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The Economic Impact of Backdating of Executive Stock Options

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THE ECONOMIC IMPACT OF BACKDATING
OF EXECUTIVE STOCK OPTIONS†

M. P. Narayanan*
Cindy A. Schipani**
H. Nejat Seyhun***

This Article discusses the economic impact of legal, tax, disclosure, and incentive issues arising from the revelation of dating games with regard to executive option grant dates. It provides an estimate of the value loss incurred by shareholders of firms implicated in backdating and compares it to the potential gain that executives might have obtained through backdating. Using a sample of firms that have already been implicated in backdating, we find that the revelation of backdating results in an average loss to shareholders of about 7%. This translates to about $400 million per firm. By contrast, we estimate that the average potential gain from backdating to all executives in these firms is about $500,000 per firm annually. We suggest some remedies not only for backdating, but also for other dubious practices such as springloading.

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INTRODUCTION

The burgeoning compensation packages of top executives of U.S. companies have attracted considerable attention in the past few years. Most of the public attention has centered on compensation levels while academics have focused on the incentive effects of compensation. Shareholder activists have argued for years that compensation levels are high because top executives have captured the compensation process and that it is no longer an arms-length transaction between the board and the top executives. Although academics have been slower to consider this point of view, there has


2. See, e.g., Gray, supra note 1, at 55 (expressing the opinion from a Canadian perspective that executive compensation in the United States is excessively high); Kristof, supra note 1 (discussing the contribution of pensions to the compensation levels of executives); O’Hara, supra note 1 (providing specific examples of U.S. executives who are receiving high levels of compensation); Press Release, Sullivan, Cotter & Assoc., Total Compensation Up 7.2% According to 2006 Survey of Manager & Executive Compensation in Hospitals and Health Systems, (Aug. 3, 2006), http://www.sullivancotter.com/resources/news20060803.php (last visited Jan. 13, 2007) (focusing solely on the compensation data for executives in the health care industry).

3. See, e.g., Lucian A. Bebchuk & Jesse M. Fried, Executive Compensation at Fannie Mae: A Case Study of Perverse Incentives, Nonperformance Pay, and Camouflage, 30 J. CORP. L. 807, 808 (2005) (providing a specific analysis of Fannie Mae’s executive compensation arrangements that reveals how the system weakened managers’ incentives to enhance shareholder value); Qiang Cheng & Terry D. Warfield, Equity Incentives and Earnings Management, 80 ACCT. REV. 441, 441 (2005) (hypothesizing that managers with high equity incentives are more likely to engage in earnings management to increase the value of their shares to be sold); Eliezer M. Fich & Anil Shivdasani, The Impact of Stock-Option Compensation for Outside Directors on Firm Value, 78 J. BUS. L. 2229, 2230 (2005) (focusing on the effect of stock-option plans on the alignment of incentives of outside directors along with those of shareholders).

been a spate of research in recent years that provides evidence inconsistent with the arms-length model.  

In this Article, we discuss the implications of one form of executive capture of the compensation process, namely, the practice of backdating executive stock options. Evidence consistent with the practice of backdating was first identified in 2005 by Professor Lie and by Professors Narayanan and Seyhun. Although the media subsequently picked up the results of this research and started reporting on the practice, it became a full-fledged scandal when the Wall Street Journal published a report on its front page suggesting that executives of six companies might have backdated their options. Since then, there have been new revelations of backdating on a regular basis. As of this writing, over one hundred companies have been embroiled in backdating, with the Securities Exchange Commission ("SEC"), the Justice Department, the Internal Revenue Service ("IRS"), and several state attorneys general starting their own investigations. It has also triggered questions about the role of auditors in checking this practice.

Backdating is only one form of dating game that executives can play. Backdating occurs when the executive (with or without the knowledge of the board) designates as the options grant date some date before the date on

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5. Bebchuk has been at the forefront of academics that question the arms-length model and suggest that the compensation process has been captured by the executives being compensated (a theory known as the Power hypothesis). For a detailed critique of the arms-length model and a synthesis of the Power hypothesis, see Lucian Bebchuk & Jesse Fried, Pay without Performance: The Unfulfilled Promise of Executive Compensation (2004). For evidence in support of the Power hypothesis, see Marianne Bertrand & Sendhil Mullainathan, Agents With and Without Principals, 90 Am. Econ. Rev. 203 (2000), and Marianne Bertrand & Sendhil Mullainathan, Are CEOs Rewarded for Luck? The Ones without Principals Are, 116 Q. J. Econ. 901 (2001). For a critique of this hypothesis, see Kevin J. Murphy, Explaining Executive Compensation: Managerial Power versus the Perceived Cost of Stock Options, 69 U. Chi. L. Rev. 847 (2002).


which the board in fact decided to grant options. The executive does this to obtain options at a lower exercise price because the board-designated exercise price typically mirrors the stock price prevailing on the board-designated grant date. Thus, backdating is only worthwhile if the stock price has been rising in the days before the board decision date. Although backdating has received the most attention, other dating games are also possible. For example, if the stock price has been falling before the board’s decision date, executives can wait to see what the stock price does in the near future before designating a grant date (backdating is clearly pointless). If the stock price continues to fall, they can designate a future date as the grant date. We term this practice forward-dating.

We argue in this Article that misdating of option grants has economic implications resulting from legal, tax, disclosure, and incentive issues, all of which are detrimental to shareholders. Specifically, we discuss four consequences of misdating that can adversely impact shareholder value. (1) Legal issues: There are legal consequences arising from backdating or forward-dating without complete disclosure. In addition, the ethical issues raised might have economic consequences as they undermine investors’ confidence in top executives. (2) Tax issues: The tax treatment of in-the-money options is different than the tax treatment of at-the-money options with implications for both the company and its executives. (3) Corporate disclosure issues: Disclosure of misdating practices can lead to the restatement of earnings, as the camouflaged pay is recognized as a compensation expense. The reduced earnings can also result in a downward reassessment of shareholder value. (4) Incentive issues: Misdating amounts to stealth compensation. If this is done because executives have captured the compensation process, then the managers are being inefficiently compensated, resulting in incorrect incentives.

We discuss the economic impact of each of the above issues. We then measure the economic impact of dating games on a list of firms that have already been implicated or are under investigation for these practices. The list of firms is taken from a website maintained by the Wall Street Journal.

11. Although it is the norm to set the board decision date as the grant date, we are aware of no SEC regulation that requires it. Section 1.421-1 of The Internal Revenue Code, however, requires specification of the grant date. It states: "the date of the granting of the option" and "the time such option is granted," and similar phrases refer to the date or time when the granting corporation completes the corporate action constituting an offer of stock for sale to an individual under the terms and conditions of a statutory option. A corporate action constituting an offer of stock for sale is not considered complete until the date on which the maximum number of shares that can be purchased under the option and the minimum option price are fixed or determinable. I.R.C. § 1.421-1 (2004).

12. Options with the exercise price equal to the prevailing stock price are called at-the-money options. If the exercise price is lower or greater than the stock price, the options are called, respectively, in-the-money or out-of-the-money options.


We find that firms on this list lost on average a market value of $389 million per firm during a window of twenty-one days around the first announcement that implicated a firm in backdating, either by the firm's own admission, or because the SEC or the Justice Department had commenced an investigation.\textsuperscript{15} We compare this figure to the average gain executives of these firms might have achieved during 2000–2004 if they had backdated aggressively, i.e., backdated on every grant date that backdating would have been profitable. We find that executives would have benefited by $500,000 per firm per year at most by backdating during this period.\textsuperscript{16} It appears that the potential benefit to executives from clandestine backdating is miniscule compared to the potential damage to shareholders.

We suggest some remedies to eliminate clandestine backdating and other types of stock price manipulation influencing executive compensation. It has been documented that the Sarbanes-Oxley Act of 2002 ("SOX")\textsuperscript{17} has not been successful in fully eliminating clandestine backdating or other forms of manipulation such as springloading, where managers manipulate the timing of the release of information around the grant date.\textsuperscript{18} Recently the SEC has voted to approve changes to reporting requirements that will eliminate the dating games.\textsuperscript{19} We discuss remedies to eliminate springloading as well.

The Article is organized as follows. Part I provides an overview of the dating games, namely backdating and forward-dating. Part II discusses the four consequences of these dating games and their impact on shareholder value. Part III measures the impact on the shareholder value of a list of firms already implicated in dating games. Part IV suggests some remedies for limiting the manipulation of executive compensation. The Conclusion summarizes our findings and conclusions.

I. AN OVERVIEW OF BACKDATING AND FORWARD-DATING

In this section we provide a brief description of two types of dating games, namely backdating and forward-dating, and the academic evidence consistent with their prevalence before and after the enactment of SOX. We conclude by describing the types of companies and executives that appear more likely to backdate and the option-granting procedures that appear to encourage backdating. Before we describe these games, it is important to note that neither backdating nor forward-dating by itself is illegal, as long as

\begin{enumerate}
\item See infra Section III.D.
\item See infra Section III.D.
\end{enumerate}
it is duly authorized by the board, fully disclosed, and reported in keeping with tax rules.

Dating games are best explained using simple examples. Suppose an executive is awarded options on April 15 by the board of directors when the firm’s stock price is $40. As is the practice with almost all awards, these options are awarded at-the-money, meaning that the exercise price is set equal to the stock price on the grant date, here $40. If the stock price at the time of exercise exceeds the exercise price of $40, the payoff to this executive will be the difference between the stock price prevailing at the time of exercise and the exercise price of $40.

Suppose the firm’s stock price has been rising before the board decision date. The executive sees an opportunity to increase her compensation and declares that she received at-the-money options on March 15, when the stock price of $30 was below $40, and files a Form 4 report with the SEC stating that March 15 is the grant date. This is backdating. This declaration automatically sets the exercise price equal to the stock price on March 15, or $30. What the board intended was that the executive receive options on April 15 with an exercise price of $40. What the executive declared was that she received at-the-money options with an exercise price of $30 on March 15. The payoff to this executive now equals the stock price at the time of exercise less the exercise price of $30 if the stock price ends up above $30 at the time of exercise. By obtaining options at a lower exercise price than the board intended, the executive received more compensation than intended by tampering with corporate documents. Also, because the board decision was really made on April 15, this executive received options that are $10 in-the-money immediately.

Now consider a different scenario. As before, the board grants at-the-money options on April 15 when the stock price is $40. Now, however, suppose the stock price has been falling prior to the board decision date. Backdating is clearly fruitless. The executive can play a different dating game: forward-dating. The executive can wait to see what the stock price does. If it continues to decline, the executive can wait to designate a future date as the grant date. Suppose the stock falls to $35 by April 25. The executive declares that she received at-the-money options on April 25, at the exercise price of $35.

20. Brian J. Hall & Kevin J. Murphy, Optimal Exercise Prices for Executive Stock Options, 90 AM. ECON. REV. 209 (2000). As Hall and Murphy note, 94% of the options are granted at-the-money, and the remaining options are granted out-of-the-money. Id. There are two possible reasons for the absence of in-the-money options. First, prevailing Financial Accounting Standards Board ("FASB") rules require that the difference between the stock price and the exercise price of in-the-money options be charged against earnings. FIN. ACCOUNTING STANDARDS BD., STATEMENT OF FINANCIAL ACCOUNTING STANDARDS No. 123: ACCOUNTING FOR STOCK-BASED COMPENSATION paras. 11-15 (1995) [hereinafter ACCOUNTING FOR STOCK-BASED COMPENSATION]. Second, in-the-money options are not considered "performance-based compensation" under Section 162(m) of the Internal Revenue Code and therefore are not deductible if an executive's total nonperformance-based compensation exceeds $1 million a year. I.R.C. § 162(m) (2000). We describe these issues infra Sections II.B-C.

21. In this example, we implicitly assume that the executive is solely responsible for the misdating. The basic idea remains the same even if the board is complicit in this practice.
The essential difference between backdating and forward-dating is that the manager-designated grant date is before the board decision date in the case of the former while it is after the board decision date in the case of the latter. The extent of backdating or forward-dating, i.e., the number of days of misdating, involves a trade-off between the potential for additional compensation and the risk of detection. Backdaters can seek a date prior to the board date to obtain a lower exercise price at an increased risk of detection. Similarly, forward-daters can watch as a stock price falls, and wait until it reverses direction in order to maximize their payoff.

How were these dating games originally detected? It would be simple if we knew the board decision date and the designated grant date. Although data about the manager-designated grant dates are available from Form 4 filings with the SEC, board decision dates are not readily available to researchers. Professors Narayanan and Seyhun were the first to propose a test relating reporting lags to stock price patterns around the grant date to overcome this problem. Because we know when the SEC received Form 4, we can measure the time lag between the manager-designated grant date and the report date. If executives are backdating, a longer reporting lag implies that, on average, they were backdating aggressively, seeking a lower exercise price. This in turn implies that the extent of stock price rise following the manager-designated grant date will be positively correlated with the reporting lag. This is precisely what Narayanan and Seyhun found. Using a dataset of over 600,000 grants during the period of 1992–2002 (almost all of

22. The disclosure of changes in the equity holdings of beneficial owners (defined as director, officer, or beneficial owner of more than ten percent of any class of equity securities) is governed by Section 16(a) of the Securities and Exchange Act of 1934 (“Exchange Act”). 15 U.S.C.A. § 78p (2000). On August 27, 2002, in line with section 403 of SOX, the SEC amended the disclosure rules for beneficial ownership reports to be filed under section 16(a). See 17 C.F.R. § 240.16a-3 (2006); Sec. Exch. Comm’n, Commission Approves Rules Implementing Provisions of Sarbanes-Oxley Act, Accelerating Periodic Filings, and Other Measures (Aug. 27, 2002) available at http://www.sec.gov/news/press/2002-128.htm. The filing requirements became effective on August 29, 2002. Ownership Reports and Trading by Officers, Directors and Principal Security Holders, 67 Fed. Reg. 56,462 (proposed Sept. 3, 2002) (to be codified at 17 C.F.R. pts. 240, 259, 274). SOX has instituted two major changes regarding the disclosure of executive option grants. First, it requires that most grants be reported within two business days following the execution date of the transaction. Id. § 403. Second, it requires that practically all executive option grants be reported on Form 4. See id.; 17 C.F.R. § 240.16a-3 (2006). Effective June 30, 2003, Form 4 must be filed electronically within the two-day deadline. 17 C.F.R. § 240.16a-3(k) (2006). Prior to SOX, grants meeting certain requirements could be reported on Form 5 which had to be filed only within forty-five days of the end of the company’s fiscal year, while other grants had been reported on Form 4 which had to be filed within the first ten days of the month following the month of the grant. 17 C.F.R. § 240.16a-3 (2001).


them pre-SOX), they found that post-grant returns increased with reporting lags. In the follow-up study, using post-SOX data of over 638,000 grants, Narayanan and Seyhun found a similar positive correlation.

Forward-dating is more difficult to detect. The reporting lag technique cannot identify the prevalence of forward-dating as cleanly as it can detect backdating for the following reason: when forward-dating, there is no built-in lag since the executive waits for a date in the future and can always report promptly when the date occurs.

Narayanan and Seyhun use a slightly different technique to provide evidence consistent with forward-dating. Consider an executive engaged in forward-dating who also wishes to report the grant promptly to avoid violating reporting regulations. After SOX, the executive needs to report within two business days of the grant. This executive is forward-dating only because the stock price has been falling. If she is an aggressive forward-dater, the executive will continue to observe the stock price until it reaches a trough and starts reversing. If the reversal continues for two days, the executive designates the date prior to the day the stock price started reversing as the grant date and reports the grant immediately, filing Form 4 electronically the same day to meet SOX reporting requirements. This scenario gives rise to a testable prediction that two-day reporting lags should be more likely than zero or one-day reporting lags when the stock price is falling prior to the designated grant date. A second prediction for the same sample of firms is that stock price should be more likely to rise after the manager-designated grant date. The presence of both trends is consistent with forward-dating, and Narayanan and Seyhun observed both trends within this sample of firms.

A related question that arises is the effect of SOX on dating games. The SOX requirement that option grants must be reported within two business days severely limits the extent of backdating by executives who want to meet the requirement. However, Narayanan and Seyhun show that more than 20% of the post-SOX grants are reported late and that about 10% are reported over one month, or twenty-two business days, late. This result provides prima facie evidence that backdating may still be going on after

25. Id.
26. Narayanan & Seyhun, supra note 13, at 37–45. The fact that stock prices generally rose after the grant date has been well-known for about a decade. See David Yermack, Good Timing: CEO Stock Option Awards and Company News Announcements, 52 J. FIN. 449 (1997). Notably, this pattern of stock prices is consistent with manipulations other than the dating games described here. For example, managers might release good news just after receiving a grant, or they might award themselves grants just before releasing good news. We call these manipulations “timing.” They are also known as “springloading.” For evidence of timing, see id. and David Aboody & Ron Kasznik, CEO Stock Option Awards and the Timing of Corporate Voluntary Disclosures, 29 J. ACCT. & ECON. 73 (2000). It is the relation between post-grant stock price rises and reporting lags that distinguishes dating games such as backdating and forward-dating from timing or springloading. See Narayanan & Seyhun, supra note 7, for more evidence distinguishing the dating games from timing.
27. Narayanan & Seyhun, supra note 13, at 45.
28. Id.
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SOX. The evidence provided by Narayanan and Seyhun confirms this conjecture: the same paper shows that the thirty-day post-grant return was 3.4% before SOX but fell to 1.6% after SOX. SOX has reduced the practice, as expected, but has not fully eliminated it.

What types of companies and executives are likely to have benefited the most from backdating? Narayanan and Seyhun found that large grants (more than 100,000 options) that were reported more than a month late after SOX had significantly greater returns after the grant date compared to the rest of the sample. Thirty-day stock returns after grants of between 100,000 and 500,000 options were about 15% while the figure was about 25% for grants of over 500,000 options. Such late-reported large awards were made disproportionately by smaller firms: about 58% of the firms in this category had market capitalization of less than $100 million and about 78% of them had market capitalization of less than $500 million.

Another interesting statistic is the significantly lower number of late grants which were scheduled grants (that is, grants that are scheduled in the same month as previous year's grants). Although about 51% of the grants were scheduled grants in the whole sample, Narayanan and Seyhun found that in the late-reporting large-grant sample only 28% were scheduled grants. When grants are scheduled during certain days of the year (the day of the board meeting to ratify the annual report, for example), and these days are public knowledge, the probability of backdating is likely to be lower.

II. ECONOMIC IMPACT OF BACKDATING

As indicated earlier, there are four channels through which backdating can affect shareholder value: (1) legal issues; (2) tax issues; (3) financial reporting or disclosure issues; and (4) incentive issues. In this section, we briefly describe how backdating affects shareholder value through each of these channels.

A. Legal Issues

The inclusion of stock options in executive compensation packages is generally meant to align management's interests with the interests of the company's shareholders. This is accomplished by making the executive's compensation dependent on stock performance. As discussed in Part I,
when option grants are backdated or forward-dated, investors are unaware that the options granted are in-the-money. Thus, shareholders may be misled into believing that management’s interests are firmly aligned with theirs through the compensation package, when in fact executives can receive additional compensation without stock prices rising. Moreover, stock options granted at-the-money may not require the company to incur expenses in the same way that in-the-money options do. As discussed in Section II.C below, when a company grants discounted stock options it must record a compensation expense. Backdating and forward-dating are thus misleading shareholders not only with respect to the amount of compensation being granted to executives, but also with respect to the financial statements. Without full disclosure and accounting of the practice, it is misleading to certify the financial statements as compliant with Generally Accepted Accounting Principles ("GAAP").

This deception is no doubt contrary to the purposes of the securities laws and the more recent Sarbanes-Oxley Act, but the courts have not yet had the opportunity to rule on whether the practice of backdating is a violation of the securities laws. That opportunity is looming on the horizon, however, with recent litigation pertaining to the legality of backdating filed by both the SEC and private litigants.

Convincing arguments can be made that the practice of backdating and forward-dating of options violates both federal securities law and state corporate law. The recent actions filed by the SEC against the executives of Brocade Communications Systems, Inc., and Comverse Technology, Inc.,

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[36. **Fin. Accounting Standards Bd., Statement of Financial Accounting Standards No. 123: Share-Based Payment** (revised 2004) [hereinafter Share-Based Payment]. For reporting periods prior to June 15, 2005, the governing accounting standards and related opinion were Accounting for Stock Issued to Employees, 25 Opinions of the Acct. Principles Board 467 (1972), and Accounting for Stock-Based Compensation, supra note 20. See infra Section II.C for further discussion of this issue.

[37. See discussion infra Section II.C.]

[38. See infra Section II.C.]

[39. The Securities Act of 1933 was enacted "[t]o provide full and fair disclosure of the character of securities sold in interstate and foreign commerce and through the mails, and to prevent frauds in the sale thereof, and for other purposes." Securities Act of 1933, 48 Stat. 74 (1933) (codified at 15 U.S.C. § 77a et seq. (2000)).


[41. As of July 27, 2006, it has been reported that eighty-four derivative actions and ten class actions have been filed by private litigants in connection with backdating of options. Cary O'Reilly, **Option backdating spurs few lawsuits**, Seattle Times, July 27, 2006, at C2. In addition, the SEC has filed two civil lawsuits, and the U.S. Attorneys for the Northern District of California and the Eastern District of New York have filed corresponding criminal charges in those cases.


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indicate the Commission’s belief that the backdating practices have resulted in violations of the securities laws.\(^4\)

In this Section, we argue that backdating and forward-dating practices, to the extent intended to provide undisclosed compensation, violate section 10(b) of the Securities Exchange Act of 1934\(^4\) and Rule 10b-5\(^5\) promulgated thereunder, as well as state corporate laws regarding corporate governance and fiduciary duties. Although we recognize that several other provisions of the federal securities laws are also implicated,\(^6\) an exhaustive review of the federal securities laws that might be violated is beyond the scope of this Article. Instead, we seek to provide an overview of the section 10(b), Rule 10b-5, and state corporate law claims regarding fiduciary duties as illustrative of the legal issues presented by backdating and forward-dating practices.

1. Violation of Federal Securities Laws

Section 10(b) of the Securities Exchange Act of 1934\(^6\) makes it unlawful for any person to "use or employ, in connection with the purchase or sale of any security registered on a national securities exchange or any security not so registered, . . . any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the Commission may

\(4\) Complaint, SEC v. Alexander, No. 1:06-CV-03844 (E.D.N.Y. Aug. 9, 2006); Complaint, SEC v. Reyes, No. 06-4435 (N.D. Cal. July 20, 2006). In addition, a final judgment was recently entered in the case brought by the SEC against Leonard Goldner, the former Senior Vice President and General Counsel of Symbol Technologies, Inc. Litigation Release No. 19,585, U.S. Sec. and Exch. Comm’n, Former General Counsel of Symbol Technologies, Inc. Consents to Permanent Injunctive Relief, Officer-and-Director Bar and Administrative Order Under Rule 102(E) (Mar. 2, 2006), http://www.sec.gov/litigation/litreleases/lr19585.htm (last visited Jan. 13, 2007). The SEC complaint against Symbol Technologies, Goldner, and ten other former executives alleged that the defendants entered into a fraudulent scheme to inflate financial performance. Among other things, Goldner was alleged to have manipulated stock option exercise dates. Litigation Release No. 18,734, U.S. Sec. and Exch. Comm’n, SEC Charges Symbol Technologies, Inc. and 11 Former Symbol Executives with Securities Fraud (June 3, 2004), http://www.sec.gov/litigation/litreleases/IR18734.htm (last visited Jan. 30, 2007). Goldner pled guilty in 2004 to criminal charges brought by the U.S. Attorney’s office, and on February 7, 2006, the U.S. District Court entered a final judgment pursuant to a consent decree with the SEC prohibiting him from acting as an officer or director of a public company. See Former General Counsel of Symbol Tech., Inc., Consents to Permanent Injunctive Relief, Officer-and-Director Bar and Administrative Order Under Rule 102(E), supra.


\(4\) We note, for example, that the complaint against the executives of Converse Technology, Inc., alleges violations of “Section 17(a) of the Securities Act of 1933 [15 U.S.C. § 77q(a)], Sections 10(b), 13(b)(5), 14(a) and 16(a) of the Securities Exchange Act of 1934 [15 U.S.C. §§ 78j(b), 78m(b)(5), 78n(a) and 78p(a)] and Exchange Act Rules 10b-5, 13b-2, 13b-2, 14a-9 and 16a-3 [17 C.F.R. §§ 240.10b-5, 240.13b2-1, 240.13b2-2, 240.14a-9 and 240.16a-3] thereunder” (internal definitions omitted). Two defendants were also alleged to have violated Exchange Act Rule 13a-14 [17 C.F.R. § 240.13a-14]. Complaint, SEC v. Alexander, No. 1:06-CV-03844 (E.D.N.Y. Aug. 9, 2006).

Rule 10b-5, promulgated pursuant to section 10(b), makes it unlawful for any person, in connection with the purchase or sale of securities:

(a) to employ any device, scheme, or artifice to defraud,

(b) to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading, or

(c) to engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person.50

To establish a violation of section 10(b) and Rule 10b-5, the SEC must prove the following elements: "(1) a material misrepresentation, (2) connection with the purchase or sale of a security, (3) scienter, and (4) use of the jurisdictional means."51 A misrepresentation or omission is material if there is a substantial likelihood a reasonable investor would consider it important in making an investment decision.52 The United States Supreme Court in Basic Inc. v. Levinson,53 adopting the language from its earlier decision TSC Industries, Inc. v. Northway,54 described the materiality standard as requiring "a substantial likelihood that the disclosure . . . would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."55 Furthermore, whether a misstatement or an omitted fact is material "is generally considered a mixed question of law and fact, and therefore uniquely within the province of the factfinder."56

To determine materiality, courts consider factors such as whether the disclosure affected a change in stock price57 and the percentage of earnings or losses that were misstated. In 1999, the SEC released a Staff Accounting Bulletin ("SAB 99") that rejected reliance on quantitative benchmarks to determine materiality, stating that "misstatements are not immaterial simply because they fall beneath a numerical threshold."58 According to SAB 99, materiality must be considered in light of all relevant considerations, includ-

49. Id. § 78j(a)(2)(b).
51. SEC v. C. Jones & Co., 312 F. Supp. 2d 1375, 1379 (D. Colo. 2004). The SEC is not required to show reliance or loss causation, as is required of a private plaintiff to bring an action under Rule 10b-5. Those elements are elements of a private cause of action for damages. See SEC v. Rana Research, Inc., 8 F.3d 1358, 1364 (9th Cir. 1993).
53. 485 U.S. 224.
ing qualitative factors such as whether the misstatement or omission was deliberate or intentional.59

The Second Circuit Court of Appeals adopted the SEC staff’s approach outlined in SAB 99 in Ganino v. Citizens Utilities Co.60 The court ruled that the district court erred in using a quantitative benchmark to measure materiality.61 Other federal Circuit Courts of Appeals have adopted similar context-based approaches to measuring materiality.62 In addition, the Southern District of New York has held that “the misstated or omitted fact must have been one that would have assumed actual significance in the reasonable shareholder’s decision-making process, [but] there is no requirement that the fact would have been outcome determinative.”63

Backdating and forward-dating of options appear by their nature to fall within the current standards for material misrepresentation. There seems to be a substantial likelihood that a reasonable investor would consider the information regarding the dating of the options important when making an investment decision. Executive compensation issues are currently at the forefront of shareholder concerns.64 In a student-run empirical study on

59. See id. at 45,152.

60. 228 F.3d 154, 163–64 (2d Cir. 2000) ("[B]ecause SEC staff accounting bulletins ‘constitute a body of experience and informed judgment,’ and SAB No. 99 is thoroughly reasoned and consistent with existing law . . . we find it persuasive guidance for evaluating the materiality of an alleged misrepresentation.") (citation omitted).

61. Ganino, 228 F.3d at 163–64.

62. E.g., SEC v. Ginsburg, 362 F.3d 1292, 1302 (11th Cir. 2004) ("The determination of materiality ‘requires delicate assessments of the inferences a ‘reasonable shareholder’ would draw from a given set of facts and the significance of those inferences to him . . . ‘”) (quoting TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 450); No. 84 Employer-Teamster Joint Council Pension Trust Fund v. Am. W. Holding Corp., 320 F.3d 920, 934 (9th Cir. 2003) (rejecting defendant’s argument for adoption of a bright-line “market reaction” rule to determine materiality, choosing instead to conduct a “fact-specific inquiry”); Searls v. Glasser, 64 F.3d 1061, 1066 (7th Cir. 1995) (finding the determination of materiality to be a “highly fact-dependent analysis”).


shareholder proposals between 2000 and 2004, the authors noted that executive compensation proposals were the most common type of shareholder proposals submitted. Moreover, when backdating and forward-dating occur, the financial statements are not accurate, and tax laws may be violated. If the practice later comes to light, the company may be required to restate its financial statements and may be subject to various penalties.

In one of the recent cases filed by the SEC alleging charges of backdating in violation of securities laws, Brocade Communication Systems, Inc. was required to restate at least four years of financial statements. The financial impact included the following:

(1) [N]et loss for the 2004 fiscal year increased from $1.3 million to $32 million (i.e., net loss was understated by 95.9%); (2) net loss for fiscal year 2003 increased from $136 million to $146 million; (3) net income for fiscal year 2002 increased from $60 million to $126 million; and (4) income for fiscal years 1999 through 2001 declined by a total of $303 million.

Additionally, Brocade restated a Form 10-K dated November 2005 to include $0.9 million related to options grants between August 2003 and November 2004. Even by very crude quantitative materiality benchmarks, these amounts in misstated earnings would likely be material.

The recent case filed against former executives of Comverse Technology, Inc. appears even more egregious. In this case, the SEC alleges that "former executives collectively realized millions of dollars of ill-gotten compensation through the exercise of illegally backdated option grants and the subsequent sale of Comverse common stock." The executives purportedly went so far as to create a so-called "slush fund" of backdated options in law capture the attention of the academy and the general public quite like executive compensation.

65. Jason M. Loring & C. Keith Taylor, Empirical Study: Shareholder Activism: Directorial Responses to Investors' Attempts to Change the Corporate Governance Landscape, 41 WAKE FOREST L. REV. 321, 328 (2006). The authors used data from The Corporate Library. "TCL gathers data on over two thousand major American corporations listed in four common indexes. It tracks proposals that have been submitted to those companies and uses several sources to determine whether those proposals have been implemented." Id. at 327.

66. See infra Section II.B for a discussion of the tax consequences of backdating.


69. Id. ¶ 38.


the names of fictitious employees, hidden from the company's auditors. Once the option grants were approved by the board committee, it is alleged that the backdated options were then used for recruiting and retention of key employees. Moreover, the Wall Street Journal reports that the former chief executive has fled the country in the wake of the SEC charges.

A counterargument to the materiality claim may be made in cases where the backdating or forward-dating produced de minimis income for the executives, and thus had a minor effect on the financial statements. However, even in such cases, the shareholders may very well consider the information important when making an investment decision. It seems logical to conclude that shareholders may lose faith in management who choose to compensate themselves in such a hidden manner and that shareholders' investment decisions may be thereby affected. Furthermore, the empirical evidence presented below in Part III supports the conclusion that even an immaterial effect on earnings may have a much greater effect on shareholder wealth.

We recognize that it may be possible in some circumstances for a company to engage inadvertently in backdating practices due to ministerial errors in recording stock grant approval dates. If this is true, and if the financial consequences of the error are indeed minimal, the particular backdating event might be found to be immaterial. Without intent to deceive, the materiality issue may well turn on the dollar amount of the misstatement. Yet, it is also possible that the sloppiness of the record-

73. Id.
75. See infra Section II.D. For example, managerial integrity was at issue in In re Franchard Corp., 42 S.E.C. 163 (1964). In that case, the SEC considered whether to issue a stop order suspending the validity of three registration statements of the Franchard Corporation (formerly the Glickman corporation) for failure to disclose, among other things, the unauthorized withdrawals of company funds by Louis J. Glickman, Franchard Corporation's controlling shareholder, president, and chairman. Id. at 164–68. Although a stop order was not issued, the Commission found that Franchard Corporation's disclosures were materially deficient. Id. at 185. In particular, the Commission rejected the contention that the withdrawals, aggregating to over $2 million, were immaterial because they "never exceeded 1.5 percent of the gross book value of [the Franchard Corporation's] assets." Id. at 171. That argument ignored "the significance to prospective investors of information concerning Glickman's managerial ability and personal integrity." Id. These factors were particularly important to investors because the Franchard Corporation had no operating history and investors were primarily attracted to the company by Glickman's reputation. Id. The Commission suggested that the integrity of management "is always a material factor," and Glickman's undisclosed withdrawals were "germane to an evaluation of the integrity of his management." Id. at 172. The same reasoning could presumably apply equally to a manager who accepts compensation which is inflated through undisclosed backdating. Cf. SEC v. Jos. Schlitz Brewing Co., 452 F. Supp. 824, 830 (E.D. Wis. 1978) ("[T]he question of the integrity of management gives materiality to the matters the Commission claims should have been disclosed."). But cf. Greenhouse v. MCG Capital Corp., 392 F.3d 650, 659 (4th Cir. 2004).
76. See infra Part III.
77. The SEC is also mindful of the distinction between backdating that results from illegal activities and backdating that results from ministerial, logistical delays and is taking care not to lump together "the innocuous with the nefarious." Paul S. Atkins, Commissioner, U.S. Sec. Exch. Comm'n, Remarks at the SEC Open Meeting (July 26, 2006) (transcript available at http://www.sec.gov/news/speech/2006/spch072606psa.htm) (last visited Jan. 7, 2006).
keeping practices leading to the error would be taken into account as a qualitative factor considered when determining materiality. In any event, controls should be put in place in the future to prevent these errors from occurring. Regardless of intent, the financial statements are still misleading.

The second element of a 10b-5 claim requires that the fraud be in connection with the purchase or sale of securities. To meet this requirement, "[i]t is enough that the scheme to defraud and the sale of securities coincide." The courts have interpreted this element very broadly, holding that "[t]he misrepresentation need not be made with respect to a particular sales transaction but should be applied generally. For instance, statements in press releases, annual and quarterly reports, proxy statements and SEC filings have been found to satisfy the 'in connection with' element because investors rely on such documents." Backdating options leads to misrepresentations in financial statements, SEC filings, and potentially proxy statements, all documents upon which investors rely when making investment decisions. Thus, this element should be easily satisfied.

The third element of the 10b-5 claim is scienter. Scienter refers to the state of mind of the defendant. To meet this requirement, the SEC must prove that the defendant had "a mental state embracing intent to deceive, manipulate, or defraud." This element of a 10b-5 claim is often litigated. The Circuit Courts of Appeals have adopted varying standards for meeting the requirement of scienter. The Ninth Circuit Court of Appeals is quite stringent, requiring proof of intent or "deliberate recklessness" to establish a 10b-5 claim. The Ninth Circuit extended the Supreme Court's definition of scienter, a "mental state embracing intent to deceive, manipulate or defraud," by declaring that a showing of recklessness may establish scienter. The Ninth Circuit defines recklessness as follows:

79. SEC v. C. Jones & Co., 312 F. Supp. 2d 1375, 1381 (citing SEC v. Rana Research, Inc., 8 F.3d 1358, 1362 (9th Cir. 1993)).
81. Greebel v. FTP Software, Inc., 194 F.3d 185, 188 (1st Cir. 1999) (holding that the scienter standard included "a narrowly defined concept of recklessness which does not include ordinary negligence, but is closer to being a lesser form of intent"); Bryant v. Avado Brands, Inc., 187 F.3d 1271, 1283 (11th Cir. 1999) (holding that plaintiffs must show that defendants acted with "severe recklessness"); In re Comshare, Inc. Sec. Litig., 183 F.3d 542, 549 (6th Cir. 1999) (holding that to plead scienter, plaintiffs must allege facts "giving rise to a strong inference of recklessness" and cannot rest solely on allegations of "motive and opportunity"); Press v. Chem. Inv. Servs. Corp., 166 F.3d 529, 538 (2d Cir. 1999) ("[A] plaintiff must either (a) allege facts to show that 'defendants had both motive and opportunity to commit fraud' or (b) allege facts that 'constitute strong circumstantial evidence of conscious misbehavior or recklessness.'" (citation omitted)).
82. SEC v. Rubera, 350 F.3d 1084, 1094 (9th Cir. 2005) ("Scienter may be established by recklessness, defined as 'a highly unreasonable omission, involving not merely simple, or even inexcusable negligence, but an extreme departure from the standards of ordinary care, and which presents a danger of misleading buyers or sellers that is either known to the defendant or is so obvious that the actor must have been aware of it.'" (quoting Hollinger v. Titan Capital Corp., 914 F.2d 1564, 1569 (9th Cir. 1990))).
83. Ernst & Ernst, 425 U.S. at 193 n.12 (1976).
Reckless conduct is conduct that consists of a highly unreasonable act, or omission, that is an "extreme departure from the standards of ordinary care, and which presents a danger of misleading buyers or sellers that is either known to the defendant or is so obvious that the actor must have been aware of it." 85

The Ninth Circuit standard is particularly relevant in light of the large number of backdating investigations occurring in Silicon Valley.

Although resolution of this issue will turn on the facts of each individual case, it is logical to conclude that, at least with respect to large-scale practices, backdating or forward-dating is usually carried out with a state of mind sufficient to meet the Ninth Circuit's recklessness standard. Backdating of option grants appears to be done for only one purpose—to grant in-the-money options while making it appear as though the options were granted at-the-money. At the very least, there is intent to deceive as to the grant date of the option.

Again, we note the possibility of ministerial mistakes resulting in backdating. If such were truly the case, it would be difficult for the SEC to meet the scienter requirement of a 10b-5 claim. One practice that may be prone to mistake involves compensation committee approval of option grants by unanimous written consent. Under Delaware corporate law, unanimous written consents are effective on the date of the last signature. 86 It is possible that due to a variety of circumstances, the last signature may be obtained at a date later than that recorded as the effective date of the consent. If the options are dated as of the date incorrectly recorded as the effective date of the consent, backdating has occurred. In such circumstances, there may be no intent to deceive, and the behavior, although negligent and misleading, might not be reckless.

On the other hand, it is also possible that the practice of unanimous written consents for committee approval of option grants could be subject to abuse and used intentionally to perpetrate fraud. This practice underlies the allegation of the SEC in the case against the executives of Comverse Technology, Inc. 87 A best practice, in light of the propensity for error or the possibility of fraud, would be for compensation committees to avoid use of unanimous written consents for future approvals of option grants. At a minimum, a telephonic or other meeting, with a fixed date, would be in order.

The last element of a 10b-5 claim requires that the fraud was perpetrated "by the use of any means or instrumentality of interstate commerce, or of

84. SEC v. Dain Rauscher, Inc., 254 F.3d 852, 856 (9th Cir. 2001).
85. Id. at 856 (quoting Hollinger v. Titan Capital Corp., 914 F.2d 1564, 1568–69 (9th Cir. 1990)).
86. DEL. CODE ANN. tit. 8, § 141(f) (2001) ("[A]ny action required or permitted to be taken at any meeting of the board of directors . . . may be taken without a meeting if all members of the board . . . consent thereto in writing . . . ").
the mails.' This element is easily satisfied. Section 402 of Regulation S-K requires disclosure of executive compensation agreements. "[F]iling with the SEC ... satisfies] the jurisdictional means requirement."

It is also possible that the board of directors might be implicated in the dating games along with the officers who implemented the scheme. Under the federal securities laws, the definition of reckless conduct used by the Ninth Circuit in SEC v. Dain Rauscher may implicate board members if they knew or should have known about the misleading dating of option grants. In the Brocade case, charges have been filed against the former Vice President of Human Resources because she allegedly falsified documents in furtherance of the scheme, and also against the former CFO because he allegedly knew of the scheme and did nothing to end it. In fact, according to Howard v. Everex Systems, Inc., the recklessness standard may be met by demonstrating that "red flags" existed, thereby casting doubt on the truthfulness or accuracy of representations. The Howard court held that there was sufficient evidence for a jury to find that a director had the requisite level of scienter when he signed financial statements misrepresenting the company's financial condition despite possessing negative information about its actual financial condition. Therefore, a board that approved back-

90. SEC v. Todd, No. 03CV2230, 2006 U.S. Dist. LEXIS 41182, at *9 (S.D. Cal. May 30, 2006). In addition to Rule 10b-5 violations, there are a number of other securities laws that are likely implicated by dating games. For example, the elements of a claim of a violation of Section 17(a) of the Securities Act, 15 U.S.C. § 77q(a) (2006), are "essentially the same" as a Section 10(b) claim. SEC v. C. Jones & Co., 312 F. Supp. 2d 1375, 1379 (D. Colo. 2004). Similarly, Section 13(b)(5) of the Exchange Act, 15 U.S.C. §78m(b)(5) (2000), may also be implicated by backdating and forward-dating activities. Section 13(b)(5) is violated by "knowingly circumvent[ing] or knowingly fail[ing] to implement a system of internal accounting controls or knowingly falsify[ing] any book, record or account described in paragraph (2) [of section 13(b)(5)]." Id. In the Brocade and Converse Technology cases currently pending, the defendants are alleged to have falsified documents and records of option grants, and by extension, financial records. See Complaint, SEC v. Alexander, No. 1:06-CV-03844 (E.D.N.Y. Aug. 9, 2006); Complaint at 8-9, SEC v. Reyes, No. 06-4435 (N.D. Cal. July 20, 2006). The defendants in the Brocade case are also alleged to have provided false information to the board of directors and to outside auditors in order to allow the scheme to remain undetected. See Complaint, Reyes, No. 06-4435. There are also a number of reporting provisions that may be violated by submitting financial statements that are false due to backdated options. See 17 C.F.R. § 240.13b2-2, .13a-14, .12b-20, .13a-1, .13a-13, .13b2-1 (2006). Again, this list is meant to be illustrative rather than exhaustive.
91. "[A] director who has the requisite level of scienter and signs a fraudulent [form filed with the SEC] can be liable as a primary violator of § 10(b) for making a false statement." Howard v. Everex Sys., Inc., 228 F.3d 1057, 1061 (9th Cir. 2000) (citing AUSA Life Ins. Co. v. Dwyer, 928 F. Supp. 1239, 1255-56 (S.D.N.Y. 1996)).
92. 254 F.3d 852, 856 (9th Cir. 2001) ("Reckless conduct is conduct that consists of a highly unreasonable act, or omission, that is an 'extreme departure from the standards of ordinary care, and which presents a danger of misleading buyers or sellers that is either known to the defendant or is so obvious that the actor must have been aware of it'") (quoting Hollinger v. Titan Capital Corp., 914 F.2d 1564, 1569 (9th Cir. 1990)).
94. Howard, 228 F.3d at 1064.
95. Id.
dating of grants, without making appropriate financial disclosures, would also likely be liable for federal securities law violations.

The more difficult case will be where the board approved the option grants but did not know that the executives were backdating or forward-dating the grants. Here the question will be whether there was scienter under federal securities laws. Without actual intent to defraud, the courts will need to determine whether the behavior was deliberately reckless. They will likely consider the existence of "red flags" indicating the practice of backdating or forward-dating by the executives and whether such indicators were sufficiently obvious that the board should have been aware of the practice.96

We note that the alleged fraud in the Brocade case seems to have been instigated by the only member of the compensation committee.97 A best practice may be to avoid utilizing the corporate law provision that permits one-member committees,98 at least for executive compensation. Additional committee members may help provide a check on self-serving behaviors of one committee member. Additionally, the revised New York Stock Exchange ("NYSE") corporate governance rules require the compensation committee be made up entirely of independent directors to minimize conflict of interest issues.99

2. State Corporate Law Implications

In addition to violating federal securities laws, the dating games played by corporate executives run contrary to their fiduciary duties to the corporation and to the shareholders. In general, corporate officers and directors owe the corporation and the shareholders the fiduciary duties of care100 and loyalty,101 and intertwined with loyalty is the obligation to act in good

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96. In the complaints filed to date against the executives of Brocade, the SEC has not charged the board members (with the exception of Reyes, who served as chairman and CEO) with any violations. See Complaint at 3, SEC v. Reyes, No. 06-4435 (N.D. Cal. July 20, 2006). This is likely because Reyes, the former CEO, was acting as the only member of the compensation committee and allegedly provided false information to the board. Id. at 6. However, it would seem that a board that approves options with backdated grant dates may be liable if they should have known that the grant dates were incorrect and did not make the required financial disclosures.

97. Id.


99. NEW YORK STOCK EXCHANGE, LISTED COMPANY MANUAL § 303A.05(a) (2004).


faith. The duty of care requires officers and directors to act as a reasonable person would act under similar circumstances, or at least to act without gross negligence. Loyalty obligations require corporate officers and directors to act in the best interest of the corporation, not for self-interest. To the extent executives engage in related-party transactions, they are protected from liability only if they disclose such transactions and gain approval by an independent committee of the board. When independent approval has not been granted, the courts will review contested transactions against a standard of entire fairness. That is, the court will only approve the transaction if it was entirely fair to both outcome and process. Entire fairness is one of the strictest standards of scrutiny employed by the Delaware courts.

Again, although the issues of fiduciary duty breach in any particular case will turn on specific facts and circumstances, dating games are unlikely to withstand the scrutiny of a fiduciary duty analysis. The clearest case appears to be against the executives who engaged in the backdating or forward-dating practices. To the extent they manipulated option dates to provide themselves with additional undisclosed compensation, they seem to be in violation of their fiduciary duties. The manipulation would in most cases have constituted an intentional misrepresentation of their compensation to the stockholders and a concomitant misrepresentation of the financial health of the company. Intentional deception is not within the parameters of fiduciary duties.


102. See, e.g., Stone v. Ritter, C.A. No. 93, 2006 (Del. Supr. November 6, 2006) (duty of good faith is part of duty of loyalty); Emerging Comm'n's, 2004 Del. Ch. LEXIS, at *138-45 (discussing good faith and interplay with the duty of loyalty); In re The Walt Disney Co. Derivative Litig., 907 A.2d 693, 755 (Del. Ch. 2005), aff'd, 906 A.2d 27 (Del. 2006) ("The good faith required of a corporate fiduciary includes not simply the duties of care and loyalty . . . but all actions required by a true faithfulness and devotion to the interests of the corporation and its shareholders.").

103. See Briggs v. Spaulding, 141 U.S. 132, 152 (1891) (defining the degree of care required as "that which ordinarily prudent and diligent men would exercise under similar circumstances"); Graham v. Allis-Chalmers Mfg. Co., 188 A.2d 125, 130 (Del. 1963) (adopting the Briggs standard); American Law Institute, Principles of Corporate Governance: Analysis and Recommendations § 4.01 (2005) (defining duty of care in terms of a reasonable person standard). But see Cede & Co., 634 A.2d at 364 (rejecting the reasonable person standard in favor of one requiring gross negligence); Van Gorkom, 488 A.2d at 873 (confirming the view that director liability is predicated upon concepts of gross negligence).

104. See sources cited supra, note 100.


108. See Malone v. Brincat, 722 A.2d 5, 10 (Del. 1998) ("[W]hen directors communicate publicly or directly with shareholders about corporate matters the sine qua non of directors' fiduciary duty to shareholders is honesty.")).
These practices also implicate the duty of loyalty. The manipulation of stock granting dates is analogous to the classic case of an executive personally benefiting from a transaction at corporate expense. Back in 1939, the Delaware Supreme Court, in the leading case of *Guth v. Loft*, 109 made it clear that fiduciaries may not personally profit at the expense of the company. This duty was reiterated recently by the Delaware Chancery Court in *In re The Walt Disney Co. Derivative Litigation*. 110 In *Walt Disney*, the court also stated that "one cannot act loyally as a corporate director by causing the corporation to violate the positive laws it is obliged to obey." 111

Moreover, due to the direct conflicts of interest inherent in the backdating and forward-dating cases, an executive might need to be found to have been "entirely fair" to the corporation to pass muster under loyalty standards. Stealth compensation is not fair to the corporation and seems to be the type of self-dealing that the duty of loyalty was meant to prohibit. In the famous case of *Meinhard v. Salmon*, Judge Cardozo articulated the often quoted standard of behavior required of fiduciaries: "[a] trustee is held to something stricter than the morals of the market place. Not honesty alone, but the punctilio of an honor the most sensitive, is then the standard of behavior." 112 The behavior of the executives complicit to the backdating practices appears to be nowhere near meeting this standard.

As with the claims of securities fraud, the clearest claims for breach of fiduciary duty are against the executives engaged in backdating schemes. A more difficult question concerns the potential liability of the board of directors. To the extent the board members were aware of the deception and did nothing to disclose the practice, it would seem they violated their fiduciary duties of care, loyalty, and good faith as well. Although Delaware corporations are permitted by statute to limit or eliminate monetary liability of directors through a provision in the corporation's articles of incorporation, 113 this exculpation provision applies only to acts committed without intentional misconduct and to acts that do not otherwise violate the duty of loyalty or the obligation of good faith. 114 Thus, to the extent that backdating practices involve intentional misconduct or violate the duties of loyalty or good faith of the board members, the exculpation provision of state corporation statutes would be inapplicable to protect them from liability for fiduciary duty breach.

We note, however, that decisions regarding executive compensation plans are business decisions which in general would be protected by the business judgment rule. The business judgment rule is a presumption that business decisions are made in good faith and in the best interest of the cor-

109. 5 A.2d 503, 510 (Del. 1939).
110. 907 A.2d 693.
111. *Walt Disney Co.*, 907 A.2d at 753 n.447.
112. 164 N.E. 545, 546 (N.Y. 1928).
113. DEL. CODE. ANN. tit. 8 § 102(b)(7) (2001).
114. *Id.*
poration. If the board wishes to increase executive compensation through backdating or forward-dating options, this practice would seem to be within its province, provided that the compensation plan is properly reported. Courts generally do not second guess business decisions unless there is evidence of bad faith or a conflict of interest. But, as discussed in Section II.A, without disclosure backdating and forward-dating practices deceive shareholders and result in misleading financial information in apparent violation of federal securities laws. The business judgment rule would not apply to acts of deception that violate the board's fiduciary duties towards the company and its shareholders.

The more difficult case concerns claims that may be brought against directors who, although not aware that backdating was occurring, did not set up systems to prevent it from occurring. The issue of fiduciary duty breach for questions of oversight is an unresolved question in Delaware law. The clearest pronouncement on the issue came from the Court of Chancery, in dicta, in *In re Caremark International Inc. Derivative Litigation.* In *Caremark,* the court stated that "a director's obligation includes a duty to attempt in good faith to assure that a corporate information and reporting system, which the board concludes is adequate, exists." The court further stated that in order to show that the directors breached their duty of care, the following would need to be shown:

[Either (1) that the directors knew or (2) should have known that the violations of law were occurring and, in either event, (3) that the directors took no steps in a good faith effort to prevent or remedy that situation, and (4) that such failure proximately resulted in the losses complained of.]

Thus, under a *Caremark* analysis, the question for the noncomplicit directors would be whether they had attempted, in good faith, to set up an appropriate reporting system, and whether they should have known that violations of the law were occurring.

As noted above, boards should be looking closely for red flags that might tip them off to backdating or forward-dating games. Given the widespread nature of the current scandal, it is advisable that controls be instituted to show a good faith effort to prevent these scandals from occurring. Two


118. *Id. at* 970.

119. *Id. at* 971.

120. In the recent *Walt Disney* case, the court appeared dismayed with the role the board members played in approving the employment contract of the company president, but it did not find their behavior so egregious as to result in liability. *In re The Walt Disney Co. Derivative Litigation,* 907 A.2d 693, 760 (Del. Ch. 2005), aff'd, 906 A.2d 27 (Del. 2006). However, in *Walt Disney,* there was evidence presented that the board was informed of the issues, even though there was no supporting documentation. *Id. at* 707. The backdating cases are different to the extent that the boards may have been completely unaware of the practice.
possible controls include avoiding approval of option grants by unanimous written consent and avoiding one-person compensation committees.

In addition, it would be advisable for boards of directors to avoid conflicts of interest. Courts scrutinize more closely transactions that involve conflicts of interest.\textsuperscript{121} If conflicted interests exist between board members and executives who have been granted backdated options, courts are likely to look at the board with skepticism.\textsuperscript{122}

\section*{B. Tax Issues}

In order to understand the tax effects of backdating, we first provide a brief overview of relevant tax rules regarding stock option compensation. We then turn to the effects of backdating on taxation, which usually include the loss of exemptions and an increased tax burden either on the executive or on the company.

The primary section of the Internal Revenue Code ("IRC") that governs taxation of executive stock options is section 422.\textsuperscript{123} For tax purposes, there are two types of executive stock option plans: statutory incentive stock option plans ("ISOs") and nonstatutory stock option plans ("NSOs").\textsuperscript{124} The following table summarizes the differences between the two types of plans in terms of taxation of option compensation.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
| Type of Plan | Taxation of Option Compensation |
\hline
| ISOs | Qualified |
| NSOs | Nonqualified |
\hline
\end{tabular}
\end{table}

\footnotetext{121}{See supra notes 112-113 and accompanying text.}

\footnotetext{122}{The Wall Street Journal recently reported conflicts of interest coming to light in the internal probe of stock options at United Health. James Bandler & Charles Forelle, Interested Parties: In Internal Probes of Stock Options, Conflicts Abound, WALL ST. J., Aug. 11, 2006, at A1.}

\footnotetext{123}{I.R.C. § 422 (2000).}

\footnotetext{124}{ISOs and NSOs are sometimes referred to as qualified and nonqualified plans, respectively.}
### Table I

**Comparison of ISO and NSO Plans Regarding Taxation**

<table>
<thead>
<tr>
<th>Event</th>
<th>Tax Consequences to Company/Executive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ISO</td>
</tr>
<tr>
<td>Option grant</td>
<td>No tax effects.</td>
</tr>
<tr>
<td>Option vesting</td>
<td>No tax effects.</td>
</tr>
<tr>
<td>Option exercise</td>
<td>No tax effects.</td>
</tr>
<tr>
<td>Sale of stock from exercise</td>
<td>The difference between the sale price and exercise price is treated as capital gains and taxed accordingly.** No tax effect for the company.</td>
</tr>
</tbody>
</table>

* In-the-money option grants that vest after January 1, 2005, are treated as deferred compensation and are subject to § 409(A).

** If the long-term holding period requirements are satisfied, the capital gain is taxed at the capital gain tax rate. If not, ordinary income tax rates apply.

In addition to the tax rules listed in the table, section 162(m) of the IRC limits the executive compensation deduction for public companies to $1 million per year per executive for compensation paid to the top five most highly compensated executive officers for proxy reporting purposes.\(^{125}\) Option compensation that satisfies certain criteria may be considered “performance-based compensation” and as such, would be excluded from the $1 million limit. Under section 162(m), the amount of stock option gains will not be included within the $1 million deduction cap as long as the options are granted under a plan that has a per-person per-period limit on the number of options that can be granted each year; the options are not in-the-money when granted; an independent compensation committee grants them; and there is shareholder approval of the plan.\(^{126}\)

For a stock option to qualify as an ISO (and thus receive special tax treatment under IRC section 421(a)), it must meet the requirements of section 422 of the IRC when granted and at all times beginning from the grant until its exercise.\(^{127}\) The requirements include the following:

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125. I.R.C. § 162(m) (2000). In 1992, the SEC instituted a requirement that a firm’s proxy statement contain details of compensation for the Chief Executive Officer and the next four highest-paid executives.

126. Id.

127. Id. § 422(a).
The option may be granted only to an employee who must exercise the option while an employee or no later than three months after termination of employment.

- The option must be granted under a written plan document specifying the total number of shares that may be issued and the employees who are eligible to receive the options, and the plan must be approved by the stockholders within twelve months before or after plan adoption.
- The option must be granted within ten years of the earlier of adoption or shareholder approval, and the option must be exercisable only within ten years of the grant.\textsuperscript{129}
- The option exercise price must equal or exceed the fair market value of the underlying stock at the time of grant, i.e., the option cannot be in-the-money.
- The aggregate fair market value (determined as of the grant date) of stock bought by exercising ISOs that are exercisable for the first time cannot exceed $100,000 in a calendar year. If aggregate fair market value exceeds $100,000, IRC section 422(d) provides that such options are treated as non-statutory options.\textsuperscript{129}

Thus, ISOs qualify for exemption under section 162(m).\textsuperscript{130} NSOs might also qualify if they meet the requirements. Most executive stock options are NSOs because, unlike ISOs, the gains received from these options by executives can be deducted as compensation expenses by the granting firms. Another reason for the popularity of NSOs is their exemption from the $100,000 limit mentioned above.

Now we turn to the effect of backdating on taxation. Because backdating always seeks to obtain an exercise price lower than the stock price on the grant date, backdated options will be in-the-money ("discounted"). For this reason, backdating has three potential effects on taxation:

- First, options originally classified as ISOs no longer meet the non-discounting requirement. They should be classified as NSOs, with the result that the executives who had exercised the options owe taxes at the ordinary income tax rate at the time of exercise, as opposed to owing no taxes if the options were classified as ISOs.

- Second, options originally classified as NSOs and claimed as exempt to the $1 million limit imposed by section 162(m),\textsuperscript{131} no longer qualify for the exemption because they are in-the-money. The company owes taxes for amounts by which the stock gains from the exercise of these options exceed the $1 million limit.

\textsuperscript{128} The employee must not, at the time of the grant, own stock representing more than ten percent of the voting power of all stock outstanding (including stock constructively owned through attribution pursuant to Code section 424(d)), unless the option exercise price is at least 110\% of the fair market value and the option is not exercisable more than five years from the time of the grant.

\textsuperscript{129} I.R.C. § 422.

\textsuperscript{130} Id. § 162(m).

\textsuperscript{131} Id.
Third, options vesting on or after January 1, 2005, will now be in-the-money, thereby violating section 409A and resulting in their being considered deferred compensation. The executives are now subject to tax at the time of vesting (instead of at exercise) and, in addition, subject to a penalty tax of twenty percent of the compensation required to be included in gross income, plus interest on underpayment. The corporation may deduct the income reported by the executive as a compensation expense.

C. Financial Reporting and Disclosure Issues

There have been major changes since the 1990s in the way companies are required to account for option compensation for financial reporting purposes. Therefore, it is useful to briefly review the history of option accounting for financial reporting. Until the mid-1990s, option accounting for financial reporting purposes (as opposed to tax-reporting purposes) was done under the guidelines established by Accounting Principles Board Opinion 25 ("APB 25"). Under APB 25, options that were granted at-the-money or out-of-the-money had no impact at all on any of the financial statements. If options were granted in-the-money, the difference between the grant date stock price and the exercise price (called the intrinsic value of the option) had to be treated as an expense and deducted from income. Specifically, the intrinsic value (aggregated over all option grants) was amortized as a compensation expense evenly over the vesting period. This treatment lowered the reported income while creating two offsetting entries in the balance sheet: a deferred tax asset equal to the lowered tax due to the compensation expense and an offsetting increase in the shareholder equity.

In 1993, the Financial Accounting Standards Board ("FASB") proposed expensing employee stock options at their fair market value at the time of the grant. The proposal was so controversial that it received more than 1700 comment letters, most of which were opposed to mandatory expensing. The U.S. Senate proposed legislation in 1994 that would have blocked the FASB from forcing expensing. The Senate ultimately passed a nonbinding resolution that condemned the FASB proposal and threatened to revoke the FASB's independence status. In response, FASB rescinded the manda-

133. Id.
134. AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, ACCOUNTING PRINCIPLES BOARD OPINION NO. 25, ACCOUNTING FOR STOCK ISSUED TO EMPLOYEES (1972).
135. Id.
136. Compensation expense was not adjusted for subsequent changes in the market price of the underlying stock. Id.
137. Because no actual tax was paid at the time of the grant, a deferred tax asset was created.
tory expensing requirement, instead requiring only that the fair market value for the options be disclosed in the footnotes.\textsuperscript{140} In 1995, FASB issued the final standard, Statements of Financial Accounting Standards No. 123 ("SFAS 123").\textsuperscript{141} It encouraged companies to treat the fair market value as an expense at the time of the grant but allowed companies to report under APB 25 rules so long as footnotes contained a pro forma presentation of earnings as if SFAS 123 had been adopted. Initially, all companies continued to follow the APB 25 guidelines. In July 2002, several major companies announced that they planned to expense the fair market value of option grants as suggested by SFAS 123.

In 2003, FASB reversed its stance and unanimously voted to recommend expensing the fair market value of the options at the time of the grant. Although the draft proposal again caused widespread furor (close to 5000 comment letters on the draft and passage of a bill by the House of Representatives to limit expensing to options granted to the top five executives),\textsuperscript{142} FASB went ahead with the proposal and released SFAS 123R in December of 2004.\textsuperscript{143} After a delay by the SEC, the accounting rules of SFAS 123R became effective from the fiscal year starting December 15, 2005.

The APB 25 guidelines\textsuperscript{144} are the guidelines relevant to our discussion because our sample period ends in 2004 when very few companies were expensing options as per the SFAS 123 recommendations. Under these guidelines, financial statements must be modified in the following manner when backdating is discovered. The income statement must reflect the fact that the backdated options were granted in-the-money, requiring that the intrinsic value of the options be treated as compensation expense. This modification will lower the reported income and increase the stockholders’ equity. If a company involved in backdating had been expensing its options as suggested by SFAS 123\textsuperscript{145} (or as required by SFAS 123R),\textsuperscript{146} there is not likely to have been any effect on the financial statements because the company would have reported the value of the option using the backdated exercise price.

What economic impact will this restatement have (over and above the revelation that there was backdating) if option values are already disclosed in the footnotes as per SFAS 123? If, prior to the revelation of backdating, the analysts had assumed no backdating as they evaluated the values of


\textsuperscript{143} \textit{SHARE-BASED PAYMENT}, \textit{supra} note 36.

\textsuperscript{144} \textit{AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, ACCOUNTING PRINCIPLES BOARD OPINION No. 25, ACCOUNTING FOR STOCK ISSUED TO EMPLOYEES (1972)}.

\textsuperscript{145} \textit{ACCOUNTING FOR STOCK-BASED COMPENSATION, \textit{supra} note 20}.

\textsuperscript{146} \textit{SHARE-BASED PAYMENT, \textit{supra} note 36}.
stock option grants (especially to the top executives), they will now realize that the company has in reality issued options of greater value to the executives. This realization will result in a lowering of the stock price.\textsuperscript{147}

\textbf{D. Incentive Issues}

Economic theory recognizes that agents are effort-adverse and that rewards tied to performance are required to provide them the incentive to supply effort.\textsuperscript{148} However, it has been argued recently that top executives have captured the compensation process and have weakened the sensitivity of pay to performance.\textsuperscript{149} This decoupling of pay from performance has been achieved through several means such as cash and bonus compensation weakly correlated to performance, deferred compensation benefits, subsidized loans, and other perks.

Backdating is yet another way executives can reduce the sensitivity of pay to performance.\textsuperscript{150} By backdating, executives ensure some gains from their options even if the stock price does not increase at all; still worse, they can benefit even if the stock price falls. Although we will argue that a more direct effect of backdating is the overstatement of the firm's value through inflated earnings,\textsuperscript{151} it can be argued that the value loss due to improper incentives can be substantially higher. With poor incentives, executives may misallocate the firm's resources, which in turn can cause considerable loss in value. The revelation of backdating practices also exposes to investors the weak sensitivity of pay to performance and thus reduces their valuation of the firm due to concerns about misallocation of resources.

In addition to incentive effects, the revelation of backdating may also lower investors' perception of the ability of the firm's top executives. Able managers have less need to resort to dubious practices such as backdating to enhance their compensation and decouple it from performance. The loss of confidence in executives' ability by the revelation of backdating practices will also result in a reduction in stock price.

\textsuperscript{147} Aboody, Barth, and Kasznik show that the reporting of option grants in the footnotes as required by SFAS 123 had a negative impact on the stock price, suggesting that the recognition of the extent of options commitments does have an impact on stock price. David Aboody, Mary E. Barth & Ron Kasznik, \textit{SFAS No. 123 Stock-Based Compensation Expense and Equity Market Values, 79 ACCT. REV. 251} (2004).


\textsuperscript{149} \textit{Bebchuk & Fried, supra note 5}.

\textsuperscript{150} Holman Jenkins defends backdating as perfectly legitimate. He claims that it is merely an attempt to pay executives an optimal wage. Holman W. Jenkins, Jr., \textit{Backdating Revisited, WALL ST. J., July 12, 2006, at A17; Holman W. Jenkins, Jr., The "Backdating" Witch Hunt, WALL ST. J., June 21, 2006, at A13. Boards could have easily achieved this task by simply increasing the number of options paid. Lowering the exercise price either directly or through backdating alters the incentive effects.}

\textsuperscript{151} \textit{See infra Part III}.
III. Evidence on the Economic Impact of Dating Games

Our goal in this Part is to estimate and compare the potential benefit to executives from backdating to the loss incurred by investors by the disclosure that the firms may have been involved in backdating. To do this, we use a sample of firms identified in the media as being implicated in dating games. Although most publicity has focused on backdating, it is not clear whether these firms engaged in backdating or forward-dating, or both. For simplicity, we will refer to these firms as being implicated in backdating. The sample is obtained from a continuously updated list maintained by the Wall Street Journal on its website. 152 As of September 13, 2006, it contained eighty-nine firms which have been implicated in at least one of the following three ways: (1) The firm itself has acknowledged backdating; (2) the SEC has started a formal or informal investigation of the company; and (3) the Justice Department has started an investigation of the company. 153 Table 2 lists the companies in our sample.

152. Options Scorecard, supra note 10.
153. Id.
### TABLE 2
LIST OF COMPANIES REPORTEDLY IMPLICATED IN DATING GAMES

<table>
<thead>
<tr>
<th>No.</th>
<th>Company</th>
<th>No.</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activision</td>
<td>46</td>
<td>KB Home</td>
</tr>
<tr>
<td>2</td>
<td>Affiliated Computer Services</td>
<td>47</td>
<td>KLA-Tencor</td>
</tr>
<tr>
<td>3</td>
<td>Affymetrix</td>
<td>48</td>
<td>Linear Technology</td>
</tr>
<tr>
<td>4</td>
<td>Alkermes</td>
<td>49</td>
<td>Macrovision</td>
</tr>
<tr>
<td>5</td>
<td>Altera</td>
<td>50</td>
<td>Marvell Technology Group</td>
</tr>
<tr>
<td>6</td>
<td>American Tower</td>
<td>51</td>
<td>Maxim Integrated Products</td>
</tr>
<tr>
<td>7</td>
<td>Altera Technology</td>
<td>52</td>
<td>McAfee Inc.</td>
</tr>
<tr>
<td>8</td>
<td>Analog Devices</td>
<td>53</td>
<td>Medarex</td>
</tr>
<tr>
<td>9</td>
<td>Apollo Group</td>
<td>54</td>
<td>Meade Instruments</td>
</tr>
<tr>
<td>10</td>
<td>Apple Computer</td>
<td>55</td>
<td>Mercury Interactive</td>
</tr>
<tr>
<td>11</td>
<td>Applied Micro Circuits</td>
<td>56</td>
<td>Michaels Stores</td>
</tr>
<tr>
<td>12</td>
<td>Arthrocare</td>
<td>57</td>
<td>Monster Worldwide</td>
</tr>
<tr>
<td>13</td>
<td>Asyst Technologies</td>
<td>58</td>
<td>mysystems</td>
</tr>
<tr>
<td>14</td>
<td>Atmel</td>
<td>59</td>
<td>Newpark Resources</td>
</tr>
<tr>
<td>15</td>
<td>Bames &amp; Noble</td>
<td>60</td>
<td>Nvidia</td>
</tr>
<tr>
<td>16</td>
<td>Blue Coat Systems</td>
<td>61</td>
<td>Nyfix</td>
</tr>
<tr>
<td>17</td>
<td>Boston Communications</td>
<td>62</td>
<td>Openwave Systems</td>
</tr>
<tr>
<td>18</td>
<td>Broadcom</td>
<td>63</td>
<td>Power Integrations</td>
</tr>
<tr>
<td>19</td>
<td>Brocade Communications Systems</td>
<td>64</td>
<td>Progress Software</td>
</tr>
<tr>
<td>20</td>
<td>Brooks Automation</td>
<td>65</td>
<td>Quest Software</td>
</tr>
<tr>
<td>21</td>
<td>CA</td>
<td>66</td>
<td>QuickLogic</td>
</tr>
<tr>
<td>22</td>
<td>Cablevision</td>
<td>67</td>
<td>Rambus</td>
</tr>
<tr>
<td>23</td>
<td>Caremark Rx</td>
<td>68</td>
<td>Redback Networks</td>
</tr>
<tr>
<td>24</td>
<td>CEC Entertainment</td>
<td>69</td>
<td>Renal Care</td>
</tr>
<tr>
<td>25</td>
<td>Ceradyne</td>
<td>70</td>
<td>Restoration Hardware</td>
</tr>
<tr>
<td>26</td>
<td>The Cheesecake Factory</td>
<td>71</td>
<td>RSA Security</td>
</tr>
<tr>
<td>27</td>
<td>Chordiant Software</td>
<td>72</td>
<td>SafeNet</td>
</tr>
<tr>
<td>28</td>
<td>Clorox</td>
<td>73</td>
<td>Sanmina-SCI</td>
</tr>
<tr>
<td>29</td>
<td>CNET Networks</td>
<td>74</td>
<td>Semtech</td>
</tr>
<tr>
<td>30</td>
<td>Computer Sciences</td>
<td>75</td>
<td>Sepracor</td>
</tr>
<tr>
<td>31</td>
<td>Converse Technology</td>
<td>76</td>
<td>Sigma Designs</td>
</tr>
<tr>
<td>32</td>
<td>Corinthian Colleges</td>
<td>77</td>
<td>Stort-Nielsen</td>
</tr>
<tr>
<td>33</td>
<td>Crown Castle International</td>
<td>78</td>
<td>Sycamore Networks</td>
</tr>
<tr>
<td>34</td>
<td>Cyberonics</td>
<td>79</td>
<td>Sysview Technology</td>
</tr>
<tr>
<td>35</td>
<td>Delta Petroleum</td>
<td>80</td>
<td>Take-Two Interactive Software</td>
</tr>
<tr>
<td>36</td>
<td>Endocare</td>
<td>81</td>
<td>THO</td>
</tr>
<tr>
<td>37</td>
<td>Engineered Support Systems</td>
<td>82</td>
<td>Trident Microsystems</td>
</tr>
<tr>
<td>38</td>
<td>Equinix</td>
<td>83</td>
<td>UnitedHealth</td>
</tr>
<tr>
<td>39</td>
<td>Foundry Networks</td>
<td>84</td>
<td>Verint</td>
</tr>
<tr>
<td>40</td>
<td>F5 Networks</td>
<td>85</td>
<td>Vitesse Semiconductor</td>
</tr>
<tr>
<td>41</td>
<td>Home Depot</td>
<td>86</td>
<td>Witness Systems</td>
</tr>
<tr>
<td>42</td>
<td>Intuit</td>
<td>87</td>
<td>Xilinx</td>
</tr>
<tr>
<td>43</td>
<td>J2 Global</td>
<td>88</td>
<td>Zoran</td>
</tr>
<tr>
<td>44</td>
<td>Jabil Circuit</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Juniper Networks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The firms in this table were those listed on the *Wall Street Journal* web site as of September 13, 2006, as being implicated in options dating.
We do not have complete information about the various option grants that are under investigation and the dates they were awarded. Therefore, we cannot precisely estimate the extent of stealth compensation obtained by executives through backdating. Because our intent is to relate the executives' collective gain from backdating to investors' loss from the revelation of backdating, we need only estimate the order of magnitude of these gains. We therefore obtain the order of magnitude of these gains by estimating an upper bound of the stealth compensation for the period of 2000–2004 using the assumption that all grants during this period were backdated whenever backdating was profitable to the executive. We choose this period as it is almost equally divided between pre-SOX and post-SOX regimes. We then compare the executives' gains to the value loss incurred by investors when it was learned that these firms have been implicated in backdating.

A. Characteristics of Implicated Firms and Their Grants

Table 3 provides a summary of the options granted by our sample of firms between January 1, 2000, and December 31, 2004. The option grants data are obtained from a compilation of the filings made to the SEC to meet the section 16(a) requirements of the Exchange Act, purchased from Thompson Financial. The data contain all option grants by publicly traded firms reported on Form 4. In line with section 403 of SOX, the SEC amended the disclosure rules for beneficiary ownership reports. Reports filed under section 16(a) now require reporting electronically within two business days of getting notification of the grant. We applied two cleaning filters provided by Thompson to eliminate questionable data. We also eliminated firms for which stock return data are not available in the CRSP (Center for Research in Security Prices) database. The final sample contains 61,122 option grants from 80 of the 89 firms in our sample.

155. Id. § 78p(a)(2).
156. We eliminated all data with cleanse indicator codes of S and A. These data are identified because they did not meet Thompson's collection requirements, or numerous data elements were missing or invalid, or reasonable assumptions about the data could not be made.
### TABLE 3
**SUMMARY STATISTICS OF FIRMS IMPLICATED IN DATING GAMES**

<table>
<thead>
<tr>
<th>Period</th>
<th>Number of grants</th>
<th>Average shares per grant</th>
<th>Total shares granted</th>
<th>Number of firms</th>
<th>Average shares per firm</th>
<th>Average reporting lag (business days)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-SOX</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>2,901</td>
<td>19,834</td>
<td>57,538,513</td>
<td>68</td>
<td>846,155</td>
<td>214.9</td>
</tr>
<tr>
<td>2001</td>
<td>12,263</td>
<td>9,221</td>
<td>113,080,401</td>
<td>68</td>
<td>1,662,947</td>
<td>133.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25,270</td>
<td>9,747</td>
<td>246,307,874</td>
<td></td>
<td></td>
<td>130.0</td>
</tr>
<tr>
<td><strong>Post-SOX</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>16,506</td>
<td>4,976</td>
<td>82,127,535</td>
<td>71</td>
<td>1,156,726</td>
<td>8.1</td>
</tr>
<tr>
<td>2004</td>
<td>15,141</td>
<td>4,319</td>
<td>65,401,181</td>
<td>73</td>
<td>895,907</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>35,852</td>
<td>4,850</td>
<td>173,869,180</td>
<td></td>
<td></td>
<td>6.7</td>
</tr>
</tbody>
</table>

The table provides the summary statistics of option grants reported by insiders on Form 4 to meet disclosure requirements of section 16(a) of the Securities and Exchange Act and awarded from January 1, 2000, through December 2004 by firms listed in Table 2. “Total shares granted” are the shares that the insiders will receive upon exercise of the options. “Number of firms” indicates the firms that awarded options. “Reporting lag” is the number of business days between the grant date and the date on which the SEC received the filing.

Table 3 reports separately characteristics of pre-SOX and post-SOX option grants. From Table 3 it can be seen that total option grants by these firms peaked in 2002, the year SOX became effective. About 113 million options were granted that year by these firms and the number has dropped in subsequent years. The average grant size has also steadily declined over the years. The average reporting lag of the grants before SOX was 130 days. Not surprisingly, the two-day reporting requirement has considerably reduced the reporting lag after SOX.

Tables 4a and 4b breakdown the awards by firm size and executive type, before and after SOX. In Panel A of these tables, firms are classified into four groups based on their market capitalization at the beginning of the grant year (less than $100 million, $100 million to $500 million, $500 million to $3 billion, and greater than $3 billion). It can be seen from both tables that most of the implicated firms are in the two larger categories. The

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157. The total number of firms in Tables 4a and 4b is greater than our sample size of 89 because some firms are included in more than one category as their market capitalizations change over time.
average market capitalization of the implicated companies, measured at the beginning of the grant year, is about $4.2 billion.\textsuperscript{158} This result contrasts with results of earlier research indicating that most firms involved in backdating are smaller ones.\textsuperscript{159} Although it is probably not surprising that the larger firms are likely to be investigated first, it appears most of the firms likely to be involved in this practice are yet to be implicated.

**Table 4A**

**Award Structure and Reporting Behavior by Firm Size and Seniority of Executive—Pre-SOX**

<table>
<thead>
<tr>
<th>Panel A: By Firm Size</th>
<th>Market Capitalization</th>
<th>Number of Grants</th>
<th>Average Underlying Shares Per Grant</th>
<th>Number of Firms</th>
<th>Average Underlying Shares Per Firm</th>
<th>Total Shares Granted</th>
<th>Average Maturity (Years)</th>
<th>Average Reporting Lag (Business Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $100 million</td>
<td>229</td>
<td>11,407</td>
<td>7</td>
<td>373,176</td>
<td>2,612,230</td>
<td>10.0</td>
<td>125.4</td>
<td></td>
</tr>
<tr>
<td>Between $100 million and $500 million</td>
<td>4,975</td>
<td>4,061</td>
<td>24</td>
<td>841,785</td>
<td>20,202,833</td>
<td>9.9</td>
<td>117.1</td>
<td></td>
</tr>
<tr>
<td>Between $500 million and $3,000 million</td>
<td>6,855</td>
<td>9,145</td>
<td>37</td>
<td>1,694,212</td>
<td>62,685,856</td>
<td>9.7</td>
<td>120.8</td>
<td></td>
</tr>
<tr>
<td>&gt; $3,000 million</td>
<td>13,211</td>
<td>12,172</td>
<td>40</td>
<td>4,020,174</td>
<td>160,806,955</td>
<td>9.6</td>
<td>139.6</td>
<td></td>
</tr>
<tr>
<td>Whole Sample</td>
<td>25,270</td>
<td>9,747</td>
<td></td>
<td></td>
<td>246,307,874</td>
<td>9.7</td>
<td>130.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: By Seniority of Executive</th>
<th>Top Executives</th>
<th>Number of Grants</th>
<th>Average Underlying Shares Per Grant</th>
<th>Number of Firms</th>
<th>Average Underlying Shares Per Firm</th>
<th>Total Shares Granted</th>
<th>Average Maturity (Years)</th>
<th>Average Reporting Lag (Business Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Executives</td>
<td>6,259</td>
<td>21,355</td>
<td>71</td>
<td>1,882,505</td>
<td>133,657,844</td>
<td>9.5</td>
<td>117.2</td>
<td></td>
</tr>
<tr>
<td>Other Officers</td>
<td>19,011</td>
<td>5,926</td>
<td>74</td>
<td>1,522,298</td>
<td>112,650,030</td>
<td>9.8</td>
<td>134.2</td>
<td></td>
</tr>
<tr>
<td>Whole Sample</td>
<td>25,270</td>
<td>9,747</td>
<td></td>
<td></td>
<td>246,307,874</td>
<td>9.7</td>
<td>130.0</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{158} As a benchmark, there were about 900 firms traded in U.S. stock exchanges with market capitalization greater than $4.2 billion on October 13, 2006.

\textsuperscript{159} Narayanan & Seyhun, supra note 7; Narayanan & Seyhun, supra note 13.
### TABLE 4B
**Award Structure and Reporting Behavior by Firm Size and Seniority of Executive—Post-Sox**

<table>
<thead>
<tr>
<th>Panel A: By firm size</th>
<th>Market capitalization</th>
<th>Number of grants</th>
<th>Average underlying shares per grant</th>
<th>Number of firms</th>
<th>Average underlying shares per firm</th>
<th>Total shares granted</th>
<th>Average maturity (years)</th>
<th>Average reporting lag (business days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $100 million</td>
<td>3,218</td>
<td>2,586</td>
<td>9</td>
<td>924,461</td>
<td>8,320,145</td>
<td>10.0</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Between $100 and $500 million</td>
<td>10,626</td>
<td>3,302</td>
<td>23</td>
<td>1,525,702</td>
<td>35,091,147</td>
<td>9.8</td>
<td>8.8</td>
<td></td>
</tr>
<tr>
<td>Between $500 and $3000 million</td>
<td>14,095</td>
<td>5,923</td>
<td>36</td>
<td>2,319,139</td>
<td>83,489,013</td>
<td>9.5</td>
<td>8.1</td>
<td></td>
</tr>
<tr>
<td>&gt; $3000 million</td>
<td>7,913</td>
<td>5,936</td>
<td>22</td>
<td>2,134,949</td>
<td>46,968,875</td>
<td>9.5</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>Whole sample</td>
<td>35,852</td>
<td>4,850</td>
<td></td>
<td>173,869,180</td>
<td>9.7</td>
<td>6.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: By seniority of executive</th>
<th>Top executives</th>
<th>Other officers</th>
<th>Whole sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8,332</td>
<td>27,520</td>
<td>35,852</td>
</tr>
<tr>
<td>Number of grants</td>
<td>10,106</td>
<td>3,258</td>
<td>4,850</td>
</tr>
<tr>
<td>Average underlying shares per grant</td>
<td>1,186,016</td>
<td>1,211,649</td>
<td>173,869,180</td>
</tr>
<tr>
<td>Number of firms</td>
<td>71</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Average maturity (years)</td>
<td>84,207,152</td>
<td>89,662,028</td>
<td></td>
</tr>
<tr>
<td>Average reporting lag (business days)</td>
<td>9.6</td>
<td>9.7</td>
<td>9.7</td>
</tr>
</tbody>
</table>

The sample includes grants reported by insiders of firms listed in Table 2 on Form 4 to meet the section 16(a) requirements of the Securities and Exchange Act of 1934. The sample contains eighty of the eighty-nine firms in Table 2 with daily returns available in the Center for Research in Security Prices ("CRSP") database. Table 4a provides the data for the pre-Sox sample of 25,270 grants, awarded from January 1, 2000, through August 28, 2002, while Table 4b provides the data for the post-Sox sample of 35,852 grants, awarded from August 29, 2002, through December 31, 2004. Panel A of each table reports the award sizes, average maturity, and average reporting lag for different firm size groups as measured by the market capitalization of the granting firm at the end of the year prior to the grant year. “Total shares granted” are the shares that the insiders will receive upon exercise of the options. “Number of firms” indicates the firms that awarded options. “Reporting lag” is the number of business days between the grant date and the date on which the SEC received the filing. Panel B of each table provides the same data for top executives and others. Top executives include those with the titles (on the grant date) of Chief Executive Officers, Chairman of the Board, Chief Financial Officers, Presidents, and Officer-Directors.

Panel B of Tables 4a and 4b divides the sample on the basis of the insiders’ seniority, classifying those with the titles (on the grant date) of Chief Executive Officers, Chairman of the Board, Chief Financial Officers, Presi-
dents, and Officer-Directors as "top executives," and separating this group from all others in the sample. About twenty-five percent of the option grants in our sample are to top executives. It can be seen that top executives are given much bigger grants than other executives—about four times as much on average.

B. Stock Price Behavior of Implicated Firms Around Option Grant Dates

Figures 1 and 2 show the stock performance around the grant date for our sample of firms. Data on stock market returns are obtained from the CRSP database. Both figures show the cumulative mean raw returns from ninety trading days prior to the reported grant date (date 0) to ninety days after the grant date. Each option grant is treated as an observation in Figure 1—if a firm awards more than one grant on a given day, the return of that firm will be counted more than once. By contrast, in Figure 2 each firm-grant date is treated as an observation—regardless of the number of grants a firm awards in a given day, the return of that firm is counted only once for that day.

**FIGURE 1**
**STOCK RETURNS AROUND GRANT DATE OF STOCK OPTIONS (OBSERVATION UNIT: GRANT)**

The figure plots cumulative raw abnormal stock returns around the option grant date (day 0) of eighty-nine firms listed on the Wall Street Journal web site on September 13, 2006, as having been implicated in dating games. The sample includes grants reported by insiders on Form 4 to meet the section 16(a) requirements of the Exchange Act. The sample is limited
to grants by firms with daily returns available in the CRSP database and contains 61,122 grants awarded during the period from January 1, 2000, through December 31, 2004, with 25,270 grants pre-SOX and 35,852 grants post-SOX. The observation unit is the individual grant. Event days are trading days. Cumulative market-adjusted abnormal return is computed as the difference between raw return and the return to an equally-weighted index of NYSE, AMEX and NASDAQ stocks.

**Figure 2**

**Stock Returns around Grant Date of Stock Options**

(Observation Unit: Firm-Grants)

The figure plots cumulative raw abnormal stock returns around the option grant date (day 0) of eighty-nine firms listed on the *Wall Street Journal* web site on September 13, 2006, as having been implicated in dating games. The sample includes grants reported by insiders on Form 4 to meet the section 16(a) requirements of the Exchange Act. The sample is limited to grants by firms with daily returns available in the CRSP database. The observation unit is the firm-grant date: each grant date of a firm is treated as an event. The sample contains 1273 firm-grant dates during the period from January 1, 2000, through December 31, 2004, with 695 firm-grant dates pre-SOX and 578 firm-grant dates post-SOX. Event days are trading days. Cumulative market-adjusted abnormal return is computed as the difference between raw return and the return to an equally-weighted index of NYSE, AMEX and NASDAQ stocks.

If there is no manipulation, we should see no patterns on the grant date. On some grant days stock prices will go up and on some grant days they will go down, with no pattern on average. However, as we can see from the figures, there is a very sharp V-shaped pattern around the grant date, with
the trough of the V being on the grant date. This means that, on average, the executives of these firms are receiving grants on the dates when the stock price is the lowest compared to its price on the surrounding days. It is interesting to note that the pattern persists even after SOX. Although the V-pattern, especially before the grant day, is somewhat muted after SOX, the rise for thirty days after the grant date is not that different from pre-SOX numbers. This result is consistent with the conclusion of Narayanan and Seyhun that SOX has not eliminated the practice.\footnote{160}

A comparison between Figures 1 and 2 shows that the magnitudes of the pre- and post-grant returns are greater when the grant is the observation unit. For example, the twenty-day post-grant return in Figure 1 is about 15.9\% for pre-SOX grants and about 11\% for post-SOX grants; the same numbers in Figure 2 are 11.6\% and 5.5\%, respectively. These numbers suggest that there is more backdating when more awards are made on a given day.

C. Estimates of Stealth Compensation from Backdating

As stated earlier, we do not have information regarding the grants being investigated, whether they are being investigated for backdating or forward-dating, or the number of days by which the grants were allegedly misdated. Therefore, we will estimate the stealth compensation for the 2000-2004 period under the assumption that all grants during this period were backdated whenever backdating was profitable to executives. We estimate the stealth compensation for different assumed days of backdating, ranging from five to ninety business days. This gives us an upper bound of the stealth compensation from backdating.

In order to calculate the stealth compensation from backdating, we need first to calculate the value of the options that executives in our sample firms received during 2000-2004. We use the Black-Scholes formula to compute option values.\footnote{161} The formula needs six inputs: grant date stock price, exercise price of option, time to maturity of option, volatility of stock returns, the risk-free rate, and dividend yield. We know the exercise price, the maturity of the option, and the grant date from the executives' Form 4 filing. We obtain the grant date stock price from CRSP. The volatility is estimated as the volatility of stock returns during the ninety-day period before the grant date. A risk-free rate of 5\% is used.\footnote{162} We assume that the dividend yield is zero for all the stocks in our sample.\footnote{163} Using these inputs in the Black-Scholes formula, we

\footnote{160} Narayanan & Seyhun, supra note 18, at 6.
\footnote{161} SFAS 123R accepts the use of the Black-Scholes model to value executive stock options. \textit{SHARE-BASED PAYMENT}, supra note 36.
\footnote{162} The ten-year Treasury bond yield has fluctuated between four percent and six percent during 2000-2004.
\footnote{163} Of the eighty-nine firms in the sample, only ten firms paid cash dividends during this period. In only one of these ten cases did the dividend yield exceed 0.6\%. Hence, the error from ignoring dividends is negligible. In any case, since we are seeking an upper bound, ignoring cash dividends of these ten firms has no material impact on our results.
compute the value of each option and multiply it by the number of options in each grant to obtain the value of each option grant.\textsuperscript{164}

\textbf{Table 5}

\textbf{Potential Stealth Compensation from Backdating}

<table>
<thead>
<tr>
<th></th>
<th>Pre-SOX</th>
<th>Post-SOX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total value of options granted (millions)</td>
<td>$6,555</td>
<td>$2,188</td>
</tr>
<tr>
<td>Average value of an option</td>
<td>$16.84</td>
<td>$11.13</td>
</tr>
<tr>
<td>Number of grants</td>
<td>25,049</td>
<td>35,422</td>
</tr>
<tr>
<td>Average value of a grant</td>
<td>$261,676</td>
<td>$61,757</td>
</tr>
<tr>
<td>Number of grant days</td>
<td>658</td>
<td>558</td>
</tr>
<tr>
<td>Average value of options granted by a firm per grant date (millions)</td>
<td>9.96</td>
<td>3.92</td>
</tr>
<tr>
<td>Fraction of grant dates on which backdating would have been profitable</td>
<td>64%-68%</td>
<td>60%-70%</td>
</tr>
<tr>
<td>Total benefit from potential backdating (millions)</td>
<td>$64-$115</td>
<td>$27-$85</td>
</tr>
<tr>
<td>Average benefit from potential backdating on each grant date</td>
<td>$147,353-$296,126</td>
<td>$81,014-$217,135</td>
</tr>
<tr>
<td>Average benefit from potential backdating as a fraction of grant value</td>
<td>1.30%-3.96%</td>
<td>1.78%-6.45%</td>
</tr>
</tbody>
</table>

The sample includes grants reported by insiders of firms listed in Table 2 on Form 4 to meet the section 16(a) requirements of the Securities and Exchange Act of 1934. The sample is limited to grants by firms with daily returns available in the CRSP database and awarded from January 1, 2000, through December 31, 2004, and grants for which exercise price and maturity data are available. Options values are calculated using the Black-Scholes formula. The potential benefit from backdating is calculated by assuming that backdating is resorted to whenever profitable. The range of values given in the last four rows results from different assumed backdating periods: five, ten, twenty, thirty, forty, fifty, and ninety business days.

The results of the option valuation are presented in Table 5. The table shows stark differences in the value of options and option grants before and after SOX. Although the total value of options granted prior to SOX was $6,555 million it was only $2,188 million after SOX, even though the two periods are approximately the same length. Moreover, although the average value of a single grant was $261,676 prior to SOX, it dropped to $61,757 after SOX—less than 25\% of the pre-SOX value. However, the value of options granted by a firm on a single grant date recorded only a 40\% drop, from $9.96 million to $3.92 million. These figures, combined with the re-

\textsuperscript{164} Because some entries for exercise price and maturity are missing in the Form 4 filings, we are able to value only 25,049 grants on 658 grant days before SOX (compared to 25,270 grants on 695 grant days in the whole sample), and 35,422 grants on 558 grant dates after SOX (compared to 35,852 grants on 578 grant days in the whole sample).
duction in average options per grant reported in Table 3, indicate that there are fewer options being granted, but more executives are receiving grants.\textsuperscript{165}

We compute an upper bound to the average benefit from potential backdating during our sample period as follows. We start by assuming that all option grants are backdated if backdating will increase the value of the options, that is, if backdating will result in a lower exercise price. This will happen only if the stock price has been rising up to the grant date. It is reasonable to assume that backdating will result in the exercise price being lowered by the same proportion as the drop in the stock price. An example will clarify our calculation.

Suppose an at-the-money option grant in our sample has been backdated by twenty business days. Let the stock price on the manager-reported grant date be $10, which is also the reported exercise price. If it had not been backdated, the exercise price would have been the stock price that prevailed twenty days after the reported grant date, which was $12. This means the stock return during the backdating period of twenty days was 20%. It also means that the exercise price without backdating would have been 20% greater than $10, here $12, to keep the options at-the-money. Therefore, we can obtain the exercise price of the option in the absence of backdating by increasing the reported exercise price by the stock return during the period of backdating.

Because we do not know how many days the options were backdated, we calculate the upper bound for different assumed backdating periods: five, ten, twenty, thirty, forty, fifty, and ninety business days. We assume there was no backdating on a grant date if the stock return for an assumed backdating period following the grant date was negative, because backdating is pointless if the stock price was falling after the reported grant date. The fraction of reported grant dates that would have been beneficial to executives if they were backdated ranged from 64% to 68% pre-SOX, depending on the assumed backdating period. The range is similar in the post-SOX sample, which ranged from 60% to 70%.\textsuperscript{166}

As can be seen from Table 5, the upper bound of the average stealth compensation to all executives of a firm on each grant date from potential backdating ranged from $147,353 if backdated for five days to $296,126 if backdated for ninety days in the pre-SOX sample. The upper bound of the potential benefit ranged from $81,014 to $217,135 in the post-SOX sample. This benefit is on average 1.30% to 3.96% of the value of the options the executives received during the pre-SOX period and 1.78% to 6.45% for the post-SOX period. In aggregate, the upper bound of the potential benefit from backdating ranged from $64 million to $115 million during the pre-SOX period from January 1, 2000, and $27 million to $85 million during the

\textsuperscript{165} Some of the drop in the value of a grant is explained by the reduction in the average value of an individual option (the average option value has dropped from $16.84 to $11.53). The drop in the average value of an individual option can be partly attributed to the drop in volatility (from 88% pre-SOX to 63% post-SOX).

\textsuperscript{166} The benefit from backdating increases monotonically with the assumed backdating period.
post-SOX period up to December 31, 2004. Taking the most optimistic estimate, the total aggregate potential benefit of $200 million between 2000 and 2004 translates to about $2.5 million per firm for the 80 firms for which option valuation could be done. This averages to $0.5 million per year per firm during this period.

D. Impact of Revelation of Backdating on Shareholder Value

Figure 3 shows the impact of the revelation of backdating on shareholder value. This figure plots the cumulative market-adjusted average return for ten days before and ten days after the announcement of backdating (day 0). We define the announcement date as the first day that at least one of the following events is reported in the media: (1) a direct or indirect acknowledgement by the company that it has backdated options;\textsuperscript{167} (2) an announcement that SEC is formally or informally investigating the firm for backdating; or (3) an announcement that the Justice Department is investigating the firm for backdating. The market-adjusted daily abnormal return ("AR") for each firm is computed for each day during the twenty-one-day period of \([-10, +10]\), where day 0 is the grant date, as follows:\textsuperscript{168}

\[
AR_{i,t} = (r_{i,t} - r_{m,t}),
\]

where \(r_{i,t}\) is the return to stock \(i\) for day \(t\), and \(r_{m,t}\) is the with-dividend return to Standard and Poor's 500 Index for day \(t\). The individual stock ARs for each event day are then averaged across all the stocks in our sample to obtain an average AR for each event day. These ARs are then cumulated to obtain the Cumulative Abnormal Return ("CAR") for each event day during the twenty-one-day window. Stock price and Index data were obtained from the Yahoo! Finance web site.\textsuperscript{169}

\textsuperscript{167} An indirect acknowledgement includes such announcements as senior executives being fired or put on administrative leave and the need to restate financial statements or take a charge. For the purposes of this figure, we do not consider as an event any announcements by companies that they are just investigating their option granting practices. Since the scandal broke, many companies have announced that they will investigate their own option granting practices, so announcement of self-investigations does not necessarily imply that there was anything wrong with their practices.

\textsuperscript{168} We measure returns ten days before the announcement date to account for any news releases that we did not find and to capture the effect on stock prices of news leakages. We measure returns ten days after the announcement date to capture the full effect of the announcement on stock prices.

\textsuperscript{169} http://finance.yahoo.com (last visited Jan. 12, 2007).
The figure plots cumulative market-adjusted abnormal stock returns around the announcement date that the firm is implicated in dating games (day 0). The sample includes eighty-four public firms listed on the Wall Street Journal website on September 13, 2006, as having been implicated in dating games. Event days are trading days. Cumulative market-adjusted abnormal return is computed as the difference between raw return and the return to the Standard and Poor's 500 index. The announcement date is the earliest of one of the following three dates: (i) the date the firm acknowledges backdating; (ii) the date it is first reported that the SEC is formally or informally investigating the firm for irregularities in options dating; (iii) the date it is first reported that the Justice Department is investigating the firm for irregularities in options dating.

Figure 3 shows that over a twenty-one-day period surrounding the announcement date, the average cumulative abnormal return of the stock of the firms implicated in backdating was about $-7\%$. This implies that, adjusted for market movements, the average drop in market capitalizations of these firms was $7\%$ on announcement of investigation by the SEC or the Justice Department or acknowledgment of backdating by the company itself. The median stock return over the twenty-one-day period was about $-6\%$. Sixty-three of the eighty-four firms in the sample record a negative CAR. Some

170. Of the eighty-nine firms in our sample, two were acquired by the time they were implicated in backdating and a third company received an acquisition offer around the time it was implicated. We could not obtain precise announcement dates for two firms. The final sample used for Figure 3 therefore contains eighty-four firms.
firms had dramatic cumulative market-adjusted drops: Vitesse Semiconductor dropped 58% and Quicklogic dropped 40%.

Interestingly, Figure 3 also shows that most of the stock price drop occurs before the first public disclosure of the backdating accusations. About 6% of the total 7% drop occurs during the ten days prior to the first public disclosure. This finding suggests that some insiders or hedge funds may be receiving word of the likely filing of backdating complaints and either selling or shorting the stock in advance. Intense selling activity is likely to drive the price down, as shown in Figure 3.

We also computed the value loss in the market capitalization of these firms. The market capitalization of the firms was measured eleven days before the announcement date, just before the beginning of the measurement period in Figure 3. By multiplying the market capitalization of each firm by its cumulative abnormal return over the twenty-one-day measurement period, we obtain an estimate of the value loss of each firm upon the announcement that it is implicated in backdating. The average market capitalization at the beginning of the measurement period was about $6.3 billion and the average value loss was about $389 million. Stockholders of each of the ten biggest losers sustained a loss of $1 billion or more.

How does the value loss from being implicated in backdating compare to the potential benefits from backdating? As we saw in Table 5, the upper bound of the aggregate potential benefit for all firms in our sample from backdating during the 2000-2004 period was $200 million. This figure was obtained by assuming that all grants that benefit from backdating are backdated and that they are backdated for ninety days. This translates to less than $2.5 million per firm in our sample during this period or $0.5 million per year per firm. When compared to the $389 million average loss from being implicated in backdating, the upper bound of the potential benefit of $2.5 million is negligible (about 0.6% of the value loss). It appears that the stockholders are paying a substantial price for managerial indiscretions of rather small benefit to the executives of these firms. If outrage costs are what make executives seek camouflaged compensation arrangements, with or without the approval of the board, it appears to be a poor trade-off. For a benefit of about $500,000 a year to the executives, shareholders are being put at risk to the tune of $400 million.

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171. The figures may be somewhat higher if we picked the best backdating period for each firm-grant date.

172. See BECHUK & FRIED, supra note 5.

173. One cannot help but compare this scenario with Martha Stewart’s conviction for obstructing an investigation by the U.S. Attorney for an alleged gain of less than $50,000 from insider trading. This figure was miniscule compared to her reported wealth, and resulted in a value loss of about 40% to the stockholders of Martha Stewart Omniliiving during June 2002 when news surfaced of her questionable sale of ImClone stock.
IV. Remedies

In this Part we propose some remedies to address not only dating games such as backdating and forward-dating, but also practices such as timing or springloading. For the purposes of this discussion, we define springloading as the practice of scheduling an option grant just before a positive news release or just after a negative news release, or the practice of scheduling a positive news release just after a scheduled grant date or a negative news release just before a scheduled grant date.

One goal of SOX was to bring greater transparency into executive compensation. The rule requiring executive options to be reported within two days of the grant was clearly intended to achieve this. If this rule were strictly adhered to, backdating would not be very profitable to the executives. Although this rule has reduced backdating practices, it has not fully eliminated it. As reported in earlier research by Narayanan and Seyhun, about twenty percent of the grants were not reported on time, which allows for potentially profitable backdating.

We note that the duly-authorized practice of backdating or forward-dating by itself is not illegal. However, it is important that the compensation process be an arms-length transaction between boards or compensation committees and the executives being paid. Regulation needs to prevent the executives from capturing the compensation process and executing an end run around insider trading laws through springloading practices.

Traditionally, regulators have assumed that executive compensation is an arms-length transaction. As a result of this view, any shares received through executive compensation have been viewed differently than shares the executive purchased in the open market, and they are exempt from certain insider trading rules. For instance, executives are exempt from the short-swing profits rule under section 16(b) of the Exchange Act when the shares are obtained from option exercises, as long as options were awarded more than six months ago. However, the backdating scandal is likely to change this view.

First, shares acquired through option exercises should lose their exemption status with respect to section 16(b). This exemption enhances insiders’ ability to engage in profitable trading by using their special information. To the extent managers influence important parameters of the compensation packages, managers can influence vesting decisions, and therefore can influence timing of the option exercises. Consequently, it makes sense to treat compensation-related shares as similar to open-market-purchased shares.

Second, some commentators have argued that springloading itself can be viewed as a form of insider trading. After all, in both situations, insiders obtain undervalued shares as a result of their privileged information, either

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175. Narayanan & Seyhun, supra note 7, at 15.
through an option award by the company (springloading) or open-market purchase of common shares (insider trading). The SEC should also promulgate new rules regarding springloading that bring the practice clearly and explicitly under the definition of illegal insider trading. We believe these potential changes will be quite effective in curtailing the practice of springloading.

The easiest way to limit clandestine backdating and forward-dating is to require companies to report two critical dates: the date the board or compensation committee finalized the option award details and the grant date as decided by them. If these dates are the same, then any backdating or forward-dating is not being authorized by the board. If the two dates are different, then the board intended it to be so, and as long as all disclosure, accounting, and tax requirements are met, it is legitimate; investors can decide for themselves whether such compensation is optimal or not. Any backdating or forward-dating from the board-approved grant date constitutes deception.

The SEC voted on July 26, 2006, to approve a major overhaul of executive compensation disclosure rules. The original proposal floated by the SEC in January 2006 for comments did not contain any provisions aimed at curbing nefarious dating games. It only required the disclosure of the grant date. However, the July version included a provision requiring disclosure of both the grant date and the decision date (the date the board or compensation committee finalized details of the compensation). In addition, the new rules as proposed in July require disclosure of the grant date fair value and the closing market price on the grant date if it is greater than the exercise price of the award. Furthermore, if the exercise price of an option grant is not the grant date closing market price per share, the rules require a description of the methodology for determining the exercise price. It appears that the furor created during the early months of 2006 resulted in amendments to the rules to curb clandestine dating games.

Although the above-mentioned rules will almost certainly eliminate clandestine backdating or forward-dating, they do nothing to limit springloading. Two additional remedies are needed to curb or eliminate springloading.

First, annual option awards should not be effective on a single date. Single annual awards increase the incentive to shift release of company-related information to maximize the value of option grants. Instead, annual option awards could be divided into twelve equal monthly installments and awarded on a monthly basis at the same time executives receive their basic pay. Spreading the awards throughout the year will eliminate the executives’ incentives to play springloading games. To give an example, if executives announce some bad news before the February award, this will benefit the February options by lowering their exercise price but hurt the previous January options by pushing them out of the money. Similarly, shifting the release of good news to a date after the February award will benefit the Feb-

ruary options by pushing these options into the money but will hurt the value of March options by increasing their exercise price.

A second remedy for the springloading practice is to treat grants of compensation options, as well as the acquisition of shares through exercises of compensation options, as falling under the general insider trading provisions of section 10(b). Just as insiders can be subject to civil and criminal proceedings arising from timely purchase or sale of common shares, this remedy exposes insiders to civil or criminal liabilities if their option awards also follow timely stock price patterns. Given the degree of influence insiders have exerted over their compensation packages, this approach seems reasonable. Ultimately, managers need to convince their shareholders that they have earned their well-deserved compensation packages fairly by creating wealth for them and not through manipulative means.

CONCLUSION

Recent research has established that many executives exert both legal and illegal influence over their compensation. In this Article we focus mostly on illegal means of influencing compensation. Illegal influence over compensation has taken the form of clandestine backdating and forward-dating option grants with or without the knowledge of the board. Springloading falls into a gray area between legal and illegal practices. Many executives have engaged in these practices to further increase the size of their option awards. Illegal influence over compensation decisions raises further issues related to civil and criminal liabilities, tax payments, corporate disclosure, and managerial incentives.

We also compare estimates of the size of the illegally obtained executive compensation with the damage shareholders have suffered when these practices are disclosed. We estimate that the upper bound of managerial benefit derived from these illegal practices averages about $2.5 million dollars per firm over a five-year period. In contrast, when these practices become public, the damages borne by the shareholders average about $400 million per firm. Hence, our evidence suggests that managerial theft is not a zero-sum game, but involves huge dead-weight losses for the shareholders.

Finally, we suggest various remedies to eliminate these practices. Greater transparency with regard to the intent of the board through greater disclosure is likely to control many forms of misdating. In addition, spreading the option awards throughout the year and defining springloading to be illegal insider trading is likely to curb most forms of illegal influence over compensation.
