitates rent extraction by the target firms or serves the interest of target shareholders, we examine abnormal returns around the dates when these awards are issued. For each grant, we estimate *CAR*s running from 29 days before the award is issued until the issue date [-29, 0] and from the day after it is issued until 30 days after [1, 30].[19] In Table V, we report mean and median *CARs* for all grants and for subsamples of scheduled and unscheduled awards. Estimates in Table V show that all grants are associated with insignificant returns prior to the issuance of the awards. However, after issuance, unscheduled awards experience a tremendous surge in abnormal returns. In terms of both the mean and median *CAR*, such boost is statistically different from the modest increase in returns experienced by the scheduled awards. The median unscheduled grant is associated with

[18] Brickley, Linck and Coles (1999) discuss the characteristics of retiring CEOs that obtain directorships in other firms.
[19] Yermack (1997) finds that many CEOs receive stock options around favorable company announcements. We search the Lexis/Nexis database for news that may confound the option grant event. We find 36 cases in which company news that may confound the grant event is released. Our results continue to hold when these 36 cases are removed from the analyses.

a post-issuance 30-day *CAR* of 3.6 percent. In contrast, during the same period the median scheduled grant raises by only 0.04 percent.

Under Section 403 of the Sarbanes-Oxley Act of 2002, option grants to senior management must be reported with the SEC within two days of the grant date. This requirement suggests that unscheduled awards might be less likely to be retroactively dated at low stock prices if the grants are reported within two days of their issuance. In Figure 2, we plot the daily abnormal return path followed by our sample targets that issue unscheduled awards during merger negotiations.[20] The figure shows cumulative abnormal returns during the 61-day period centered on the issuance of the grants. Figure 2 exhibits a V-shaped pattern, characteristic of stock option alleged backdating activity as documented in Heron and Lie (2007) in their study of the timing of stock option grants during 1992-2002.[21] During the negotiation period, target firms appear to grant unscheduled options when the firm's stock price is at its lowest point. The issuance date appears to be a turning point as target firms exhibit remarkable valuation improvements after the options are awarded. Figure 2 also shows that the supposed backdating activity of unscheduled awards appears to subside following the promulgation of the Sarbanes-Oxley Act. This finding suggests that the two-day reporting requirement in Section 403 of the Act has a material effect in deterring option backdating.

The results in Table V and the backdating patterns depicted in Figure 2 suggest that CEOs receiving unscheduled options while private merger talks are underway benefit from these awards. While it is clear that this finding is consistent with the compensation relief hypothesis, it is not as clear whether the result helps us distinguish between the incentive alignment and the rent extraction hypotheses. If we take into consideration that allegations of backdating stock options might be inappropriate and that unscheduled awards are issued to target CEOs while the targets have private knowledge of their eventual acquisition, then our findings are consistent with the rent extraction hypothesis. However, if we consider the possibility that for some firms an acquisition will put the targets' assets to their highest value use, then our results could be consistent with the incentive alignment hypothesis.

[20] We thank David Yermack for this suggestion.
[21] The V-shape in Figure 2 continues to obtain when we use net-of-market or Fama-French expected returns as benchmarks.

B.5 Multivariate Analyses of Abnormal Returns Related to Option Grants

Lie (2005) and Heron and Lie (2007) make the case for backdating relying on specific patterns which we also examine for targets that extend options to their CEOs while their sale is being negotiated. Those authors note that most scheduled option grants do not exhibit formidable price increases following their issuance as do unscheduled grants. The evidence in Lie (2005) and in Heron and Lie (2007) also indicates that delays in disclosing unscheduled awards augment the post-issuance performance these grants exhibit.

In Table VI, we explore the empirical patterns associated with the possible backdating of stock options in the sample of 278 grants for our 196 targets. The dependent variable is the *CAR* for each target firm accruing during the 30 day period following each grant's inception date. We run a total of five regressions; in all of them, the key independent variable indicates whether the option grant is unscheduled. All regressions control for target- and deal-specific characteristics (described in the legend accompanying Table VI) as well as for time effects; regression (4) controls for self-selection.

Results in Table VI provide evidence consistent with the alleged backdating of option awards by targets that issue unscheduled grants during merger talks. In regression (1), which we run using all 278 awards, the coefficient for the unscheduled grant dummy indicates that abnormal returns increase by about 5 percent after the unscheduled grant's inception. In regression (2), we limit the sample to option grants filed before the promulgation of the Sarbanes-Oxley Act. The coefficient for the unscheduled grant dummy in this test doubles indicating a post-issuance abnormal return increase of about 10 percent. In regressions (1) and (2), we also note that reporting delays are positively associated with the post-issuance performance of the grant. This result is in line with those in Lie (2005) and Heron and Lie (2007) that the reporting delay of the grant has a material effect on the post-inception performance of the awards. Put differently, our result suggests that the longer the reporting of the grant is delayed, the better able firms are at identifying a favorable date to retroactively issue the award.

An issue of potential concern in the context of our examination is the extent to which the takeover premium that targets experience drives the post-issuance performance of the targets that grant unscheduled stock options. To investigate this issue, in models (3) and (4) of Table VI, we exclude 44 option grants awarded within 50 days prior to the announcement of the deal. The unscheduled grant indicator and the

reporting lag variable in these regressions continue to exhibit positive and statistically significant coefficients that imply meaningful share price revaluations following the grant's inception.

In model (5) of Table VI, we examine all grants issued after the promulgation of the Sarbanes-Oxley Act. Coefficient estimates for the unscheduled grant indicator and for the reporting lag variable are not statistically significant. This finding suggests that Section 403 of the Act, which mandates top managers in public firms to report their receipt of stock options within two days of the grant, has had a material effect in deterring likely option backdating in target firms during merger negotiations.

Overall, the results in Table VI indicate that unscheduled option grants during target negotiations appear to be backdated awards aimed at enriching CEOs. We show that unscheduled awards experience value appreciations even before mergers are announced. Consistent with the literature on backdating, we also show that such appreciation is more pronounced when options are reported late. This evidence, coupled with our earlier takeover premium results, provides strong support for the rent extraction hypothesis to explain why targets issue unscheduled stock option awards to their CEOs while their own acquisition is being negotiated. Nonetheless, because the apparent backdating occurs during the negotiation period, it is also possible that such activity indicates that the target is doing everything possible to get the deal done. This could be particularly important for firms that are better-off if they are acquired. Based on this interpretation, and aside from any legal and ethical considerations, the potential backdating activity we uncover might be consistent with non-opportunistic behavior by the target firms we study.

IV. Additional Tests

A. Effective Premiums Target CEOs Realize

The benefits accruing to target CEOs who receive unscheduled stock options while negotiations of the eventual acquisition of their firms are underway may surpass the benefits accruing to their own target shareholders. If the incentives of CEOs and shareholders are truly aligned, then their wealths are likely to rise and fall at the same time.

We contrast the effective premiums realized by CEOs and shareholders of our target firms. For all CEOs, we estimate an exercise premium accruing to the options awards calculated as the offer price

divided by the average option exercise price. For shareholders we use the four-week premium. We are aware that, by construction, these premiums are likely to be different and therefore might not be perfectly comparable. However, our goal in contrasting these premiums is to provide some perspective on how the same acquisition event impacts the wealth of target shareholders and target CEOs.

Table VII, Panel A reports these premiums split by whether the options grants to target CEOs are unscheduled. The results indicate that target CEOs receiving unscheduled awards fare far better than their own shareholders. These executives realize an average exercise premium of over 56 percent whereas the shareholders in the same targets obtain takeover premiums that are about 20 percent lower. These differences are statistically significant. In contrast, the premiums realized by CEOs and shareholders of targets that issue scheduled option are not statistically different. This evidence also supports the rent extraction hypothesis and not the incentive alignment hypothesis to justify why certain targets grant their CEOs unscheduled options when their sale negotiation is taking place.

The results related to apparent option backdating in Figure 2 and in Table VI indicate that this activity has considerably subsided after the enactment of the Sarbanes-Oxley Act. In Panels B and C of Table VII we study the premiums realized by CEOs and their target shareholders during the pre- and post-SOX periods, respectively.[22] As expected, the results in Panel B indicate that mean and median exercise premiums earned by target CEOs prior to SOX are significantly larger than the takeover premiums earned by their target shareholders. In Panel C, we report a somewhat unexpected finding. Our estimates in Panel C indicate that even after the promulgation of the Sarbanes-Oxley Act, target CEOs still realize hefty exercise premiums arising from unscheduled options awarded during merger talks. Indeed, such premiums significantly exceed the takeover premiums target shareholders realize by about 25 percent. This last

[22] We note that takeover premiums drop after SOX is enacted. We check whether this is the case for the 3,980 deals we identify in SDC from 1999-2006 described in Section II. From that sample we compare the SDC acquisition premiums for 3,567 deals with available premium data. We find that the median acquisition premium drops from 41.87% pre-SOX (2,079 deals) to 28.60% post-SOX (1,488 deals). These statistics compare favorably with those we report for targets in our sample in Panels B and C of Table VII. It is possible that the additional regulation imposed by SOX has effectively reduced takeover premiums. Earlier research on the effect of regulation on takeover premiums presents mixed evidence. For example, Jarrell and Bradley (1980) argue that the passing of the Williams Act in 1968 increases tender offer cash premiums. However, Nathan and O'Keefe (1989) show that takeover premiums drop during the five years after the Williams Act is promulgated.

finding suggests that Sarbanes-Oxley may have ameliorated the targets' ability to potentially backdate stock option grants but not their ability to favorably time these awards.

B. Timing of Option Awards and Profits to Target CEOs

The preceding tests suggest that the new reporting rules in SOX have significantly curtailed a target's ability to retroactively date option grants. These tests also indicate that, despite their inability to potentially backdate grants, unscheduled option awards granted during merger negotiations continue to generate hefty windfalls for target CEOs even after SOX. To better understand the factors affecting these windfalls, we run four different tobit regressions in Table VIII. In all regressions, the dependent variable is the actual dollar profit the 196 target CEOs in our sample earn due to option grants they receive during merger negotiations. The key independent variable in regression (1) is the length of merger negotiations which we estimate as the number of days elapsed from the start of merger talks until the deal is announced. The coefficient estimate related to this variable is positive and significant (0.008, *p*-value = 0.003) and indicates that a one week increase in the negotiation period increases the option-related payout to target CEOs by about 56,000 dollars. A (0,1) dummy indicating whether the option is unscheduled is the key independent variable in regression (2). This variable also exhibits a positive and statistically significant coefficient (2.667, *p*-value = 0.06) which implies that option-related payouts to target CEOs are about 2.7 million higher when the grant is unscheduled. In regression (3), the key independent variable is a dummy that is "1" if the grant occurs after the promulgation of SOX and is "0" otherwise. The estimate related to this dummy variable is not statistically significant at conventional levels. This result suggests that option-related payouts are similar in the pre- and post-SOX periods. In regression (4) we estimate the joint effect of the key explanatory variables in the previous three regressions. For this purpose, the key independent variable in regression (4) is the interaction of the length of merger negotiations, the unscheduled indicator, and the post-SOX indicator. Estimates in regression (4) indicate that the joint effect of these variables, (0.01, *p*-value = 0.013), is positive and significant. Moreover, the combined value of the interaction and length of negotiation variables in regression (4) is also positive and statistically significant (0.014, *p*-value = 0.001). This result implies that, in the post-SOX period, a one week increase in merger negotiations increases the payout related to unscheduled options by about 98,000 dollars. This finding indicates that,

despite the option reporting requirements mandated by SOX, target firms are able to favorably time unscheduled options they grant their CEOs even after SOX passes.

C. Unscheduled Awards and Deal Completion

Our earlier tests show that unscheduled stock option awards to target CEOs experience formidable value increases after the awards' inception. Clearly, in order for target CEOs to realize the profits associated with these awards the acquisition has to go through so that all options vest and all stock sale restrictions are lifted. To address this issue, we estimate a bivariate logit model in which the dependent variable is "1" if the acquisition is completed and is "0" otherwise. As in previous tests, the key independent variable is the unscheduled option indicator. We run a total of three regressions in Table IX.

The results in regressions (1) and (2) of Table IX, which we run for the entire sample of 196 acquisitions, indicate that deals in which targets issue unscheduled awards to their CEOs are 4.55 percentage points more likely to be completed. Shleifer and Vishny (2003) argue that target managers who are more focused on the short run should be more likely to sell their firms. It is possible that gains arising from unscheduled options facilitate transactions by shifting CEO's orientation more toward the short run. In model (3), we run the same regression in a subsample of deals in which the targets delay the reporting of option grants by two or more days. In this regression, the coefficient estimate and the marginal effect associated with the unscheduled options increase threefold, suggesting that in situations in which the apparent backdating is probably more deliberate the incentives to complete the acquisition are stronger. In general, we view the findings related to the deal's completion as evidence in support for the rent extraction hypothesis. However, an alternative explanation could be that targets use unscheduled grants to entice their CEOs to go along with the acquisition. Under this view, CEOs are less likely to resist the sale of their firms. This alternative explanation is not necessarily inconsistent with the incentive alignment hypothesis particularly if the deal is the ideal outcome for some targets.[23]

[23] Our earlier results show that CEOs receive sizable payouts when their firms are sold as a result of unscheduled option awards granted during the merger negotiation period. Other tests suggest that such payouts do not necessarily benefit target shareholders. The results in Table IX indicate that targets that issue unscheduled options to their CEOs are more likely to complete their sale. This last result implies that such awards induce top managers to offer less resistance during acquisitions. Therefore, it is possible that the absence of such powerful incentive might lead to mergers that do not materialize at the detriment of those target shareholders.

Other results in Table IX are in agreement with those in previous studies. For instance, the marginal effect associated with our target termination fee provision variable is 12.98 percentage points, which is close to that of 11 percentage points in Officer (2003) and that of 15.5 percentage points in Bates and Lemmon (2003), respectively. Officer (2003) reports a marginal effect of 2 percentage points for the acquisition premium in his sample. This value is close to the marginal effect of just over 1.3 percentage points we estimate for the acquisition premium in our sample.

V. Robustness Issues

A. Targets that Grant both Scheduled and Unscheduled Options

Twelve targets in our sample grant both scheduled and unscheduled options during negotiation. In all the appropriate tests, we replace the unscheduled grant (0, 1) variable by the proportion of unscheduled grants in terms of either the number of shares or the Black-Scholes value of the awards. The results related to these tests yield inferences qualitatively similar to those reported.

B. The Effect of Golden Parachutes

A golden parachute is a contractual agreement between a company and an upper level executive specifying that the employee will receive significant benefits if employment is terminated. These benefits, which are provided to reduce perverse incentives such as derailing a profitable acquisition, may include severance pay, cash bonuses, stock options or a combination of these items. It is possible that the absence or the size of a golden parachute may lead target boards to provide unscheduled options to their CEOs during the negotiation period of a merger that is likely to materialize. In Section III.A above, we study the determinants of unscheduled options and consider the effect of golden parachutes by including them in the calculation of the target CEO expected lost compensation. Nonetheless, to study the effect of golden parachutes in more detail, we replace the lost compensation with the size of the golden parachute in a set of regressions that are otherwise identical to those reported in Table II.[24] The estimate for this variable is negative and statistically significant indicating that boards might be more likely to issue unscheduled

[24] In the regression, the size of the golden parachute variable is the natural logarithm of payments identified as golden parachute compensation in the S-4 proxy filed by the acquirers and/or the targets' DEFM14A filing. These payments may include a merger bonus and a cash payment based on the CEOs' regular cash-based salary.

options when parachutes are small or not offered. In terms of the marginal effect implied by the coefficient estimates, a one standard deviation increase in the mean parachute decreases the probability of granting unscheduled options during merger negotiations by about 6.8 percentage points. To put this result in perspective, the average parachute in our sample is 7.67 million dollars.

We interpret the results related to golden parachutes as evidence consistent with the compensation relief hypothesis. Our findings suggest that eleventh hour unscheduled options might be a way for compensation committees to circumvent the effect of the lack of an appropriate golden parachute.

C. Alternative Measures of Abnormal Returns

Our analysis uses the market model to estimate abnormal returns around the merger announcement and option grant dates. We replicate all tests using alternative measures of abnormal returns including: (a) net of market returns, (b) buy and hold returns, (c) raw returns, and (d) excess returns from the Fama-French three factor model. The results using these different return specifications are similar to those for the market model reported in Panel B of Table III and those in Table VI.[25]

D. Classification of Unscheduled Grants

Due to our discussions with some practitioners, the classification of scheduled grants we use is not too restrictive. We use a large window of two weeks of the one year anniversary of a prior grant to classify scheduled grants. This window, which is larger than the one employed in Lie (2005), would actually work against uncovering unscheduled and potentially backdated awards. We replicate our analysis with a window of one week of the one year anniversary of a prior grant. Doing so increases the number of target firms that grant unscheduled options during negotiation from 110 to 117. The results associated with the use of this classification are qualitatively similar to those using the two week window. In the most extreme

[25] (a) Net of market return: The coefficient on the unscheduled grant (0,1) variable in Table III Panel B regression (1) is still insignificant with a *p*-value of 0.692. The coefficients on the unscheduled grant (0,1) variable in Table VI are significant with *p*-values of 0.011, 0.002, 0.008, and 0.011 in regressions (1), (2), (3), and (4), respectively. (b) Buy and hold return: The coefficient on the unscheduled grant (0,1) variable in Table III Panel B regression (1) is still insignificant with a *p*-value of 0.804. The coefficients on the unscheduled grant (0,1) variable in Table VI are significant with *p*-values of 0.006, 0.001, 0.005, and 0.005 in regressions (1), (2), (3), and (4), respectively. (c) Raw return: The coefficient on the unscheduled grant (0,1) variable in Table III Panel B regression (1) is insignificant with a *p*-value of 0.981. The coefficients on the unscheduled grant (0,1) variable in Table VI are significant with *p*-values of 0.003, 0.001, 0.003, and 0.004 in regressions (1), (2), (3), and (4), respectively. (d) Fama-French three factor model: The coefficient on the unscheduled grant (0,1) variable in Table III Panel B regression (1) is insignificant with a *p*-value of 0.895. The coefficients on the unscheduled grant (0,1) variable in Table VI are significant with *p*-values of 0.058, 0.007, 0.026, and 0.020 in regressions (1), (2), (3), and (4), respectively.

case as in Lie (2005), we replicate our tests with a window of just one day deviation from the one year anniversary of a prior grant. This criterion increases the number of target firms that grant unscheduled options during negotiation to 120. All results continue to hold under this classification scheme.

E. Alternative Benchmarks

Our research design evaluates all stock options granted to CEOs of target firms once negotiations with their eventual acquirers are underway. Our benchmark or control sample consists of target firms that issue scheduled options during the merger negotiation period. Therefore, our analysis does not consider target firms that do not compensate their CEOs with stock options or where the options are granted prior to the start of merger negotiations. These choices are important because option grants to target CEOs during merger negotiations, particularly unscheduled options, are awarded while the target firm is in possession of the private information of its potential acquisition. Consequently, our research design identifies cases of option granting activity for which we can reasonably suspect either securities laws violations and/or ethical lapses. In contrast, option awards occurring prior to the start of merger negotiations, even unscheduled grants, are less likely to be reasonably construed as evidence of wrongdoing by the target firms.

The preceding discussion indicates that our research design does not consider several merger deals that occur during our sample period.[26] To address this issue, we compare the premiums accruing to the 110 targets that grant their CEOs unscheduled options during merger negotiations with the premiums accruing to (a) 110 matching targets that do not compensate their CEOs with stock options,[27] and (b) targets that grant options during the twelve months *prior* to the start of merger negotiations. Univariate comparisons indicate that takeover premiums earned by target firms are statistically similar across all three subsamples. For example, as reported in Panel A of Table X, the mean (median) premium earned by the 110 target firms that issue unscheduled awards during merger talks is 36.35% (32.04%). The premium earned by the 110 matching targets that do not use options to compensate their CEOs with options is 39.97% (30.85%). The mean (median) difference between these premiums is not statistically significant yielding a *t*-statistic

[26] Different studies in finance also limit the samples they study for reasons somewhat analogous to ours. See, for example, Aggarwal, Krigman, and Womack (2002) and Brav and Gompers (2003). These papers focus their analyses on different actions that occur during the IPO lockup period.

[27] We use the procedure outlined by Barber and Lyon (1996) to match target firms.

of 0.71 (Wilcoxon *Z*-statistic of 0.11). In Panel B of Table X we compare the premiums accruing to the 110 target firms that issue unscheduled awards during merger negotiations with the premium accruing to non-sample targets that grant options during the twelve months prior to the start of merger negotiations. The mean and median differences across these groups are not statistically significant. In Panel C of Table X we estimate the premiums earned by the entire sample of 620 target firms described in Section II. We sort these targets by whether they grant scheduled options (or no options at all) to their CEOs during the year preceding the merger announcement. We contrast the premiums for the three groups and report the findings in Panel C of Table X. For the most part, the results indicate that the mean and median premiums are not statistically different across the three groups. As with our previous findings, the results in Panels A, B, and C of Table X cast doubt on the notion that unscheduled options granted by target firms to their CEOs during the merger negotiation period induce these executives to obtain negotiate premiums.

F. Incidence of Unscheduled Options

Are unscheduled options more prevalent during acquisitions? To illuminate this issue we match our 196 firms that grant options during the private merger negotiations with similar firms that are not subject to an acquisition. The matching sample is assembled following Barber and Lyon (1996). Matching non-target firms grant options during one year before the acquisition announcement date of the sample target firms. We recall that 110 targets or 56% of our sample targets grant unscheduled grants. In contrast, for our matching non-targets, we find 86 matching non-targets with unscheduled grants (44%). When we change the option granting period from one year to 6 months, we find that only 56 matching non-targets or 38% issue unscheduled grants. The incidence of unscheduled grants is statistically lower in non-targets than in targets. The Z-statistic for the difference in the proportion of unscheduled grants between two samples of targets and matching non-targets is 2.38.[28]

[28] We estimate the Z-statistic as follows.

$$z = \frac{(P_1 - P_2) - 0}{\sqrt{\frac{PQ}{n_1} + \frac{PQ}{n_2}}} = \frac{P_1 - P_2}{\sqrt{PQ\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

G. Termination Fees

In Panel D of Table X, we evaluate the termination fees for targets and acquirers in our sample sorted by the targets' classification of option grants. Targets with unscheduled grants exhibit mean (median) termination fees of 163 million dollars (40.75) while those for targets with scheduled grants are 139.18 million dollars (45.00). In contrast, the mean (median) termination fee for acquirers related to unscheduled grants is 218.16 million dollars (84.50) and that related to acquirers with scheduled grants is 258.01 million dollars (217.5). Mean (median) termination fees related to target firms are not statistically different while only the median fee related to acquirers that buy targets that issue scheduled grant is larger than the termination fees paid by acquirers that buy targets that issue unscheduled grants. The results related to the termination fees in our sample firms do not suggest that termination fees are put in place to reinforce the rent extraction, incentive alignment, or compensation relief motives of target firms that issue unscheduled options to their CEOs during the merger negotiation period.

H. Deal Attitude

We test whether deals involving targets that grant unscheduled options during merger negotiations are less likely to be hostile. We obtain the attitude classification from SDC and run a logit regression similar to that in Schwert (2000) in which the dependent variable is equal to one if the deal is characterized as hostile and is zero otherwise. The key independent variable is a dummy that indicates whether the target grants unscheduled options during the negotiation period. We report coefficient estimates for the logit model in Panel E of Table X. As in Schwert (2000), firm size, which we proxy with the natural logarithm of assets, is positive and significant. The coefficient for the unscheduled grant indicator is negative suggesting that when targets award options during the private merger negotiations deals are more likely to be friendly. However, the *p*-value associated with this variable is 0.162 indicating that the estimate is not statistically significant at conventional levels.

I. Acquirer Returns

We estimate acquirer returns for the publicly traded buyers in our sample. We sort deals by whether the target grants scheduled or unscheduled options to its CEO during the merger negotiation period. Mean (median) acquirer returns related to unscheduled grants appear less (more) negative at -2.3% (-2.37%) than

those related to scheduled grants -2.85% (-1.82%). However differences between mean (median) returns fail to attain statistical significance at conventional levels. The acquirer returns we estimate do not suggest that options granted to target firms affect the returns that their buyers earn.

VI. Conclusions

We study a sample of 196 acquisitions during 1999-2006 in which target firms grant their CEOs stock options while their own private merger negotiation is underway. The null hypothesis is that these options are regular or scheduled awards that firms often grant once a year. However, we find that 110 targets in our sample issue at least one unscheduled or non-periodic option award to their CEOs during the merger negotiation period. To better understand the unscheduled option granting activity by these targets, we study three hypotheses to explain the timing of these awards.

The compensation relief hypothesis predicts that unscheduled awards to target CEOs during the negotiation period are more likely to occur when CEOs expect large compensation losses once their firms are sold. Our empirical tests show that this is indeed the case. Results indicate that an increase of 10 million dollars in expected lost compensation raises the probability of CEOs receiving out-of-cycle stock option grants by almost 10 percent. Moreover, we also find an inverse association between the size of the golden parachute held by target CEOs and the probability that these executive receive unscheduled option grants during merger negotiations.

The incentive alignment hypothesis posits that the unscheduled awards that many target CEOs receive during the private negotiation period will motivate these executives to negotiate more forcefully on behalf of their shareholders in order to obtain higher offers for their firms. Our tests show that the premiums paid for targets that issue unscheduled awards are statistically indistinguishable from the premiums paid by targets that issue scheduled options. In addition, we also find that target CEOs who receive unscheduled options do not appear to be trading higher premiums for a future job in the combined firm. We find these executives less likely to be employed by the combined firm once the acquisition completes.

The rent extraction hypothesis proposes that unscheduled options to target CEOs during merger private negotiations provide a vehicle to expropriate target shareholders. We find that unscheduled option awards

have a non-trivial effect on the wealth of the target CEOs that receive them. The estimations herein indicate that the average effective premium realized by target CEOs that receive unscheduled options is 56.71 percent. This premium exceeds the average takeover premium of 36.35 percent the shareholders of the same target firms realize. Moreover, we show that the price pattern of these unscheduled awards conforms to the alleged backdating of stock options documented by Lie (2005) and Heron and Lie (2007). Indeed, we find that the stock return of targets that issue the out-of-cycle awards during acquisition negotiations traces a V-shaped path which is centered at the inception of these awards. As in Heron and Lie (2007), we also find better post-option-issuance performance for the firms that grant these awards and report them late. We also show that deals involving targets that issue unscheduled options during negotiations, particularly those in which the grants are filed late, are more likely to be completed. The results related to unscheduled grants support the view that grant dates are systematically set to benefit CEOs. Such good timing allows managers to reap profits that are difficult for shareholders to detect. Therefore, the careful timing of option grants potentially enables CEOs to extract additional compensation from target firms that may significantly increase their total compensation beyond what shareholders would approve.

The evidence related to the apparent backdating of unscheduled option awards, to the favorable timing of these awards after SOX, and to the dissimilar fate of target CEOs receiving unscheduled grants and their own shareholders appears to support the rent extraction hypothesis. Nonetheless, absent any ethical or legal issues, issuing target CEOs unscheduled options during merger talks might be consistent with the incentive alignment hypothesis if such options induce target CEOs to approve deals that target firms really need. Irrespective of which hypothesis the results herein support, our findings have important public policy implications.

First, because option grants do not constitute a purchase under the 1934 Securities Act, by issuing unscheduled option grants to their CEOs while their eventual acquisition negotiation is in progress, targets in our sample do not infringe insider trading laws. Moreover, a recent amendment of Rule 14d-10 of the 1934 SEC Securities Act now allows the compensation committee of a target's board of directors to approve employment compensation, severance or other employee benefit arrangement for its executives

during a tender offer negotiation. Given this amendment, it also appears that these targets are also not in violation of the statute which calls for equal treatment of all shareholders during a merger.

Second, Section 403 of SOX requires public company officers and directors to report their receipt of stock options within two days of the grant. This requirement may explain our finding that the apparent backdating of unscheduled awards to target CEOs during merger negotiations declines following the promulgation of the Act. Nonetheless, we also find that, even after SOX, many CEOs realize healthy exercise premiums due to unscheduled options granted during non-public merger talks. These exercise premiums are significantly larger than the takeover premiums target shareholders realize. In addition, we show that after the passing of SOX, a one week increase in the length of merger negotiations increases the payout target CEOs earn due to unscheduled awards by about 98,000 dollars. This result suggests that, after SOX passes, targets favorably time option awards for the benefit of their CEOs and still comply with the reporting requirements in SOX. These findings indicate that SOX may have curtailed the targets' ability to backdate stock option awards but not their ability to favorably time these awards during private merger negotiations. Given these results, it is possible that further regulation, aimed at increasing disclosure requirements during mergers, will discourage shareholder expropriation.

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Table I
Sample description

This table describes our sample which consists of 196 acquisitions announced during 1999-2006 and tracked in the Securities Data Company's (SDC) merger and acquisition database. For selecting the sample, we require that target firms have stock market, accounting, governance and option compensation data available from the Center for Research in Security Prices (CRSP), Compustat, Investor Responsibility Research Center (IRRC), and Thomson Financial's Insider Filing database, respectively. We also require that targets grant options during the period from the initiation date to the merger public announcement date. As in Boone and Mulherin (2007), the initiation date is the beginning of the private takeover process, obtained by reading different proxy forms filed with the Securities and Exchange Commission (SEC) which provide the deal's history and background. In Panel A, we use the Fama French (1997) 48-industry classification to show the industrial and temporal distribution of 196 the targets. In Panel B, deal status, mode of acquisition, method of payment, deal attitude, and deal value are obtained from SDC. Information on the sale procedure and the deal initiator is obtained from reading the merger background filed with the SEC. As in Boone and Mulherin (2007), "auction" refers to cases in which the selling firm contacts multiple potential buyers while "negotiation" focuses on a single buyer. Initiator is the party that first contacts the other party in the sale process. Same industry deals occur if both the target and the acquirer belong to the same Fama and French (1997) industrial group. In Panel C, all financial variables are measured at the end of the fiscal year before the merger public announcement date. Leverage equals the book value of debt divided by the sum of book value of debt and market value of equity. The market-to-book ratio is defined as total assets minus book equity plus market equity divided by total assets. ROA is operating income divided by the average of beginning- and ending-period book value of total assets.

Panel A: Industrial and temporal distribution for targets

	1999	2000	2001	2002	2003	2004	2005	2006	Total	Pct
Entertainment	0	0	1	0	0	1	0	0	2	1.02
Printing and Publishing	0	1	0	0	0	0	0	2	3	1.53
Consumer Goods	1	0	1	1	0	0	1	0	4	2.04
Apparel	0	0	0	0	0	0	2	0	2	1.02
Healthcare	0	0	0	0	0	0	0	1	1	0.51
Medical Equipment	0	2	0	0	0	1	0	0	3	1.53
Pharmaceutical Products	1	3	1	1	2	1	2	2	13	6.63
Chemicals	2	0	0	1	0	1	0	0	4	2.04
Rubber and Plastic Products	1	0	0	0	0	0	0	0	1	0.51
Construction Materials	0	1	0	0	0	0	1	0	2	1.02
Construction	0	1	1	0	0	0	0	0	2	1.02
Steel work	2	1	0	0	0	1	0	0	4	2.04
Food Products	0	0	1	0	0	1	0	0	2	1.02
Machinery	2	1	1	1	0	2	1	0	8	4.08
Automobiles and Trucks	0	1	0	0	0	0	0	1	2	1.02
Aircraft	2	0	0	0	0	0	0	0	2	1.02
Shipbuilding, Railroad Equipment	1	1	0	0	0	0	0	0	2	1.02
Non-Metallic and Industrial Mining	0	0	0	0	0	0	0	1	1	0.51
Petroleum and Natural Gas	1	3	3	1	0	0	1	0	9	4.59
Utilities	4	4	1	1	0	0	1	0	11	5.61
Communication	1	0	1	1	0	3	0	1	7	3.57
Personal Services	1	0	0	0	0	0	0	1	2	1.02
Business Services	5	4	3	3	2	2	6	5	30	15.31
Computer Hardware	2	1	0	0	1	0	2	2	8	4.08
Computer Software	0	2	0	1	0	2	1	2	8	4.08
Measuring and Control Equipment	1	0	0	0	0	0	0	0	1	0.51
Business Supplies	1	2	0	0	1	0	0	0	4	2.04
Transportation	3	1	0	0	0	0	0	1	5	2.55
Wholesale	1	1	0	1	0	0	1	0	4	2.04
Retail	2	1	0	2	4	1	1	2	13	6.63
Restaurants, Hotels, Motels	0	1	1	0	0	0	0	0	2	1.02
Banking	2	3	2	0	1	6	1	2	17	8.67
Insurance	3	3	0	0	4	1	1	0	12	6.12
Trading	0	2	0	0	0	0	1	2	5	2.55
Total	39	40	17	14	15	23	23	25	196	100
Pct	19.90	20.41	8.67	7.14	7.65	11.73	11.73	12.76	100	

Panel B: Deal characteristics

Deal status	Complete	Withdrawn			Total
	184	12			196
Mode of acquisition	Merger	Tender Offer			Total
	160	36			196
Method of payment	Stock	Cash	Mixed	Unknown	Total
	44	92	44	16	196
Deal attitude	Friendly	Hostile	Ambiguous		Total
	186	8	2		196
Sale procedure	Auction	Negotiation	Unknown		Total
	64	127	5		196
Initiator	Target	Acquirer	Unknown		Total
	76	105	15		196
Same industry	Yes	No			Total
	127	69			196

Panel C: Target characteristics

	Mean	Median
Market value ($ billion)	3.780	1.073
Market-to-book ratio	1.715	1.398
Leverage	0.253	0.241
ROA	0.073	0.064
Deal value ($ billion)	4.076	1.472

Table II
Option grants during negotiation: scheduled vs. unscheduled awards

The sample consists of 196 acquisitions announced during 1999-2006 described in Table I. The dependent variable in the logit models reported in this table equals one if the target firm grants unscheduled option awards to its CEO during the private negotiation period running from the initiation date to the merger public announcement. We classify a grant as a scheduled option award if it is dated within 14 days of the one-year anniversary of a prior grant and unscheduled otherwise. Prior year market adjusted return is the cumulative abnormal return (*CAR*) during the one year window before the initiation date, using the CRSP value-weighted return as the benchmark. New CEO (0,1) equals one if the CEO is appointed within a year before the option grant date. Equity ownership is the percentage of stock and options owned by the CEO. Lost compensation is the estimated present value of the CEO's lost compensation when his firm is sold after deducting all expected parachute payments and special bonuses. The overconfidence (0,1) variable is defined as in Malmendier and Tate (2005) long-holder measure and follows Hall and Liebman's (1998) option classification procedure. It equals one if the target firm's CEO owns options at the beginning of the last year of the options' life that are at least 40% in the money. Change in control provision (0,1) equals one if a CEO has this provision in his compensation agreement. G index is constructed by adding 24 antitakeover provisions tracked by IRRC as in Gompers, Ishii, and Metrick (2003). The busy board (0,1) variable equals one if at least 50% of outside directors hold three or more directorships. Board size is the number of directors on the board. Board ownership and institutional ownership are the percentage of common stock owned by each group, respectively. Percent of independent directors is the number of independent directors divided by board size. Post-SOX deal (0,1) equals one if the deal is announced after the Sarbanes-Oxley Act is promulgated (8/29/2002). Leverage equals the book value of debt divided by the sum of book value of debt and market value of equity. Other variables are self-explanatory or defined elsewhere. All variables are measured at the end of the fiscal year before the merger public announcement date. We report *p*-values in parentheses. The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Probability of granting unscheduled options				
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Intercept	-31.754**	-30.680**	-26.992*	-34.646**	-30.070**
	(0.026)	(0.034)	(0.060)	(0.022)	(0.048)
Firm characteristics					
Log(Assets)	-0.184	-0.144	-0.188*	-0.268*	-0.288**
	(0.178)	(0.203)	(0.098)	(0.071)	(0.050)
Market-to-book ratio	0.268	0.233	0.204	0.287	0.226
	(0.116)	(0.185)	(0.246)	(0.109)	(0.209)
Leverage	-2.162***	-2.639***	-3.092***	-2.707***	-3.178***
	(0.007)	(0.003)	(0.001)	(0.003)	(0.001)
Prior year market adjusted return	-0.115	-0.280	-0.186	-0.200	-0.081
	(0.744)	(0.437)	(0.603)	(0.586)	(0.825)
CEO characteristics					
New CEO (0,1)	1.122	0.810	1.249	1.040	1.505*
	(0.133)	(0.292)	(0.114)	(0.192)	(0.070)
CEO is Chairman (0,1)	0.224	0.487	0.349	0.405	0.308
	(0.583)	(0.239)	(0.386)	(0.360)	(0.470)
Log(Age)	7.530**	7.286**	6.398*	8.038**	7.065*
	(0.027)	(0.034)	(0.061)	(0.025)	(0.051)
Years as CEO	0.182	-0.057	0.079	0.060	0.182
	(0.445)	(0.814)	(0.734)	(0.816)	(0.461)
Equity ownership (%)	-0.006	-0.004	-0.005	-0.005	-0.006
	(0.524)	(0.685)	(0.599)	(0.625)	(0.523)
Lost compensation / Total compensation	0.345**	0.320**	0.302**	0.361**	0.338**
	(0.017)	(0.027)	(0.036)	(0.017)	(0.026)
Option compensation / Total compensation	-1.462**	-1.515**	-1.234*	-2.038***	-1.661**
	(0.033)	(0.030)	(0.074)	(0.007)	(0.022)
Overconfidence (0,1)	-0.590*	-0.457	-0.592*	-0.535	-0.653*
	(0.093)	(0.206)	(0.092)	(0.151)	(0.074)

Change in control provision (0,1)	0.685**	0.569*	0.653**	0.741**	0.864**
	(0.040)	(0.059)	(0.028)	(0.041)	(0.016)
Governance characteristics					
G index	-0.114			-0.133	-0.161*
	(0.154)			(0.120)	(0.063)
Busy board (0,1)	1.178***			1.161**	1.096**
	(0.007)			(0.014)	(0.015)
Log(Board size)	0.353			1.013	0.594
	(0.611)			(0.187)	(0.415)
Board ownership (%)	-0.005			-0.004	-0.003
	(0.649)			(0.731)	(0.783)
Percentage of independent directors	-0.003			0.045	0.634
	(0.998)			(0.969)	(0.584)
Institutional ownership (%)	0.002			0.005	0.004
	(0.846)			(0.681)	(0.737)
Deal characteristics					
Target initiated deal (0,1)		1.131***		1.221***	
		(0.003)		(0.002)	
Privately negotiated deal (0,1)			0.687*		0.802**
			(0.065)		(0.042)
Post-SOX deal (0,1)		-3.890***	-4.352***	-4.058***	-4.394***
		(0.006)	(0.002)	(0.007)	(0.002)
Year fixed effects	Yes	Yes	Yes	Yes	Yes
N	196	196	196	196	196
Pr>χ^2	0.022	<0.001	0.002	<0.001	0.001
Adjusted R^2	0.275	0.325	0.293	0.375	0.346

Table III
Unscheduled grants and acquisition premiums

We analyze 196 acquisition premiums related to deals that are announced during 1999-2006 which are described in Table I. Panel A provides mean [median] premiums sorted by whether the target firm issues unscheduled grants. We use two proxies to measure acquisition premiums: the *CAR* [AD-20, AD+1] and the four-week premium. *CAR* [AD-20, AD+1] is the cumulative abnormal return during the window from day AD-20 to day AD+1 where AD is the merger public announcement date, calculated from the market model using the CRSP value-weighted return as the benchmark with an estimation period of one year prior to the beginning of the above window. Four week premium is the acquisition premium as reported by SDC, calculated as the offer price divided by the target's stock price four weeks before the merger public announcement date. SDC's premium calculations assume that the deal is completed according to the terms announced in the merger agreement. In Panel B, the dependent variables are *CAR* [AD-20, AD+1] in regressions (1) and (2) and SDC's four-week premium in regression (3). The unscheduled grant (0,1) variable is "1" if the target firm grants its CEO unscheduled options during merger negotiations. Golden parachute is based on the information from the target firm's last proxy statement filed before the transaction. Parachute augmentation and additional bonus represent special merger-related payments awarded to CEOs at the time of the acquisition as in Hartzell, Ofek, and Yermack (2004). Similar to those authors, we also control for the CEO's expected years to retirement (measured as the greater of zero or 65 minus age), assuming that CEOs near the end of their careers will demand lower personal benefits to agree to the sale of their firms. Market value of CEO equity holding is measured as of 20 days prior to the merger public announcement date. In Panel B, we report *p*-values in parentheses. The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Mean [Median] premiums

	All targets (*N*=196)	Targets with unscheduled grants (*N*=110)	Targets with only scheduled grants (*N*=86)	(*t*- statistic) [Wilcoxon *Z*] for differences
CAR [AD-20,AD+1] (%)	22.70	23.29	21.94	(0.44)
	[20.55]	[21.01]	[19.49]	[0.44]
Four-week premium (%)	34.81	36.35	32.84	(0.84)
	[32.26]	[32.04]	[32.26]	[-0.47]

Panel B: Multivariate regressions

	CAR [AD-20,AD+1]		Four-week premium
	(1)	**(2)**	**(3)**
Intercept	29.183**	27.218**	17.473
	(0.016)	(0.026)	(0.322)
Unscheduled grant (0,1)	0.005	0.003	0.019
	(0.859)	(0.902)	(0.648)
Golden parachute (0,1)	-0.036	-0.037	-0.047
	(0.481)	(0.463)	(0.522)
Parachute augmentation (0,1)	-0.021	-0.030	-0.097
	(0.726)	(0.621)	(0.272)
Additional bonus (0,1)	-0.001	0.004	0.025
	(0.984)	(0.900)	(0.617)
Expected years to retirement	-0.004	-0.001	-0.059
	(0.912)	(0.985)	(0.289)
CEO equity ownership (%)	0.001	0.001	0.001
	(0.463)	(0.438)	(0.274)
Log(Market value of CEO equity holding)	-0.003	-0.006	-0.031*
	(0.792)	(0.594)	(0.058)
Prior year excess return	0.085***	0.058*	0.066
	(0.002)	(0.092)	(0.184)
ROA	-0.097	-0.095	0.071
	(0.609)	(0.617)	(0.797)
Cash payment (0,1)	0.084**	0.082**	0.007
	(0.011)	(0.013)	(0.875)
Tender offer (0,1)	0.171***	0.176***	0.267***
	(0.000)	(0.000)	(0.000)
Hostile deal (0,1)	-0.090	-0.090	0.112
	(0.154)	(0.151)	(0.222)
Same industry (0,1)	0.013	0.015	-0.007
	(0.679)	(0.634)	(0.872)
Heckman self-selectivity		-0.112	0.005
		(0.186)	(0.969)
Year fixed effects	Yes	Yes	Yes
Adjusted R^2	0.220	0.223	0.154

Table IV
Unscheduled grants and employment for target CEOs in the combined firm

In the logit models reported in this table, we analyze 131 completed acquisitions from the original sample of 196 deals announced during 1999-2006 described in Table I in which the acquirer is tracked by IRRC. The dependent variable equals one if the target CEO already holds or obtains either a directorship position or an executive appointment such as CEO of the acquirer or a subsidiary, chief financial officer, chief operating officer, chairman, vice-chairman, president, or vice-president in the combined firm after the deal completion. Prior year operating performance is the industry-adjusted return on assets during the fiscal year before the merger public announcement date. We report *p*-values in parentheses. The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent variable =1 if the target CEO obtains employment in the combined firm after deal completion		
	(1)	**(2)**
Intercept	0.481	1.445
	(0.688)	(0.407)
Unscheduled grant (0,1)	-0.934**	-0.952**
	(0.045)	(0.043)
Target CEO characteristics		
Number of CEO outside directorships	0.244	0.208
	(0.297)	(0.380)
CEO tenure	0.265	0.251
	(0.322)	(0.347)
CEO of bank (0,1)	2.590**	2.489**
	(0.015)	(0.020)
Prior year operating performance	3.814	3.334
	(0.165)	(0.235)
Acquirer characteristics		
G index	-0.015	-0.006
	(0.896)	(0.955)
Board size	-3.092***	-3.106***
	(0.003)	(0.003)
Classified board (0,1)	0.370	0.398
	(0.477)	(0.449)
Deal characteristics		
Cash payment (0,1)	-1.486**	-1.475**
	(0.014)	(0.015)
Tender offer (0,1)	-0.314	-0.322
	(0.714)	(0.709)
Hostile deal (0,1)	-1.525	-1.540
	(0.227)	(0.222)
Same industry (0,1)	0.114	0.033
	(0.831)	(0.952)
Acquisition premium	-0.010	-0.010
	(0.252)	(0.240)
Heckman self-selectivity		-0.757
		(0.444)
Year fixed effects	Yes	Yes
N	131	131
$Pr>\chi^2$	0.002	0.002

Table V
Mean [Median] shareholder returns around option grants

In this table we report abnormal returns around option grants to target CEOs in our sample. The sample includes 278 option grants during merger negotiation awarded to CEOs of the 196 sample targets described in Table I. We classify a grant as a scheduled option award if it is dated within 14 days of the one-year anniversary of a prior grant and unscheduled otherwise. *CAR* [-29,0] is the cumulative abnormal return for the 30-day period prior to the inception of the option grant. *CAR* [1,30] is the cumulative abnormal return for the 30-day period beginning the day after the inception of the option grant. Abnormal returns are estimated using the market model in which the estimation period is the year ending 50 days before the grant date. The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	All grants (*N*=278)	Unscheduled grants (*N*=151)	Scheduled grants (*N*=127)	(*t*- statistic) [Wilcoxon *Z*] for differences
CAR [-29,0] (%)	-0.32	-0.13	-0.56	(-0.60)
	[-1.41]	[-1.32]	[-1.95]	[0.26]
CAR [1,30] (%)	2.58	4.66	0.18	(2.25)**
	[2.38]	[3.60]	[0.04]	[2.66]***
p-values for the (mean) and				
[median] differences	(0.035)**	(0.009)***	(0.912)	
between two *CAR*s	[0.038]**	[0.008]***	[0.870]	

Table VI
Regression model of cumulative returns following option grants

This table reports the estimates of fixed-effects models in which the dependent variable is the abnormal return accruing to our sample targets after issuing stock options to their CEOs. Regression (1) includes 278 option grants during merger negotiation awarded by our 196 sample targets. Regression (2) excludes 99 option grants from regression (1) that are awarded after SOX. Regressions (3) and (4) exclude 44 option grants from regression (2) that are awarded during the 50-day period prior to the merger public announcement. Regression (5) excludes 179 option grants from regression (1) that are awarded before SOX. Reporting lag is the number of business days between the option grant date and the SEC filing date. The rumored deal (0,1) variable equals one if the deal is rumored as reported in SDC. Regulated industry (0,1) equals one if the target firm belongs to a regulated industry such as railroads and utilities. The family firm target (0,1) indicator equals one if a family, a group of families, or a firm founder controls more than 20% of the outstanding equity of the target. We report *p*-values in parentheses. The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	CAR [1,30]				
	All grants	Grants awarded before SOX	Grants awarded before SOX and not during the 50-day period prior to the merger announcement date		Grants awarded after SOX
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Intercept	0.196*	0.057	0.160	-0.264	0.155
	(0.057)	(0.666)	(0.341)	(0.252)	(0.439)
Unscheduled grant (0,1)	0.049**	0.106***	0.111***	0.104**	0.005
	(0.032)	(0.001)	(0.009)	(0.010)	(0.858)
Log(Option value)	-0.012*	-0.002	-0.009	-0.002	-0.021**
	(0.073)	(0.787)	(0.395)	(0.834)	(0.031)
Reporting lag (Days x 10^{-2})	0.037***	0.039***	0.049***	0.051***	-0.021
	(0.003)	(0.004)	(0.004)	(0.002)	(0.809)
Target is a family firm (0,1)	-0.005	-0.051	-0.046	-0.025	0.092
	(0.872)	(0.232)	(0.380)	(0.614)	(0.129)
Rumored deal (0,1)	0.092**	0.087	0.112	0.044	0.044
	(0.045)	(0.213)	(0.227)	(0.632)	(0.473)
Cash payment (0,1)	-0.015	-0.003	-0.036	0.005	0.000
	(0.589)	(0.943)	(0.545)	(0.936)	(0.999)
Tender offer (0,1)	0.013	0.020	-0.011	-0.051	0.009
	(0.713)	(0.650)	(0.854)	(0.381)	(0.895)
Hostile deal (0,1)	0.021	-0.052	-0.027	-0.044	0.046
	(0.682)	(0.502)	(0.773)	(0.624)	(0.474)
Regulated industry (0,1)	-0.134***	-0.156***	-0.243***	-0.264***	0.005
	(0.002)	(0.003)	(0.002)	(0.001)	(0.947)
Same industry (0,1)	-0.053**	-0.067*	-0.096**	-0.061	-0.041
	(0.043)	(0.067)	(0.047)	(0.199)	(0.233)
Acquisition premium	-0.091	-0.110			-0.086
	(0.126)	(0.153)			(0.363)
Heckman self-selectivity				0.264**	
				(0.011)	
Year fixed effects	Yes	Yes	Yes	Yes	Yes
N	278	179	135	135	99
Adjusted R^2	0.197	0.202	0.209	0.276	0.138

Table VII
Realized premiums by CEOs and shareholders of target firms

This table reports realized premiums by CEOs and shareholders of target firms. The sample consists of 196 mergers and acquisitions announced during 1999-2006 described in Table I. The CEO exercise premium is calculated as the offer price divided by the average option exercise price. The acquisition premium is the four week premium reported by SDC. Panel A provides these premiums for all targets and sorted by whether the target issues unscheduled options to their CEOs. Panel B reports premiums accruing to target CEOs and target shareholders prior to the promulgation of the Sarbanes-Oxley Act in 2002 (SOX). Panel C reports the premiums after SOX passes. The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: All targets

	All targets (*N*=196)	Targets with unscheduled grants (*N*=110)	Targets with only scheduled grants (*N*=86)
Exercise premium (%)	47.75	56.71	36.30
	[38.25]	[43.49]	[30.15]
Acquisition premium (%)	34.81	36.35	32.84
	[32.26]	[32.04]	[32.26]
p-values for the (mean) and			
[median] differences	(0.001)***	(0.000)***	(0.453)
between two premiums	[0.007]***	[0.001]***	[0.903]

Panel B: Targets that grant options before SOX

	All targets (*N*=111)	Targets with unscheduled grants (*N*=66)	Targets with only scheduled grants (*N*=45)
Exercise premium (%)	52.15	56.98	45.05
	[44.40]	[44.33]	[45.96]
Acquisition premium (%)	40.76	40.73	40.81
	[40.35]	[39.81]	[40.35]
p-values for the (mean) and			
[median] differences	(0.008)***	(0.006)***	(0.489)
between two premiums	[0.019]**	[0.018]**	[0.432]

Panel C: Targets that grant options after SOX

	All targets (*N*=85)	Targets with unscheduled grants (*N*=44)	Targets with only scheduled grants (*N*=41)
Exercise premium (%)	42.02	56.31	26.69
	[25.79]	[39.14]	[19.68]
Acquisition premium (%)	27.14	29.99	24.08
	[27.56]	[27.59]	[25.23]
p-values for the (mean) and			
[median] differences	(0.025)**	(0.017)**	(0.712)
between two premiums	[0.219]	[0.021]**	[0.251]

Table VIII
Option timing and profits to target CEOs

In this table we report coefficient estimates of the profits accruing to target CEOs. The sample consists of 196 acquisitions announced during 1999-2006 described in Table I. The dependent variable in the tobit models is the dollar amount related to the profit target CEOs earn from option awards granted during the merger negotiation period. Length of negotiations is the day count running from the initiation date to the merger public announcement. We classify a grant as a scheduled option award if it is dated within 14 days of the one-year anniversary of a prior grant and unscheduled otherwise. The unscheduled grant (0,1) variable is "1" is the target firm grants its CEO unscheduled options during merger negotiations. Post-SOX deal (0,1) equals "1" if the deal is announced after the Sarbanes-Oxley Act is promulgated (8/29/2002). The target's prior year return volatility is the standard deviation of the target's stock return during the year prior to the merger. Other variables are self-explanatory or defined elsewhere. All variables are measured at the end of the fiscal year before the merger public announcement date. We report *p*-values in parentheses. The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Intercept	5.596	7.255*	7.782*	7.961*
	(0.175)	(0.078)	(0.062)	(0.055)
Length of negotiation (days)	0.008***			0.004
	(0.003)			(0.183)
Unscheduled grant (0,1)		2.667*		0.062
		(0.060)		(0.970)
Post-SOX deal (0,1)			2.933	-4.480
			(0.616)	(0.432)
Length of negotiation x Unscheduled grant (0,1) x Post-SOX (0,1)				0.010**
				(0.013)
Rumored deal (0,1)	4.333	4.450	4.324	4.411*
	(0.106)	(0.101)	(0.116)	(0.090)
Target's prior year return volatility	-36.377	-61.296	-43.581	-59.954
	(0.399)	(0.165)	(0.328)	(0.164)
Target is a family firm (0,1)	1.643	2.110	2.087	1.960
	(0.419)	(0.304)	(0.318)	(0.321)
Cash payment (0,1)	-2.593*	-2.800*	-2.806*	-2.726*
	(0.070)	(0.053)	(0.056)	(0.051)
Hostile deal (0,1)	-3.637	-1.822	-2.034	-3.222
	(0.236)	(0.551)	(0.511)	(0.281)
Same industry (0,1)	-1.415	-1.281	-1.083	-1.564
	(0.349)	(0.401)	(0.483)	(0.287)
Heckman self-selectivity	-2.786	-1.054	-1.113	-2.408
	(0.393)	(0.746)	(0.736)	(0.446)
Value of the interaction term and the length of negotiation				0.014***
p-value of *F*-test for joint significance				(<0.001)
Year fixed effect	Yes	Yes	Yes	Yes
N	196	196	196	196

Table IX
Unscheduled grants and deal completion

This table reports estimates on the probability of completion for merger deals in our sample. The sample consists of 196 mergers and acquisitions announced during 1999-2006 described in Table I. The dependent variable in the logit models equals one if the proposed merger is ultimately consummated. Target (Acquirer) termination fee provision (0,1) variable equals one if the target (acquirer) has a termination fee provision in the merger contract. Target lockup (0,1) variable equals one if the bidder is granted an option to purchase shares in the target. Prior bidding (0,1) variable equals one if the deal has a competing offer or follows a prior bid within 365 days. In model (3), we run the same regression in a subsample of deals in which the targets delay the reporting of option grants by two or more days. We report *p*-values in parentheses. The symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable =1 if the deal is completed		
	(1)	**(2)**	**(3)**
Intercept	-0.350	3.346	12.495*
	(0.787)	(0.194)	(0.051)
Unscheduled grant (0,1)	2.252**	2.433**	8.263**
	(0.040)	(0.034)	(0.043)
Deal includes target termination fee provision (0,1)	2.755**	3.832***	7.272**
	(0.017)	(0.009)	(0.033)
Deal includes acquirer termination fee provision (0,1)	-0.322	-0.100	-6.457*
	(0.780)	(0.937)	(0.057)
Deal includes a lockup of target shares (0,1)	11.502	11.317	14.201
	(0.972)	(0.972)	(0.960)
Cash payment (0,1)	-0.387	0.199	0.868
	(0.689)	(0.854)	(0.673)
Tender offer (0,1)	1.277	2.699	9.415
	(0.408)	(0.229)	(0.910)
Hostile deal (0,1)	0.173	0.865	0.451
	(0.920)	(0.653)	(0.934)
Deal has a prior bidding (0,1)	-2.437**	-2.813**	-5.643*
	(0.037)	(0.027)	(0.054)
Target in regulated industry (0,1)	-2.476*	-2.884*	-3.303
	(0.092)	(0.083)	(0.185)
Same industry (0,1)	0.117	0.311	2.708
	(0.909)	(0.781)	(0.247)
Family firm target (0,1)	12.990	16.891	11.719
	(0.890)	(0.847)	(0.897)
Acquisition premium (%)	4.291*	3.848	15.423*
	(0.088)	(0.159)	(0.059)
Heckman self-selectivity		-4.349	-14.479**
		(0.103)	(0.039)
Year fixed effects	Yes	Yes	Yes
N	196	196	124
$Pr>\chi^2$	0.001	<0.001	0.002

Table X
Robustness and additional tests

This table reports selected robustness and supplemental tests. In panels A, B, and C, we contrast takeover premiums accruing to different subsamples of targets. In panel D, we study whether the termination fees for targets in our sample vary by whether targets issue scheduled or unscheduled options to their CEOs while private merger negotiations are underway. Following Schwert (2000), in panel E, we estimate a logit regression in which the dependent variable is "1" if the merger is characterized as hostile and is "0" otherwise. The key independent variable is a (0,1) indicator for unscheduled options granted by targets to their CEOs during the merger negotiation period. All other variables in the regression are defined as in Schwert (2000). In all panels, the symbols *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Mean [Median] premiums using matching targets that do not compensate their CEOs with stock options

Sample targets with unscheduled grants (*N*=110)	Matching targets that do not compensate their CEOs with stock options (*N*=110)	(*t*- statistic) [Wilcoxon *Z*] for differences
36.35	39.97	(0.71)
[32.04]	[30.85]	[0.11]

Panel B: Mean [Median] premiums using non-sample targets that grant options during the twelve months prior to the start of merger negotiations

Sample targets with unscheduled grants (*N*=110)	Non-sample targets that grant options during the twelve months prior to the start of merger negotiations (*N*=99)	(*t*- statistic) [Wilcoxon *Z*] for differences
36.35	31.83	(1.00)
[32.04]	[28.42]	[1.31]

Panel C: Mean [Median] premiums for targets that use option compensation sorted by whether the targets grant unscheduled or scheduled options, or do not grant options during the period of one year before announcement date

Targets with unscheduled grants (*N*=207)	Targets with only scheduled grants (*N*=164)	Targets with no option grants (*N*=249)	(*t*- statistic) [Wilcoxon *Z*] for differences
36.19	32.97		(1.15)
[33.88]	[32.41]		[1.01]
36.19		32.62	(1.10)
[33.88]		[27.54]	[2.24]**

Panel D: Mean [Median] dollar amount of termination fees (in million US$)

	Targets with unscheduled grants (*N*=110)	Targets with only scheduled grants (*N*=86)	(t- statistic) [Wilcoxon Z] for differences
Target termination fee	163.51	139.18	0.51
	[40.75]	[45.00]	[0.79]
Acquirer termination fee	218.16	258.01	-0.37
	[84.50]	[217.50]	[1.63]

Panel E: Logistic regression of the probability of hostility

Variable	Intercept	Unscheduled grant	ROE	Sales growth	Liquidity	Leverage	M/B	P/E	Size
Coef.	-37.707	-3.193	-2.169	11.016	8.078	-2.104	0.203	0.003	1.804*
p-value	0.686	0.162	0.708	0.160	0.220	0.740	0.888	0.556	0.083

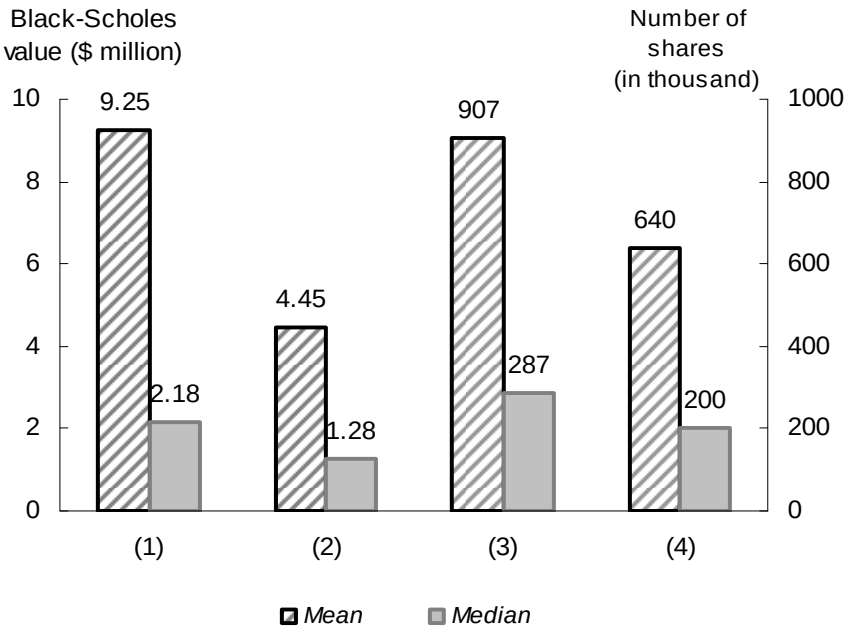

Figure 1: Characteristics of option grants during merger negotiation. Column (1) shows that on average targets grant total options valued at 9.25 million dollars. Column (3) shows that these awards consist of about 907,000 shares. On average, each grant is worth 4.45 million dollars (column 2) and consists of about 640,000 shares (column 4). These values are based on 278 option awards granted by our sample of 196 targets.

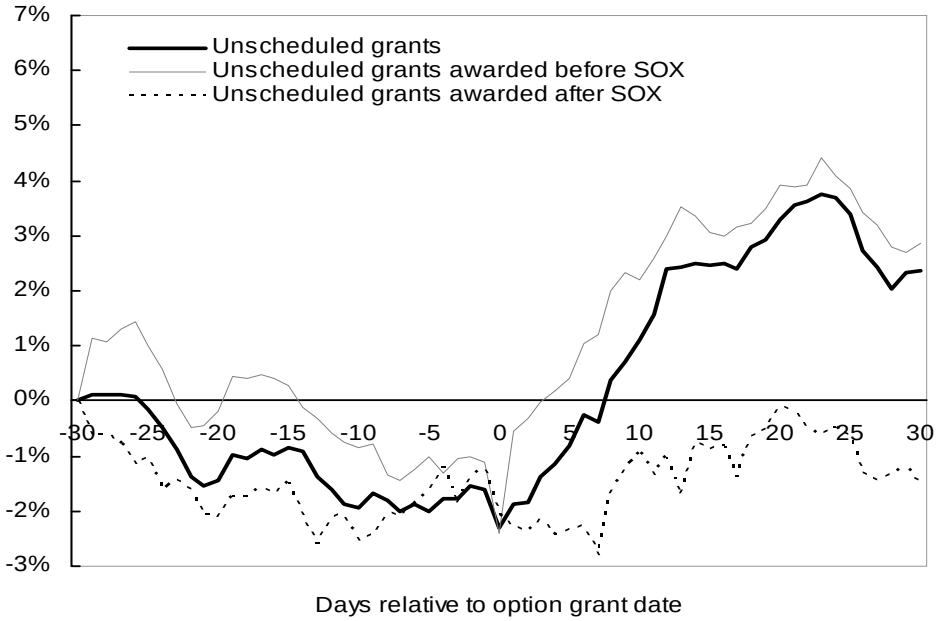

Figure 2: Shareholder returns around the option grant date. This graph shows the cumulative abnormal returns from 30 days before through 30 days after the issuance of unscheduled option grants to CEOs of the sample target firms. We classify a grant as a scheduled option award if it is dated within 14 days of the one-year anniversary of a prior grant and unscheduled otherwise. Abnormal returns are estimated using the market model in which the estimation period is the year ending 50 days before the grant date.

Appendix I

Table AI presents an example of unscheduled options granted to a target's CEO during the negotiation period. The target in question, Scientific-Atlanta (SA), granted its CEO, James F. McDonald, stock option awards while nonpublic merger negotiations with Cisco were underway. Table AI shows that from 2001 until 2005, Mr. McDonald's options, which he received once a year, were always issued during the second or third week of February. However, in 2005, Mr. McDonald received an unscheduled award. The unscheduled award, which is dated July 5, 2005, was issued after Scientific-Atlanta started preliminary merger talks (about six weeks earlier) with Cisco on May 18.[29] According to our calculations, the award will end up netting Mr. McDonald over 1.3 million dollars upon the deal's completion.[30] Figure A1 illustrates key dates related to SA's acquisition by Cisco.

Table AI
Option Awards to Scientific-Atlanta's CEO

This table provides information on the annual option awards received by Mr. James McDonald, CEO of Scientific-Atlanta during 2001-2005. All option data are from the Thomson database. The Black-Scholes value of the option awards, which is reported in U.S. dollars, is computed as described in the text.

Grant date	Week of the month	Expiration date	Filing date	Number of shares	Black-Scholes value of award
02/16/2001	Third	02/17/2011	04/10/2001	250,000	11,872,572
02/15/2002	Third	02/16/2012	03/11/2002	525,000	9,325,793
02/11/2003	Third	02/11/2013	02/13/2003	600,000	4,159,854
02/09/2004	Second	02/09/2014	02/11/2004	480,000	9,030,997
02/18/2005	Third	02/20/2015	02/23/2005	290,000	3,910,149
07/05/2005	Second	07/05/2015	07/07/2005	145,000	2,236,498

Figure A1: Stock Prices for Scientific-Atlanta. This figure graphs daily closing prices for Scientific-Atlanta from 5/18/2005 until 2/24/2006. These dates coincide with the initiation of merger talks between Scientific-Atlanta and Cisco and the date in which the deal between the two parties is completed, respectively.

[29] An excerpt detailing the merger transaction from Form DEFM14A filed by Scientific-Atlanta with the SEC on January 3, 2006 reads: "On May 18, 2005, Mr. McDonald met with Charles Giancarlo, Senior Vice President and Chief Development Officer of Cisco, in San Jose, California to discuss preliminarily a possible transaction between the two companies."

[30] The value of the unscheduled options is estimated as (43.00 – 33.87) x 145,000 = 1,323,850, where 33.87 is the options' exercise price, 43.00 is the per-share acquisition offer price paid by Cisco, and 145,000 is the number of shares in the award.