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# Reputation Penalties for Poor Monitoring of Executive Pay: Evidence from Option Backdating

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## ABSTRACT:

We study whether outside directors are held accountable for poor monitoring of executive compensation by examining the reputation penalties to directors of firms involved in the option backdating (BD) scandal of 2006-2007. We find that at firms involved in BD, significant penalties accrued to compensation committee members (particularly those who served during the BD period) both in terms of votes withheld when up for election, and in terms of turnover, especially in more severe cases of BD. However, directors of BD firms did not suffer similar penalties at non-BD firms, raising the question of whether reputation penalties for poor oversight of executive pay are large enough to affect the ex ante incentives of directors.

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## 1. Introduction

Are outside directors held accountable for poor monitoring of executive pay? A long held view is that poor monitoring will generally result in labor market penalties (Fama, 1980; Fama and Jensen, 1983). Consistent with this view, prior research suggests that outside directors are held accountable for a variety of corporate failures.<sup>1</sup> However, there is no evidence on whether outside directors face reputation penalties for poor oversight of executive pay. Bebchuk and Fried (2004) have argued that “directors are unlikely to bear reputation costs” for their CEO pay decisions because most of these decisions can be justified on economic grounds *ex post*, and are often “camouflaged.”<sup>2</sup> They thus do not generate the “outrage costs” that, according to Bebchuk and Fried (2004), are the only significant constraint on CEO pay.

We use the recent option backdating (hereafter BD) scandal to examine whether outside directors are held accountable for poor monitoring of executive pay. BD refers to the practice of selecting as the option grant date a past date when the stock price was particularly low, which, because options are usually granted at-the-money, results in a low exercise price (Hall and Murphy, 2000; Heron and Lie, 2007). Essentially, BD firms issued in-the-money options under the false pretense that the options were issued in the past as at-the-money options.

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<sup>1</sup> See Gilson, 1990; Kaplan and Reishus, 1990; Farrell and Whidbee, 2000; Coles and Hoi, 2003; Ferris, Jagannathan, and Pritchard, 2003; Harford, 2003; Yermack, 2004; Srinivasan, 2005; Fich and Shivdasani, 2007; Del Guercio, Seery, and Woidtke, 2008; Ertimur, Ferri, and Stubben, 2010. Other forms of penalties that directors can incur include shareholder lawsuits and SEC enforcement actions, but prior studies conclude that the related financial losses borne by outside directors are generally small, if any (Srinivasan, 2005; Black, Cheffins, and Klausner, 2006).

<sup>2</sup> In the spirit of Bebchuk and Fried (2004), we use “pay decisions” to refer not only to explicit choices knowingly made by boards, but also to compensation practices that stem from boards’ reluctance to question the details of compensation packages or push for compensation packages with a stronger link between pay and performance.

The BD scandal provides a powerful setting in which to examine the reputation penalties for poor monitoring of executive pay. First, unlike other controversial compensation practices (e.g., repricing of options), BD is hard to justify on economic grounds. Although issuing in-the-money options per se is not illegal, and can be beneficial in some cases (Dierker and Hemmer, 2007; Gao and Mahmudi, 2008), if not properly approved, disclosed, and accounted for it can violate accounting rules and securities and tax laws (Narayanan, Schipani, and Seyhun, 2007). Indeed, upon revelation of their involvement in BD, firms' stock prices dropped significantly (Narayanan et al., 2007; Bernile and Jarrell, 2009; Carow, Heron, Lie, and Neal, 2009; Pool, Wang, and Xie, 2009). Second, BD provides a rare opportunity to observe a practice that "served to camouflage both the performance insensitivity and amount of executive pay" (Fried, 2008, p. 866). Details of the most egregious cases, profiled by the *Wall Street Journal* (WSJ) in a series of front-page, Pulitzer Prize winning stories, were often shocking.<sup>3</sup> Finally, evidence that backdating conferred an extra benefit on managers rather than substituting for other forms of compensation (Bebchuk, Grinstein, and Peyer, 2010), that some firms likely engaged in backdating without being detected (Bizjak, Lemmon, and Whitby, 2009; Heron and Lie, 2009; Bebchuk et al., 2010), that director interlocks likely contributed to the spread of the backdating practice (Bizjak et al., 2009),

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<sup>3</sup> At Converse Technology, the CEO orchestrated a decade-long fraudulent BD scheme involving falsified documents and fake employee names. As he fled to Namibia, the FBI classified him as a wanted fugitive (Wall Street Journal, 2006a). At UnitedHealth Group, the CEO had not only received backdated options, but also suspended an out-of-the-money option grant in exchange for a new in-the-money grant only to re-activate the suspended grant when in-the-money again (essentially doubling the size of the award). Also, details emerged about conflicts of interest involving many board members, such as previously undisclosed information that the chair of the compensation committee was managing the CEO's personal wealth (Ferri, 2006).

and that BD is more likely when directors and CEOs receive options around the same time (Bebchuk et al., 2010) arguably sparked further “outrage” about BD.

In addition to being a controversial compensation practice, BD, because it results in overstatement of net income (usually requiring a restatement), constitutes financial misrepresentation.<sup>4</sup> This makes our setting similar in spirit to Fich and Shivdasani (2007), who investigate reputation penalties to outside directors of firms sued for alleged financial misrepresentation under rule 10(b)5 of the Securities and Exchange Act, and to Srinivasan (2005), who examines reputation penalties to directors of firms involved in financial restatements. Hence, ex ante, it is unclear whether investors would view BD as a compensation failure or a misreporting failure, a question we examine empirically by distinguishing between penalties incurred by compensation committees and those incurred by audit committees.

Although BD can be a powerful setting in which to examine reputation penalties to directors, conceptually it is not obvious that such penalties will be imposed. If shareholders believe that directors primarily serve an advisory role, or that the ability to monitor compensation and reporting practices is de facto limited (e.g., due to lack of time and expertise, or to management control of information flow), they may not penalize otherwise valuable directors for failure to perform an idealized monitoring function. Indeed, in a number of cases the BD investigation revealed that directors did not (and perhaps could not) know they were approving backdated option grants or the accounting and legal implications thereof. Moreover, even if shareholders believed

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<sup>4</sup> Whether BD constitutes fraud is a more complex question. In the aftermath of the BD revelations, federal judges clarified that the occurrence of BD per se is not enough to establish fraud in a legal sense (Taub and Cook, 2007). Ex post, most investigations concluded that BD was the result of a “loose” option-granting process, fraud being ascertained only in few cases, such as Mercury Interactive and Brocade. For a discussion of whether and when BD constitutes fraud (which argues that BD may not be defined as fraud, even in egregious cases), see Henning (2006).

that directors should be held accountable for weak oversight of the pay-setting and reporting process, their power to impose certain penalties (e.g., replace directors) could be limited (Bebchuk, 2005). Ultimately, whether shareholders held outside directors accountable for the BD scandal, which directors (compensation vs. audit committee) were held most accountable, and the extent of penalties imposed, if any, are empirical questions.

To investigate these questions, using a sample of approximately 180 firms that publicly announced a BD investigation, we analyze the reputation penalties incurred by their outside directors both at BD firms and at other (non-BD) firms. Our first set of analyses examines the association between BD and votes withheld from directors up for election, a measure of damage to reputational capital (Bernile and Jarrell, 2009).<sup>5</sup> We find the percentage of votes withheld is twice as high for directors of BD firms as for their counterparts at non-BD firms. The penalty accrues to all directors, but seems to follow a “pecking order.” It is highest for directors who sat on the compensation committee (CC) when BD took place (often many years before its discovery), followed by current CC members who were not on the board during the BD period (but who are responsible for the actions taken to address the BD problem), and then all other BD directors. These findings suggest that voting shareholders distinguish between different degrees of responsibility for past compensation decisions, and view BD primarily as a monitoring failure of the CC rather than the audit committee (AC), consistent with the notion that the BD practice was driven more by compensation-related than by financial reporting-related motives (Walker, 2007; Bernile and Jarrell, 2009).

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<sup>5</sup> Shareholders are increasingly using votes withheld to reflect their assessment of directors’ performance, and boards have been responding to high votes withheld (Grundfest, 1993; Del Guercio et al., 2008; Cai, Garner, and Walkling, 2009; Fischer, Gramlich, Miller, and White, 2009; Ertimur, Ferri, and Muslu, 2011).

The voting penalty is significantly more pronounced in more severe cases of BD, as proxied for by the magnitude of the restatement and presence of a “withhold” recommendation issued by RiskMetrics, an influential proxy advisor. In particular, votes withheld from directors who received a BD-related withhold recommendation are 27% (25%) higher than votes withheld from non-BD directors (BD directors for whom no BD-related withhold recommendation was issued). Although this effect is large, additional tests suggest that shareholders do not mechanically follow proxy voting recommendations. The percentage of votes withheld from directors who received a BD-related withhold recommendation because they sat on the CC during the BD period is significantly larger than for directors who received a BD-related withhold recommendation for failure to take remedial actions after the discovery of BD, suggesting that shareholders cast their votes depending on the specific reasons for, and context of, proxy advisors’ recommendations.

Our second set of analyses examines the association between the revelation of BD and subsequent director turnover at BD firms. We find that CC members at BD firms are more likely to lose their seats than AC members at BD firms or CC members at non-BD firms, suggesting again that reputation penalties accrue to the CC, and that BD is not viewed as a board-level monitoring failure. Setting all control variables at their mean, the predicted probability of turnover for CC members at BD firms is 17.3%, 1.53 times higher than for AC members at BD firms and 1.37 times higher than for CC members at non-BD firms. The turnover penalty is stronger when BD is more severe and firm performance is poor. The predicted probability of turnover for CC directors at BD firms with large restatements is 29.4%, 2.29 times higher than for their counterparts at non-BD firms (12.8%), and rises to 33.9% at BD firms with a large restatement and poor performance.

In our third set of analyses, we find no evidence that directors of BD firms incur reputation penalties at other (non-BD) firms in terms either of votes withheld when up for election or number

of other directorships held, regardless of current or past committee membership or the severity of BD. Consistent with these results, we find no instance of RiskMetrics recommending withholding votes from a director at a non-BD firm because of involvement in BD at another firm. These findings are noteworthy given prior evidence that misconduct (e.g., restatements, allegations of financial fraud) is associated with a decline in other board seats held by outside directors (Srinivasan, 2005; Fich and Shivdasani, 2007), and evidence of abnormal negative returns to firms director-interlocked with BD investigation targets (Pool, Wang, and Xie, 2009).

Overall, our findings suggest that involvement in BD results in significant penalties for CC directors at BD firms but not at other firms, raising the question of whether such penalties are likely to have any ex ante effect on directors' incentives to monitor CEO pay. In that respect, our results could provide indirect support for reforms aimed at strengthening other monitoring mechanisms (e.g., say on pay, Ferri and Maber, 2011).

Our study contributes to two strands of literature. The first is research on the director labor market as an ex post settling up mechanism. Previous studies find significant reputation penalties for directors at firms with poor performance or ex post symptoms of poor monitoring (e.g., restatements, financial fraud lawsuits). Ours is the first study to examine whether these penalties extend to poor oversight of executive pay, a key governance issue subject to intense scrutiny. Also, whereas previous studies focus only on director turnover and number of directorships held, we examine votes withheld from directors up for re-election as well. Observed turnover after negative events can be forced (penalty for poor monitoring) or voluntary (e.g., reduce workload, limit reputational/legal damage). Votes withheld do not suffer from this interpretation problem, and thus strengthen inferences from the turnover/directorships analyses. In addition, a mere focus on turnover/directorships understates the full extent of reputation consequences if shareholders

believe that in some cases a lighter penalty (withheld votes) is appropriate or lack the power to impose harsher penalties. Finally, whereas most studies look at reputation penalties for the whole board, we focus on specific committees, in particular, the CC, which has received relatively little attention (e.g., Newman and Mozes, 1999; Vafeas, 2003; Agrawal and Nasser, 2010).

The second strand of literature to which we contribute is that on shareholder voting (Gillan and Starks, 2000; Alexander, Chen, Seppi, and Spatt, 2009; Cai et al., 2009; Choi, Fisch, and Kahan, 2009; Fischer et al., 2009; Choi, Fisch, and Kahan, 2010; Ertimur, Ferri, and Stubben, 2010). The significant lag between the time the BD took place (mostly the second half of the 1990s) and the time it became public (2006-2007), and focus on a committee-level issue, provide a rare opportunity to examine the sophistication of voting shareholders, namely, the extent to which votes withheld reflect directors' responsibilities and decision rights both during the BD period and at the time the BD practice is discovered. Another unique feature of our setting is that we can exploit the variation in the reasons RiskMetrics' withholds recommendations for BD directors to examine whether shareholders blindly follow proxy advisors' recommendations or interpret them in the context of other information. Providing novel insights into these questions is of great importance inasmuch as policy reforms like proxy access and say on pay empower voting shareholders (Bebchuk, 2005; Anabtawi and Stout, 2008; Gordon, 2009).

The paper proceeds as follows. Section 2 reviews the institutional background and related literature. Section 3 describes our data and the sample selection process. Section 4 examines the effect of BD on votes withheld from directors up for election at BD firms, Section 5 the effect of BD on director turnover at BD firms. Section 6 analyzes the reputation consequences for directors of BD firms at non-BD firms. Section 7 presents a number of robustness tests. Section 8 concludes.

## **2. Option backdating: institutional background and related literature**

An academic study circulated in February 2004 (Lie, 2005) presented the first evidence of BD as a widespread practice.<sup>6</sup> By the end of 2004, the Securities and Exchange Commission (SEC) was inquiring into the suspicious timing of option grants at Nyfix and Analog Devices. But it was only after a front-page story in March 2006 (Wall Street Journal, 2006b) that the BD scandal erupted. Between 2006 and 2007, approximately 270 firms were subjects of inquiries either by their own boards, often in response to analyst reports or press stories raising questions about patterns of option grants, or by the SEC and Department of Justice (DoJ). In virtually all cases, the period subject to investigation covered a number of years prior to 2002, when a new rule mandated faster (two-day) reporting of option grants, thereby reducing the opportunity for BD (Collins, Gong, and Li, 2005; Narayanan and Seyhun, 2006; Heron and Lie, 2007; Huang and Lu, 2009). Most of the investigated firms had to restate their financial statements. The associated delays often resulted in temporary delistings that affected some firms' compliance with bond covenants. Some firms also experienced a credit rating downgrade. In many cases, firms were required to revise their tax returns and incur tax-related penalties. Most BD firms were targets of multiple shareholder lawsuits, and some executives even subject to criminal indictments. In the most egregious cases, the resolution of BD-related issues took several years and resulted in substantial

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<sup>6</sup> A number of studies had already documented a systematically favorable stock price pattern around executive option grants (Yermack, 1997; Aboody and Kasznik, 2000; Chauvin and Shenoy, 2001; Callaghan, Saly, and Subramaniam, 2004). These studies attributed this pattern to timing grants before (after) the release of positive (negative) firm-specific news to the market, or timing disclosures around the grant date. Lie (2005) suggested that retroactive timing of the grant date ("backdating") was likely to play a major role in explaining the pattern.

changes in the management team (for details, see Narayanan et al., 2007; Bickley and Shorter, 2008; Bernile and Jarrell, 2009; Efendi, Files, Ouyang, and Swanson, 2010).<sup>7</sup>

One group of studies examining the BD phenomenon is focused on the extent of the BD practice (Narayanan and Seyhun, 2008; Bizjak et al., 2009; Heron and Lie, 2009; Bebchuk et al., 2010). Collectively, these studies show that the number of firms likely to have engaged in BD or some other form of opportunistic timing of option grants at least once far exceeds the number of firms subject to BD-related investigations, and increased throughout the 1990s, with substantial gains accruing to the executives and, in some cases, outside directors.

Another group of studies analyzes the characteristics of firms with option grant patterns consistent with BD or opportunistic timing, and generally concludes that agency problems and CEO influence over the board are greater at these firms (Bizjak et al., 2009; Collins, Gong, and Li, 2009; Heron and Lie, 2009; Bebchuk et al., 2010). These studies also show that a pattern consistent with BD is more likely when there are interlocking boards among BD firms (Bizjak et al., 2009; Collins et al., 2009), when option-based pay for directors is higher (Byard and Li, 2005; Minnick and Zhao, 2009), and when directors and CEOs receive options around the same time (Bizjak et al., 2009; Collins et al., 2009; Bebchuk et al., 2010). These findings suggest that at least some directors may have deliberately permitted BD, perhaps for personal gain. This evidence provides further motivation for investigating the reputation penalties for directors at BD firms.

The final group of studies, which examines the stock price reaction to news of a firm's involvement in BD, documents statistically and economically significant negative abnormal returns (Narayanan et al., 2007; Bernile and Jarrell, 2009; Carow et al., 2009). Collectively, these

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<sup>7</sup> For detailed evidence on penalties incurred by firms and executives involved in a broad set of financial misconduct cases, see Karpoff, Lee, and Martin (2008a) and Karpoff, Lee, and Martin (2008b).

studies show that the losses in shareholder value cannot be explained by direct out-of-pocket costs alone (because the cash flow implications of the revelation of BD are relatively small for most firms), and reflect instead an increase in perceived agency costs and information risk. Particularly relevant to our study, Pool et al. (2009) show that the initial announcement of a BD investigation generates significantly negative abnormal returns at other firms with directors interlocked with the investigation target, especially when interlocking directors sit on an investigation target's compensation committee. That this result is not solely a spillover effect (i.e., expectation of an imminent BD investigation), because it holds as well for director-interlocked firms with an option grant pattern inconsistent with BD, suggests instead a reputation-based explanation, specifically, investors revising downward the monitoring value of directors involved with BD firms. Our study directly examines the reputation penalties to outside directors involved with BD firms.

### **3. Sample selection**

Our initial sample of 271 firms that announced internal reviews, SEC inquiries, or DoJ subpoenas related to BD is drawn from the Glass, Lewis & Co. Yellow Card Trend Alert Report released on June 14, 2007. This report updates a list compiled by the *WSJ* in 2006 and used in earlier studies (e.g., Bernile and Jarrell, 2009). The report identifies whether a firm (i) is subject to an internal investigation, SEC inquiry, or investigation by the DoJ, (ii) is the target of a shareholder lawsuit, (iii) has announced a restatement or charge to current earnings (and the amount of the restatement/charge, if finalized), (iv) has delayed its financial filings, and (v) has experienced any management turnover as a result of the investigation. To identify additional information that came to light after June 2007 and was thus not included in the Glass Lewis & Co Report (e.g., final restatement amounts for firms with restatements still pending as of June 2007), we reviewed for each firm the most recent 10-K filing discussing the investigation of historical

option grants. We also obtained from Glass Lewis & Co., for each firm, the date on which news of involvement in BD first appeared in the press, hereafter the BD “announcement date.” In most cases, this first date is the date on which the board announced an internal investigation. In the other cases, it is the announcement of an SEC inquiry or a press story.

We exclude 30 firms for which internal investigations concluded that no BD took place<sup>8</sup> and 25 firms for which we are unable to determine votes withheld from directors and director turnover because of mergers completed shortly after the BD announcement date. In 21 of these 25 cases, the merger agreement had been announced *before* the BD investigation was launched, suggesting that the merger was unrelated to the investigation.<sup>9</sup> To the extent that the remaining

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<sup>8</sup> In most of these cases, the boards undertook internal investigations of option granting practices as a precautionary measure to reassure shareholders that the BD scandal did not extend to their firms. In some cases, the investigation was a response to press or analyst reports of a suspicious option grant. Only five of these firms were targets of SEC inquiries, all concluded with a “no-action.” None of these firms restated their prior financial statements or took a BD-related charge to earnings. Because in all these cases the investigation clarified the lack of firm involvement in BD fairly quickly, usually ahead of the annual meeting, we do not expect any reputation penalties for the directors in terms of votes cast for their election. Indeed, in unreported tests we verify that votes withheld from directors at these firms are not different from votes withheld from directors in a control sample of firms not involved in BD.

<sup>9</sup> Anecdotal evidence suggests that in some cases the BD investigation may have affected the terms of the merger. A shareholder suit filed against its executives claimed that Engineered Support Systems (a BD firm) agreed to a lower purchase price provided that the acquiring company would assume the liabilities related to the BD problem (Riley, 2008). In a similar vein, a class action filed by two pension funds charged that Caremark (another BD firm) accepted a bid from CVS (over a higher bid from Express Scripts) in large part because language in the merger agreement gave Caremark executives and directors broad protection from any potential accusations of options backdating (Berner, 2007). Indeed, subsequent regulatory filings indicated that CVS had agreed to pay annual indemnity insurance premiums up to 450% higher than the current sum paid by Caremark to “provide officers’ and directors’ liability insurance in respect of claims arising from acts or omissions occurring prior to the completion of the merger.”

four acquisitions were orchestrated to “hide” the BD problem, the firms’ exclusion may understate the reputation penalties we document. We also exclude 30 firms (including six foreign firms) for which data for some control variables was missing (these firms do not differ from the rest of the sample in terms of magnitude of the BD-related restatement or frequency of SEC inquiries). Finally, in the votes withheld analysis, we lose eight observations for which we could not obtain votes withheld data, five of them because of a pending restatement. This exclusion may bias downward our estimate of the effect of BD on votes withheld. Two of these five firms are among the most egregious cases of backdating (Comverse Technology and Vitesse Semiconductor, which were eventually targets of a proxy fight). Our final sample for the votes withheld (director turnover) analysis includes 178 (186) BD firms. As a benchmark, Bernile and Jarrell (2009) examine a sample of 129 BD firms identified by the *WSJ* as of December 31, 2006.

#### **4. Votes withheld**

##### *4.1 Research design*

To examine the effect of BD on votes withheld from directors, we first construct a sample of outside directors that are up for election at BD firms at the first annual meeting occurring at least a week after the BD announcement date (because shareholder votes are usually cast by proxy before the meeting). For firms with staggered boards, we include directors up for election at the first or second annual meeting.<sup>10</sup> This results in a sample of 940 BD director-year observations.

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<sup>10</sup> At firms with staggered boards, typically one third of the directors are up for election in a given year. Because our director elections dataset include election results through 2008, we are unable to include directors who are not up for election until the third annual meeting following the revelation of BD. This may bias downward the effect we observe. On the other hand, the effect of BD on director elections might be reduced as the lag between revelation of the scandal and director elections increases because shareholder votes will also reflect how the directors dealt with the BD investigation as well as new information about directors’ performance on other dimensions. Indeed, in untabulated

Next, we construct a control sample of outside directors who are up for election only at non-BD firms (we exclude directors who also sit on the boards of BD firms to remove potential effects of involvement with a BD firm on director elections at non-BD firms, the subject of our tests in Section 6). Because 85% of BD announcement dates are in 2006, and the first subsequent director elections take place in 2007, we limit the control sample to directors up for election in 2007. The control sample includes 6,642 director-firm observations at 1,565 non-BD firms. For the combined sample, we estimate the following pooled director level ordinary least squares regression with heteroskedasticity-robust standard errors clustered by director and firm<sup>11</sup>:

$$Votes\ Withheld = \alpha_0 + \alpha_1 Director\ BD\ Firm + \beta\ Control\ Variables + \varepsilon \quad (1)$$

The dependent variable *Votes Withheld* is the number of votes withheld from a director scaled by the number of votes cast.<sup>12</sup> Our variable of interest is *Director BD Firm*, an indicator variable that is equal to one if the director is on the board of a BD firm at the BD announcement date;  $\alpha_1 > 0$  would be consistent with a “penalty” in terms of lower shareholder support for directors associated with BD firms.

In terms of control variables, given the previously observed effect of voting recommendations issued by proxy advisors (Bethel and Gillan, 2002; Cai et al., 2009; Choi et al.,

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analyses, when we re-run the votes withheld tests reported in Section 4.2 after excluding the second meeting data, we obtain qualitatively similar results with slightly higher statistical and economic significance. This suggests that shareholder reaction to the discovery of the BD problem is dampened over time.

<sup>11</sup> In robustness tests (not tabulated), we estimate (i) Eq. (1) with standard errors clustered by firm, and (ii) an alternative version of Eq. (1) in which the unit of analysis is the firm (i.e., the dependent variable is the average votes withheld across all directors up for election). The results are unchanged.

<sup>12</sup> Because the dependent variable is a percentage, following Bethel and Gillan (2002) we use its logit transformation [ $\text{Log} (Votes\ Withheld / (1 - Votes\ Withheld))$ ] in robustness tests and obtain similar findings.

2009; Choi et al., 2010; Ertimur et al., 2011), we include an indicator variable equal to one if RiskMetrics issued a (non-BD related) withhold recommendation (*Non-BD Related RiskMetrics Wh. Rec.*). RiskMetrics issues withhold recommendations under various circumstances—e.g. when directors fail to regularly attend board meetings or to implement shareholder proposals supported by a majority of shares outstanding, or when directors of key committees are not “independent.” Following Cai et al. (2009), we also control for director characteristics (*New Director, Female Director, Director Age > 65, Tenure, Number of Other Directorships*), the firm’s governance structure (*% of Outside Directors, Board Size, Total CEO Compensation*), firm performance (*Industry-Adjusted ROA, Abnormal Returns*), institutional ownership (*% of Institutional Holdings, Blockholder*), and firm size (*ln(Assets)*). To capture the effect other negative events on votes withheld, we control for non-BD related litigation and restatements (*Non-BD Related Litigation, Non-BD Related Restatement*). Finally, we include industry fixed effects based on two-digit SIC codes. See Tables 1 and 2 for detailed variable definitions and data sources.

## 4.2 Results

### 4.2.1 Are more votes withheld from directors at backdating firms?

Table 1 reports summary statistics. In the combined sample, the mean and median votes withheld are 5.5% and 2.4%, similar to the results in Cai et al.’s (2009) examination of a sample of 13,384 directors up for election in the 2003-2005 period. More important for our study, we find that the mean and median votes withheld from directors on BD firms’ boards are approximately double the corresponding statistics for directors on non-BD firms’ boards (9.8% vs. 4.9% and 4.9% vs. 2.2%, respectively), differences significant at the 1% level.

Directors on the boards of BD firms are more than twice as likely to be in their first year of tenure, perhaps reflecting higher director turnover after the BD announcement (a conjecture we

investigate in Section 5). Also, BD firms perform worse in terms of both *Industry Adjusted ROA* and *Abnormal Returns* (the latter likely due to the revelation of BD). The other differences in director and firm characteristics, although statistically significant, are not economically relevant.

Table 2, Panel A presents the multivariate results for Eq. (1). Model (1) shows that shareholders withhold more votes from directors at BD firms. The coefficient of *Director BD Firm* is positive and significant, and similar in magnitude to the difference in means reported in Table 1 (~5%). Thus, even after controlling for firm and director characteristics, the percentage of votes withheld is roughly twice as high for directors at BD firms as for directors at non-BD firms.

#### 4.2.2 Does voting dissent at BD firms reflect directors' responsibilities and decision rights?

A unique feature of the BD scandal is the substantial time lag between the period during which BD took place (for most sample firms, the second half of the 1990s) and when it was discovered (2006-2007). As a result, not all of the directors on the board at the time of the BD announcement sat on the board during the BD period. We use this time lag to investigate whether shareholders, when casting their votes, exhibit “memory” and an awareness of different degrees of director responsibility. In Model (2) we replace *Director BD Firm* with two indicators, *Director BD Firm – On Board During BD Period* and *Director BD Firm – Not On Board During BD Period*.<sup>13</sup> Although both coefficients are positive and significant, votes withheld from directors on the board during the BD period are 3.77% higher than for directors not on the board during the BD period (see the Wald tests), and 6.71% higher than for directors of non-BD firms, suggesting that

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<sup>13</sup> We hand collected information on board membership for each year during which a firm engaged in BD. The number of observations is lower in Model (2) than in Model (1) because we cannot obtain this information for 67 directors. We find that 66.7% of the 873 current directors with available data were on the board during the BD period.

voting shareholders do, indeed, exhibit memory and distinguish between different degrees of director responsibility.

We next investigate whether the voting penalty for BD directors depends on their current committee membership. BD can be viewed as a monitoring failure of the compensation committee (hereafter CC) because it provides executives with in-the-money rather than at-the-money options (in violation of shareholder-approved stock option plans), and/or as a failure of the audit committee (hereafter AC) because it leads to understatement of compensation expense in violation of GAAP, and often requires restatement. To shed light on this question, in Model (3) we replace *Director BD Firm* with indicator variables denoting directors' current committee membership (*CC Director BD Firm*, *AC Director BD Firm*, *Other Director BD Firm*) and introduce similar indicator variables for non-BD firms' directors (*CC Director Non-BD Firm*, *AC Director Non-BD Firm*; other directors at non-BD firms are captured in the intercept).

The results are as follow. First, we find that the higher voting dissent for directors at BD firms observed in Model (1) holds across different committees. Votes withheld are greater for CC, AC, and other directors at BD firms than for their counterparts at non-BD firms (see the Wald tests for CC and AC and main effect for other directors). Second, and more relevant to the question above, the difference is more pronounced for CC members (a 7.09% voting penalty). Along the same lines, Wald tests also show that, among BD firms, shareholders penalize CC members to a greater extent than AC members and other directors, and between these latter two the voting penalty does not differ.

Finally, in Model (4) we combine current and past committee membership by partitioning current CC members, AC members, and other directors into the following three categories based on their board and committee membership during the BD period: those who were not on the board;

those who were on the board but not on the CC; and those who were on the CC.<sup>14</sup> The results indicate that directors who sat on the CC during the BD period receive the largest penalty, 9.76%-10.32% higher votes withheld than for non-BD directors, and further reveal that this penalty does not depend on their current committee membership (see the last set of Wald tests). Notably, there seems to be a “pecking order” of penalties, the highest accruing to directors who sat on the CC during the BD period (~10%), followed by current CC members who were not on the CC during the BD period (~5-6%), and then all other BD directors (~2-3%).

Taken as a whole, these results indicate that shareholders perceive BD as a monitoring failure of the CC rather than the AC, consistent with the view that “the backdating phenomenon is not an accounting scandal . . . backdating has accounting consequences, but it is unlikely to have been accounting driven” (Walker, 2007). In addition, across all three categories of current membership there is no difference in voting penalty between directors not on the board during the BD period and those not on the CC (but on the board) during the BD period, which suggests that shareholders did not question the integrity and effectiveness of the whole board, but viewed BD as a problem confined to the CCs.

With respect to the control variables, we find that votes withheld are, on average, 18% higher when there is a non-BD related RiskMetrics withhold recommendation, an effect similar to the 21% figure reported by Cai et al. (2009) for director elections, the 14%-21% reported by Bethel and Gillan (2002) for management proposals, and the 25% reported by Ertimur et al. (2011) for compensation-related shareholder proposals. As in Cai et al. (2009), votes withheld are lower

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<sup>14</sup> Among current CC members of BD firms in our analysis, 61.8% (73.0%) sat on the CC (board) during the BD period; among current AC members, 20.2% (60.7%) sat on the CC (board) during the BD period; and among current other directors, 21.4% (61.0%) sat on the CC (board) during the BD period.

for new directors and higher following poor operating (but not stock) performance, for directors with longer tenure, for directors who sit on smaller boards, when CEO pay is higher, and in firms with greater institutional ownership, although the economic significance of these variables is generally small.

#### *4.2.3 Does voting dissent at backdating firms reflect the severity of backdating?*

BD investigations revealed that degree and type of monitoring failure differed dramatically across firms. Some firms engaged in BD over many years and made large numbers of option grants, mostly involving executives (including CEOs) and, in few cases, outside directors. For these firms, the revelation of BD often resulted in large restatements, delistings, SEC inquiries, DoJ investigations, shareholder lawsuits, and, in some cases, fines and criminal convictions. For other firms, however, BD was an isolated event or the result of unintentional administrative flaws in option granting procedures with minimal consequences.<sup>15</sup>

If shareholder votes efficiently processed available BD-related information before the annual meeting, votes withheld from directors of BD firms should be higher when BD is more “severe,” that is, when the evidence suggests a greater monitoring failure by boards. To test this conjecture, in Panel B we partition the directors of BD firms into two groups using two measures

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<sup>15</sup> A firm may “engage inadvertently in BD practices due to ministerial errors in recording stock grant approval dates. . . . One practice that may be prone to mistake involves the 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. 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” (Narayanan et al., 2007). Another example is the practice of offering the same option grant date (say, the beginning of the quarter) to all the employees hired in a given a quarter to avoid disparity in the value of the grants to employees depending on their hire date [for details, see Dash (2006)].

of severity. Our first measure is the magnitude of the required restatement. Under variable accounting, the compensation expense for in-the-money options (and thus the restatement amount) depends on the number of backdated options and spread between the stock price and exercise price on the true grant date. All else being equal, the magnitude of the restatement will be higher the larger the number of options backdated (which usually correlates with the length of the BD period) and the more in-the-money those options (potential hidden profit to executives). Consistent with restatements being a good proxy for the perceived severity of BD, Bernile and Jarrell (2009) find that firms with greater restatement amounts experience a more negative market reaction upon the revelation of BD and are more likely to be sued.

Based on the above considerations, in Model (1) we define as *Director BD Firm - High (Low) Restatement* directors of BD firms with a compensation expense restatement amount greater (lower) than 6.5% of assets (the top quartile of the restatement distribution, which ranges from 0% to 65%). The results indicate that, even in low severity situations, more votes are withheld from directors at BD firms than from directors at non-BD firms. However, the voting penalty is greatest for directors in BD firms with a large restatement (9.59% vs. 2.79%, significant at the 1% level; see the Wald test). In untabulated analyses, we find a similar effect when we use the median restatement amount as the cutoff (7.8% vs. 1.5%), whereas the effect is lower (6.1% vs. 2.3%) when we split firms based on whether a restatement occurred, which suggests that investors view the magnitude (not just the occurrence) of the restatement as a proxy for the degree of monitoring failure.<sup>16</sup>

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<sup>16</sup> As an alternative measure, we examine the role of a formal or informal SEC inquiry, which took place at 56% of the BD firms, or a DoJ investigation, which took place at 24% of the BD firms (mostly those already subjects of an SEC inquiry). On one hand, shareholders can view the involvement of the SEC/DoJ as an indication that a firm is likely to incur greater (direct and indirect) costs as a result of the BD investigations and/or that the board was not proactive

Our second measure of severity is the issuance of a BD-related RiskMetrics “withhold” recommendation ahead of the annual meeting. RiskMetrics’s stated policy on BD is to recommend that shareholders withhold votes “from the CC members who oversaw the questionable options grant practices or from current CC members who fail to respond to the issue proactively . . . on a case-by-case basis” depending on the “severity of the practices and the subsequent corrective actions taken by the company.” In particular, RiskMetrics focuses “on several factors, including, but not limited to: (i) reason and motive for the options backdating issue, such as inadvertent vs. deliberate grant date changes; (ii) length of time of options backdating; (iii) size of restatement due to options backdating; (iv) corrective actions taken by the board or compensation committee, such as canceling or repricing backdated options, or recoupment of option gains on backdated grants; and (v) adoption of a grant policy that prohibits backdating, and creation of a fixed grant schedule or window period for equity grants going forward” (RiskMetrics, 2007; see Appendix A).

Three points about RiskMetrics’ stated policy are noteworthy. First, the focus is on CC members, implying that only CC members are viewed as responsible. Second, the focus is on both past *and* current CC members, the latter being held accountable for their response to the BD

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enough in addressing the BD-related issues. On the other hand, SEC/DoJ involvement may not be an accurate measure of severity to the extent that the SEC/DoJ target firms based on other criteria (e.g., visibility of the firm). When we partition directors of BD firms into two groups based on whether the firm was targeted by an SEC inquiry or a DoJ investigation, we find that, although votes withheld are higher for directors at BD firms than for directors at non-BD firms in both groups, the voting penalty is greater for directors in BD firms subject to SEC/DoJ investigations (8.45% vs. 1.50%, significant at the 1% level). This result is not surprising given that BD firms investigated by the SEC/DoJ have larger restatements (on average, 6.8% of total assets versus 2.6% for other BD firms). As additional measure of severity, we considered an indicator variable for whether a director sits on more than one backdating firm, arguably an indication of greater responsibility. However, only a handful of the directors in our sample sat on the boards of more than one firm that publicly announced a BD investigation.

investigation. Both of these policies are consistent with our results in Table 2, Panel A, Model (4). In particular, they might explain the voting penalty for current CC members not on the board during the BD period, which could otherwise appear to be a form of inefficient “scapegoating.” Third, the severity of the BD practice was assessed based not only on the magnitude of the restatement, but also on other circumstances uncovered by the investigation (e.g., deliberate use of the practice) as well as the board’s response going forward.<sup>17</sup>

In Model (2), using hand-collected data on the rationale for RiskMetric’s withhold recommendations, we define as *Director BD Firm – BD Related RiskMetrics Wh. Rec.* (*Director BD Firm – No BD Related RiskMetrics Wh. Rec.*) those directors at BD firms who received (did not receive) a BD-related “withhold” recommendation from RiskMetrics.<sup>18</sup> The results are stark. Although votes withheld are higher than for directors at non-BD firms in both groups, the voting penalty is much larger for directors who received a BD-related withhold recommendation (27.1% vs. 2.2% votes withheld, significant at the 1% level; see the Wald test). The explanatory power of the model increases substantially with the adjusted R<sup>2</sup> going from 42.6% to 52.1%.

Finally, because our two severity measures are correlated (the restatements of firms with a BD-related withhold recommendation average 9.1% of total assets vs. 4.0% for firms without a BD-related withhold recommendation), in untabulated tests we examine their incremental effect.

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<sup>17</sup> RiskMetrics recommendations are available to shareholders ahead of the annual meeting, which is not always the case for the restatement amount. However, even when the restatement is finalized after the annual meeting, reasonable estimates can be obtained using information about option grants and exercise prices in past proxy filings. Such estimates, in fact, were often included in analysts’ reports and press articles.

<sup>18</sup> We are able to collect data on the RiskMetrics’s recommendations for 917 of the 940 directors at BD firms in our sample, 90 of whom received a BD-related withhold recommendation. Votes withheld from directors receiving (not receiving) a withhold recommendation average 31.0% (6.8%), and for one tenth of them are higher than 50%.

We classify the directors of BD firms into four groups reflecting the combinations of high/low restatement and withhold recommendation (yes/no). Conditional on a high (low) restatement, the presence of a withhold recommendation results in 22% (21%) more votes withheld. In the presence (absence) of a withhold recommendation, a high restatement results in 3% (3%) higher votes withheld, but this effect is not statistically significant. These tests are consistent with voting shareholders viewing RiskMetrics' recommendations as a richer measure of the severity of BD.

#### *4.2.4 Does voting dissent merely reflect RiskMetrics recommendations?*

The large average effect of the RiskMetrics' recommendations observed in Model (2) is consistent with earlier studies of shareholder votes (Bethel and Gillan, 2002; Cai et al., 2009; Choi et al., 2009; Ertimur et al., 2011), raising the question of whether shareholders mechanically follow proxy advisors' recommendations. This concern has led numerous observers to cast doubt on recent reforms that empower shareholder votes, such as say on pay and proxy access [for a comprehensive discussion, see Choi et al. (2009), Gordon (2009), and Choi et al. (2010)].

To examine this question, we perform two tests. First, in Panel B, Model (2) we compare the effect of BD-related and non-BD-related withhold recommendations on votes withheld and find the former to be larger (27.1% vs. 18.2%, significant at the 1% level; see the Wald test). In addition to revealing that, on average, shareholders view BD more negatively than other factors that prompt withhold recommendations, this result indicates that, inconsistent with the claim that they simply outsource voting decisions to RiskMetrics, shareholders do not view all reasons for a withhold recommendation as being equal when casting their votes. Alternatively, it is possible that for BD a larger fraction of shareholders rely on RiskMetrics' recommendations because, being a one-time event, BD is more costly and difficult to analyze than more "routine" issues.

Our second test avoids this alternative explanation by examining whether, *within* a given class of withhold recommendations (BD-related recommendations), the response in terms of shareholder votes varies depending upon context-specific factors. For this purpose, we exploit the fact that RiskMetrics' withhold recommendations target both directors on the CC during the BD period and current CC directors not on the board during the BD period. In Model (3), we classify BD directors into four groups based on whether the director received a RiskMetrics withhold recommendation and sat on the CC during the BD period. We find that the percentage of votes withheld is significantly larger for BD directors who sat on the CC during the BD period and received a BD-related withhold recommendation than for BD directors who received a BD-related withhold recommendation but did not sit on the CC during the BD period (30.7% versus 15.4%, which is significant at the 1% level). In other words, a substantial number of shareholders who followed a BD-related recommendation to withhold votes from directors who sat on the CC during the BD period ("blamed" by RiskMetrics for their failure to prevent or detect backdating) did not follow an identical BD-related recommendation issued against CC directors not on the board during the BD period (typically current CC members "blamed" by RiskMetrics for not responding properly to revelations of backdating).<sup>19</sup> In addition to confirming that shareholders viewed directors who sat on the CC during the BD period as most responsible for the BD scandal, this

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<sup>19</sup> To ensure that this result is not driven by cross-sectional differences in shareholder composition across firms, we analyze a subset of firms for which RiskMetrics issued a withhold recommendation against at least one director for being on the CC during the BD period and against at least one director for failing to properly respond to revelations of backdating. The difference in votes withheld between these two types of directors is similar to the difference in the multivariate analysis. We perform the same exercise with respect to the previous test (comparing BD-related and non-BD-related withhold recommendations) and arrive at the same conclusion. Hence, we can conclude that the *same* shareholders responded differently depending on the reasons for RiskMetrics' recommendations.

finding provides evidence of sophistication among voting shareholders in interpreting and using information other than simply the withhold/for recommendations issued by proxy advisors.

Anecdotal evidence that some BD directors experienced high votes withheld despite a “for” recommendation complements the above analyses. For example, at THQ and Sepracor, RiskMetrics recommended a “for” vote for all directors despite the BD investigation (see Appendix B), yet votes withheld ranged between 20% and 30%. At Active Power, the RiskMetrics report did not even mention the BD issue, yet ~ 30% of votes were withheld from the directors.

To summarize, on average, relative to their counterparts at non-BD firms, directors of BD firms incur a penalty in terms of votes withheld regardless of their current and past committee membership. The penalty is highest for directors who sat on the CC during the BD period, followed by current CC members who were not on the board during the BD period, suggesting that shareholders view BD primarily as a monitoring failure by past CC members, but hold current CC members accountable for their actions in addressing the BD problem. The voting penalty is significantly more pronounced in the most severe cases of BD, the strongest effect being for directors who receive a BD-related withhold recommendation from RiskMetrics. Although substantial, these voting penalties could be understated if directors involved in the most egregious cases (and thus likely to face high voting dissent) lose their seats before going up for re-election. In the next section, we analyze director turnover at BD firms.

## **5. Director turnover**

Anecdotal evidence suggests that some outside directors of BD firms resigned in connection with the BD investigation (Glass, Lewis & Co., 2007) and some BD firms experienced a substantial board shakeup consequent to a proxy contest precipitated by the BD problems (e.g.,

Cyberonics, Take-Two Interactive Software). In this section, we examine to what extent involvement in the BD scandal had a systematic impact on director turnover.

### 5.1 Research design

To examine the effect of BD on director turnover, we identify the outside directors at BD firms as of the most recent annual meeting prior to the revelation of BD (typically 2006). This results in a sample of 1,178 directors at 186 firms. We construct a control sample of outside directors who served only on non-BD firms' boards at their 2006 annual meetings (directors who sat on the boards of both BD and non-BD firms were excluded from the control sample). The control sample includes 15,368 directors at 2,231 non-BD firms. We estimate the following pooled director level logistic regression for the combined sample with heteroskedasticity-robust standard errors clustered by director and firm<sup>20</sup>:

$$Pr(\text{Director Turnover}) = \alpha_0 + \alpha_1 \text{Director BD Firm} + \beta \text{Control Variables} + \varepsilon \quad (2)$$

The dependent variable *Director Turnover* is an indicator variable that is equal to one if the director is no longer a board member at the time of the second annual meeting following the revelation of BD.<sup>21</sup> We focus on the second annual meeting to allow for turnover in cases in which the first annual meeting is relatively close to the BD announcement, and the nature of the problem might thus not yet be fully understood. Our initial variable of interest, *Director BD Firm* (an indicator variable equal to one if the director is on the board of a BD firm), is replaced in subsequent tests by indicator variables that denote current and BD period committee membership.

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<sup>20</sup> Clustering by firm only yields similar results.

<sup>21</sup> In some cases, the meeting did not take place because the firm was still in the process of restating its financials or for other reasons. In such cases, we determined the occurrence or lack of director turnover by reading 8-Ks and other company filings around the time the annual meeting would have been held.

We control for a number of director and firm characteristics found in previous studies to affect director turnover (Denis and Sarin, 1999; Farrell and Whidbee, 2000; Coles and Hoi, 2003; Ferris et al., 2003; Yermack, 2004; Farrell and Hersch, 2005; Fich and Shivdasani, 2006; Del Guercio et al., 2008; Ertimur et al., 2010). In particular, we control for director gender (*Female*), age (*Director Age > 65*), tenure with the firm (*Tenure*), *Number of Other Directorships*, *% of Outside Directors*, *Board Size*, firm performance (*Industry Adjusted ROA* and *Abnormal Returns*), firm size (*ln(Assets)*), institutional ownership (*% of Institutional Holdings*, *Blockholder*), and events that could lead to or be correlated with board shakeups (*CEO Turnover*, *Non-BD Related Litigation*, *Non-BD Related Restatement*). Finally, we include industry fixed effects based on two-digit SIC codes. See Tables 3 and 4 for detailed variable definitions and data sources.

## 5.2 Results

### 5.2.1 Do directors of backdating firms experience higher turnover?

Table 3 reports the summary statistics.<sup>22</sup> In the combined sample, mean director turnover over the two-year measurement period is 15.5%, which is broadly consistent with prior research (e.g., Coles and Hoi, 2003; Ertimur et al., 2010). More important for our study, mean director turnover is 3.5% higher for directors at BD firms than for directors at non-BD firms (18.8% vs. 15.3%, significant at the 1% level). This result seems to be entirely driven by CC directors, with a 6% difference between BD and non-BD firms (19.7% vs. 13.7%, significant at the 1% level). The other director and firm characteristics are broadly similar to those reported in Table 1. Notably,

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<sup>22</sup> Although the sample of BD firms in the votes withheld and director turnover analyses is virtually the same, the number of director-level observations is greater in the director turnover analysis than in the votes withheld analysis (16,546 vs. 7,582). This is because Voting Analytics collects director election results for (approximately) the firms in Russell 2000, whereas Boardex covers a broader set of firms (about 5,000). When we limit the director turnover analyses to the set of control firms included in the votes withheld analyses, our results are qualitatively similar.

BD firms exhibit higher CEO turnover (19.4% vs. 9.5%), likely a consequence of the BD investigation, and consistent with Efendi et al. (2010), who find that top management turnover is twice as high in BD than in non-BD firms.

Table 4, Panel A reports the results for Eq. (2). Model (1) shows a significant positive association between the probability of director turnover and involvement in BD. The coefficient of *Director BD Firm* is 0.1893, significant at the 10% level. In terms of economic significance, when we set all control variables at their mean, the predicted probability of turnover for directors at BD firms is 17.5%, versus 14.4% for directors at non-BD firms, confirming in a multivariate setting the ~3% difference documented in Table 3.<sup>23</sup>

### 5.2.2 Does turnover at BD firms reflect directors' responsibilities and decision rights?

As in the votes withheld analysis, to examine whether the abnormal turnover in Model (1) is driven by directors who were on the board during the BD period, in Model (2) we replace *Director BD Firm* with two indicators: *Director BD Firm – On Board During BD Period* and *Director BD Firm – Not On Board During BD Period*.<sup>24</sup> Although only the former is (positive and) significant, there is virtually no difference between the two coefficients (see the Wald test).

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<sup>23</sup> As for control variables, consistent with previous studies, directors older than 65 years (often the threshold for mandatory retirement) and with longer tenure are more likely to lose their seats; directors holding a greater number of seats are less likely to turn over, lending support to the idea that the number of seats held proxies for director expertise; director turnover is higher at poorly performing firms and when the CEO changes.

<sup>24</sup> Of the 1,178 directors in the turnover sample, BD period board membership data is available for only 1,073 directors because 15 firms did not provide details about the exact period during which they engaged in BD. Because those 15 firms conclude that the effect of BD was immaterial and largely due to unintentional mistakes, this should not introduce a bias, and explains the limited amount of information they provided. Among the 1,073 directors for whom BD period information was available, 83.2% were on the board during the BD period, which perhaps limits the power of this test.

In Model (3) we explore whether turnover at BD firms differs across committees by replacing *Director BD Firm* with indicator variables denoting current committee membership. We introduce similar indicator variables for directors of non-BD firms to account for the varying propensity to turnover across different committees documented in previous studies. Similar to Yermack (2004), we find that CC and AC members experience lower turnover than other directors at both BD and non-BD firms, consistent with the notion that CC and AC members are generally more valuable to the firm (and/or closer to management). Of greater relevance to our study, Wald tests show that CC members at BD firms are more likely to lose their seats than CC members at non-BD firms (difference of 0.3673,  $\chi^2=8.23$ , significant at the 1% level). In contrast, there is no difference in probability of turnover between AC members of BD and non-BD firms, or between other directors of BD and non-BD firms. Wald tests also show that at BD firms CC members are more likely than AC members to lose their seats (difference of 0.4956,  $\chi^2=5.02$ , significant at the 5% level), but there is no difference in likelihood of turnover between CC and AC members of non-BD firms. In terms of economic significance, when we set all control variables at their mean, the predicted probability of turnover for CC members at BD firms is 17.3%, 1.37 times higher than for CC members at non-BD firms (12.7%) and 1.53 times higher than for AC directors at BD firms (11.3%). These results suggest that only CC members of BD firms are held accountable for the BD scandal, which is somewhat inconsistent with Srinivasan (2005), who reports abnormal turnover for *all* outside directors (although more pronounced for AC members) after large restatements.

Finally, in Model (4) we combine current and past committee membership by partitioning current CC members, AC members, and other directors into three categories based on their board and committee membership during the BD period: those not on the board; those on the board but not on the CC; and those on the CC. We find that turnover for AC members does not depend on

whether they sat on the CC during the BD period (the first set of Wald tests). In fact, there is no difference in turnover between AC directors at BD and non-BD firms (confirming the result in Model 3) independent of the AC directors' board and committee membership during the BD period (the second set of Wald tests). Results are similar for other directors (the first set of Wald tests and coefficients in the main regression). The findings for CC members are less clear. On the one hand, turnover for CC members does not depend on whether they sat on the CC during the BD period (the first set of Wald tests). On the other hand, when we split CC directors based on their BD period membership and compare their turnover probability with that of CC directors at non-BD firms (the third set of Wald tests), we observe that the abnormal turnover observed in Model (3) for CC directors at BD firms holds only for CC directors who were board members during the BD period, independent of whether they sat on the CC. This inconsistency could be due to the limited power of the tests. Of the 522 current CC directors of BD firms, 410 (78.5%) sat on the CC during the BD period, 77 (14.7%) were not on the board, and only 35 (6.7%) were on the board but not on the CC, making it more difficult to detect a differential turnover effect.<sup>25</sup>

Overall, when combined with the insights from the votes withheld analysis, Panel A suggests that turnover effects reflect only partially shareholder preferences as expressed through their votes. Although voting shareholders clearly penalized all directors who sat on the CC during the BD period, no matter their current committee membership (Table 2, Panel A), boards focused their replacement decisions on current CC members, perhaps because they perceived a shake-up of the compensation committee as the best way to placate shareholders and regulators, or perhaps because they thought past CC members no longer on the CC were now serving a valuable role on other committees and wanted to preserve the integrity of these committees in a time of crisis.

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<sup>25</sup> As for the other categories, 26.0% (23.9%) of the AC directors (other directors) sat on the CC during the BD period.

### 5.2.3 Does director turnover at backdating firms reflect the severity of backdating?

In Table 4, Panel B, we examine the effect of the severity of BD on director turnover. Given that we find abnormal turnover in BD firms only for CC members (Panel A), we focus our analyses on CC directors (in both the treatment and control samples). Model (1) shows the coefficient of *CC Director BD Firm* to be positive and significant at the 1% level, implying a predicted probability of turnover of 17.9% for CC directors at BD firms versus 12.8% for CC directors at non-BD firms, and confirming the Wald test result in Model (3) of Panel A and univariate test in Table 3.

We examine the effect of the severity of BD in Model (2). Using the magnitude of the restatement as a proxy for severity, we find a positive and significant coefficient (at the 1% level) only for *CC Director BD Firm – High Restatement* (the difference between *High Restatement* and *Low Restatement* is significant at the 10% level).<sup>26</sup> In other words, the abnormal turnover of CC members of BD firms in Model (1) is driven by the most severe cases of BD. In terms of economic significance, the predicted probability of turnover for CC directors in a high restatement BD firm is 29.4% compared to 12.8% for CC directors at non-BD firms (that is, 2.29 times higher) and 15.4% for CC directors at low restatement BD firms.

### 5.2.4 Does director turnover at backdating firms reflect firm performance?

Previous studies show firm performance to be a key determinant of director turnover (e.g., Yermack, 2004), leading us to examine whether BD directors lose their seats only when the revelation of BD is accompanied by poor performance. In Model (3), we find this indeed to be the

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<sup>26</sup> We cannot examine the effect of a withhold recommendation on the probability of director turnover because we are measuring recommendation and turnover at the *same* time. By definition, a director who receives a withhold recommendation at the annual meeting is still on the board. For an analysis of the effect of withhold recommendations on *subsequent* director turnover, see Cai et al. (2009) and Fischer et al. (2009).

case. The predicted probability of turnover for CC directors at BD firms with “low” performance is 28.1% compared to 12.8% for CC directors at non-BD firms (that is, 2.20 times higher) and 14.5% for CC directors at BD firms with “high” performance (performance is measured in terms of industry-adjusted ROA; similar results are obtained using abnormal returns).<sup>27</sup> In Model (4), we classify directors of BD firms into four groups reflecting the four combinations of high/low performance and high/low restatement and find the strongest effect to be for the combination low performance and high restatement, the 1.0945 coefficient (significant at the 1% level) translating into a predicted probability of 33.9%, which compares to 12.8% for CC directors at non-BD firms (that is, 2.65 times higher).<sup>28</sup>

#### *5.2.5 Market reaction around director departures from BD firms*

To gauge investors’ perceptions of director departures at BD firms, we conduct an event study (untabulated). We find statistically insignificant mean cumulative abnormal returns (CAR) of 0.21% (p-value = 0.60) in a (-1,+1) window around the announcement of the departures. In most cases, this news is accompanied by other announcements or reported in documents containing other information (e.g., proxies). When we limit the sample to 48 observations with no confounding news at the time of the announcement, we find a *positive* and statistically significant mean CAR of 0.94% (p-value = 0.03), with 58% (42%) of the observations reporting positive (negative) returns. Splitting the observations into two sub-samples based on whether the underlying BD case was classified as “high severity” (using the criteria adopted for our severity

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<sup>27</sup> In a similar vein, Ertimur et al. (2010) find a higher likelihood of turnover for directors who fail to implement shareholder proposals supported by a majority of the votes cast, but only in poorly performing firms.

<sup>28</sup> The Wald tests in Panel B also indicate that a high restatement is associated with higher turnover, but only conditional on low performance, whereas low performance is not associated with higher turnover regardless of the magnitude of the restatement, suggesting that the magnitude of the restatement plays a stronger role.

tests), we find the mean CAR for the 19 director departures from BD firms classified as high severity cases to be 2.40% (p-value < 0.01) versus 0.001% (statistically insignificant) for the low severity cases, a difference statistically significant at the 1% level. The positive returns and their prevalence in the most severe BD cases are consistent with the notion that the turnover of BD directors was at least in part disciplinary in nature and, thus, positively received by investors. However, caution is advised in interpreting these tests due to the small sample size.

Overall, combining these findings with those in Section 4, it appears that whereas the voting penalty was applied to all BD directors, albeit in varying degrees depending on their likely responsibility and the severity of the BD, the turnover penalty was applied only to CC members, and only in the most severe cases of BD and when firm performance was poor, which is consistent with disciplinary turnover, a steeper penalty, being used more selectively.

## **6. Reputation consequences for BD directors at other firms**

In this section, we investigate whether involvement in BD affects directors' reputation at other firms. In particular, we examine whether BD directors experience (i) higher votes withheld when up for election at non-BD firms, and (ii) a (net) decrease in the number of other seats held.

### *6.1 Votes withheld from backdating directors at non-BD firms*

To examine the effect of BD on votes withheld from directors at non-BD firms, we identify the directors who sat on the boards of BD firms either at the time of the most recent annual meeting preceding the revelation of BD or during the BD period. For each director in this sample we obtain information about the first election faced at a non-BD firm subsequent to the initial revelation of the director's involvement in BD.<sup>29</sup> This results in a sample of 346 director

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<sup>29</sup> Directors who did not have other directorships or were not up for election before the end of 2008 (the end of the period for which we have director elections data) are excluded from this analysis.

observations (with non-missing data for the tests). We combine this sample with the comparison sample of non-BD directors (as described in Section 4.1) and re-estimate Eq. (1).

Univariate tests (untabulated) show that mean and median votes withheld from BD directors at non-BD firms (5.8% and 2.6%, respectively) are statistically higher than votes withheld from directors at non-BD firms (4.9% and 2.2%, respectively). However, the differences are economically small and disappear in multivariate tests (see Table 5, Model (1)). Models (2) and (3) confirm that directors at BD firms, when up for election at non-BD firms, do not incur a voting penalty regardless of their BD period board or current committee membership (in Model 3, the coefficient of *AC Director BD Firm* is marginally significant, but not from an economic standpoint). Untabulated tests confirm the lack of association between a director's involvement in BD and votes withheld from that director at non-BD firms even in the most severe cases of BD.

To gain further insight into this question, we read RiskMetrics reports for all BD directors' elections at non-BD firms. We did not find any instance in which RiskMetrics recommended withholding votes from a director at a non-BD firm because of the director's association with a BD firm. This is consistent with Choi et al. (2009), who find that proxy advisors do not take into account the conduct that led to a withhold recommendation for a director at firm A in issuing a recommendation for the same director at firm B.<sup>30</sup> We conclude that neither voting shareholders nor proxy advisors penalize directors involved in BD who are up for election at non-BD firms.

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<sup>30</sup> Our conversations with RiskMetrics officials indicate that their policy does not call for automatic carryover of negative recommendations to a director's other boards on the grounds that, except in the most egregious cases, it is not reasonable to penalize a director for unacceptable actions at another company. This policy has been generally supported by RiskMetrics' clients. In recent years, as requested by some clients, any issue relevant to a director's qualifications is mentioned in the research reports. However, in our sample we could not find examples of reports mentioning a director's involvement in backdating at another firm.

## 6.2 Change in other directorships

We study the effect of involvement in BD on the number of other directorships held using the sub-sample of directors used in the director turnover analysis with non-missing data on other directorships held, and estimate the following ordinary least squares regression model with heteroskedasticity-robust standard errors clustered at director and firm level:

$$\text{Change in Other Seats} = \alpha_0 + \alpha_1 \text{Director BD Firm} + \beta \text{Control Variables} + \varepsilon \quad (3a)$$

The dependent variable in Eq. (3a), *Change in Other Seats*, is the change in the number of other directorships held from the annual meeting before the BD announcement to the second annual meeting after the BD announcement (the same window used in our director turnover analysis; see Section 5.1). The control variables are the same ones used in the director turnover tests except that (i) we include an indicator variable, *Lose Seat at Own Firm*, that is equal to one for directors who lose a seat at a given firm (i.e., when *Director Turnover* is equal to one), as in Yermack (2004), and (ii) we exclude variables unlikely to have an effect on the likelihood of losing or gaining seats at other firms (*% of Outside Directors*, *Board Size* and *CEO Turnover*).

Univariate tests (untabulated) suggest that directors at BD and non-BD firms do not differ in terms of the net change in other seats held. Multivariate analysis in Table 6, Model (1) confirms this result. Furthermore, there is no difference in the change in other seats held for directors at BD firms who sat on the board during the BD period, directors at BD firms who did not sit on the board during the BD period, and directors at non-BD firms (Model (2)). Finally, Model (3) shows that current committee membership does not seem to matter either: CC members, AC members, and other directors of BD firms do not differ from their counterparts at non-BD firms in terms of net change in other seats held (see the Wald tests).

Following other studies (e.g., Coles and Hoi, 2003), to shed further light on the change in other directorships we also estimate two logistic regressions:

$$Pr(\text{Gain Other Seats}) = \alpha_0 + \alpha_1 \text{Director BD Firm} + \beta \text{Control Variables} + \varepsilon \quad (3b)$$

$$Pr(\text{Lose Other Seats}) = \alpha_0 + \alpha_1 \text{Director BD Firm} + \beta \text{Control Variables} + \varepsilon \quad (3c)$$

The dependent variable in Eq. (3b) and Eq. (3c), *Gain Other Seats* (*Lose Other Seats*), is an indicator variable that is equal to one if there is a net increase (decrease) in other directorships, and zero otherwise.<sup>31</sup> Similar to Table 6, these analyses (untabulated) confirm that involvement in BD (regardless of current committee memberships and presence on the board during the BD period) does not seem to affect the likelihood of gaining or losing other seats.

Overall, our tests do not support the notion that directors associated with BD firms were subject to significant reputation penalties at other firms. This finding contrasts with Srinivasan (2005) and Fich and Shivdasani (2007), who find that outside directors of firms involved, respectively, in large accounting restatements and financial fraud lawsuits experience a loss in other directorships, particularly in the most severe cases and when they bear greater responsibility (e.g., AC members in the case of restatements). Thus, our result casts doubt on whether reputation penalties for poor monitoring of CEO pay, because they do not extend to other firms, are large enough to have an ex ante effect on directors' incentives.

## **7. Alternative explanations: additional analyses**

### *7.1. Do documented penalties reflect personal benefits to BD directors?*

Prior research suggests that some outside directors received BD options, or at least options opportunistically timed ahead of stock price increases (e.g., Bebchuk et al., 2010). Therefore, it is

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<sup>31</sup> We estimate Eq. (3c) only for the subset of directors who hold at least one other directorship and thus can experience a decrease in other directorships.

important to understand whether the penalties imposed on outside directors at BD firms reflect poor monitoring of CEO pay or the personal benefits derived from the BD practice. Based on our reading of the BD investigations, outside directors rarely received BD options and, when they did, it is unclear which directors received the options. Hence, we follow prior literature and examine a broader director-level measure of suspected personal benefits from BD. Our measure, constructed and kindly provided to us by Bizjak et al. (2009), captures whether a director received a grant with a suspiciously favorable timing (i.e., a *likely* backdated grant).<sup>32</sup>

Using these data, we conduct two tests. First, we exclude the directors of BD firms who received likely BD options from the analyses reported in Tables 2 and 4. Our results (untabulated) are unchanged. Second, we examine the penalties that accrue to directors at BD firms who received likely BD options. The results (also untabulated) indicate that these penalties are not different from those experienced by directors at BD firms who did not receive likely BD options. Taken together, both analyses indicate that the penalties documented in Tables 2 and 4 do not reflect penalties for ill-gotten gains from BD.

## *7.2. Do poor quality directors leave BD boards prior to the revelation of BD?*

Given the time lag between the period of BD and its revelation, it is possible that lower quality directors leave the boards of BD firms prior to the period during which we conduct our tests. Our results may therefore understate the penalties to directors associated with BD. To gain insight into the quality of BD directors who depart before the revelation of BD, we collect

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<sup>32</sup> To identify likely backdated option grants, Bizjak et al. (2009) follow a statistical approach. For each unscheduled option grant between January 1996 and August 2002 they compute the difference in the post-grant and pre-grant twenty-day cumulative stock returns around the actual reported grant date and compare this value with the cutoff level corresponding to the desired confidence level based on randomly assigned grant dates. If the magnitude of the return difference around the actual grant date exceeds the cutoff level, the grant is classified as likely backdated.

information on the reasons for their departures. We find an explicit indication of a “negative” event (e.g., a restatement, an investigation, or concerns about director independence) for only 5% of the 626 departures. In the vast majority of cases, a generic explanation or no explanation is given<sup>33</sup> (the remaining cases reflect departures due to health problems, mandatory retirement, and so forth).

Because generic explanations could hide concerns about director quality and behavior, we perform an event study around departure announcement dates. To minimize the effect of information leakage and increase the power of our tests, we confine our analysis to the 309 announcements that occur no later than one week after the effective date of departure. The market reaction to the departure of poor quality directors should be positive. Instead, we find a statistically insignificant mean three-day (-1,1) size-adjusted CAR of 0.11% (p-value=0.81). Because departure announcements made prior to August 23, 2004 were typically bundled with other disclosures,<sup>34</sup> we use Lexis-Nexis, Factiva, and EDGAR to identify 26 announcements, filed on Form 8-K, or released via newswire, that were made on days without confounding information. Confining our analysis to this (admittedly small) subsample, we find a statistically significant mean three-day size-adjusted CAR of -1.38% (p-value=0.07).

Given the challenges associated with interpreting event studies around director departures, we examine two additional measures of director quality: votes withheld and number of other seats

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<sup>33</sup> Approximately 67% of departures (415 observations) involved generic disclosures unconnected to corporate irregularities (e.g., “leaving to pursue other opportunities”); 8% of departures (52 observations) were not explicitly disclosed and were inferred by comparing successive proxy statements.

<sup>34</sup> On August 23, 2004 the SEC modified its rules for Form 8-K filings, increasing the number of reportable events and shortening the time to disclose to no more than four days after the occurrence of the event. Before the new rules, departures were typically first announced in proxies or concurrent with earnings announcements.

held. Across both sets of analyses, results (untabulated) indicate no difference between directors who departed prior to the revelation of BD and directors who remained on the board.<sup>35</sup>

Overall, we find no evidence that directors who departed before the revelation of BD were of systematically lower quality, alleviating concerns that the documented penalties are understated.

### *7.3. Do BD-related penalties incurred by directors reflect firm characteristics?*

Throughout our main analyses we use a broad cross-section of firms in our control sample. It is therefore possible that observed differences between directors at BD firms and directors in the control sample are due to differences in firm characteristics that are correlated with the probability of BD. To mitigate this concern, we repeat our analyses using an industry-, size-, and performance-matched control sample. Our results (untabulated) are unchanged.

Second, we identify and separately control for directors who served on the boards of firms that likely engaged in backdating (based on the pattern of option grants), but were not subject to an internal or external BD investigation (and are thus included not in our BD sample but in our control sample).<sup>36</sup> On one hand, including these firms in our control sample could bias downward the observed effects if the penalties also accrue to directors of likely BD firms. On the other hand, this can be viewed as the ideal control sample in that it includes firms likely to have engaged in BD (and, thus, with a “propensity” to backdate options), but not subject to a publicly announced investigation. These tests (unreported) yield three insights. First, the effects we observe are

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<sup>35</sup> In particular, we compare votes withheld for directors who served during the BD period and left prior to the revelation of BD and those who remained on the board between the end of the BD period and the revelation of BD, and measure the number of other seats held as of the last year of the BD period. We do not find any differences.

<sup>36</sup> We rely on three alternative lists kindly provided to us by the authors of three studies that focus on likely BD firms: Bizjak et al. (2009), Collins et al. (2009), and Bebchuk et al. (2010).

unchanged when we use likely BD firms as control firms. Second, including likely BD firms in our original control sample does not introduce a downward bias in our findings. Third, there is no voting/turnover penalty for directors of likely BD firms who were not investigated for BD. To the extent that likely BD firms are firms engaging in opportunistic timing of options rather than backdating or only occasionally engaging in BD, the lack of penalties for their directors could be viewed as an optimal response. On the other hand, if likely BD firms represent firms that engaged in systematic BD and were able to cover it up and avoid an investigation, then the lack of penalties can be viewed as evidence of inefficiencies in shareholder voting and in the director labor market.

#### *7.4. Do BD-related penalties incurred by directors reflect director characteristics?*

Finally, we explore the potential impact of (unobservable) director characteristics, that is, the possibility that the directors of BD firms are “controversial” directors for whom votes withheld are always high. Using a panel dataset that incorporates votes withheld from 2003 onward, we repeat the analysis in Table 2 after including director fixed effects. The results (unreported) are unchanged. Hence, the high votes withheld associated with the most severe BD cases do not reflect a director-specific propensity to high votes withheld.

## **8. Conclusion**

We examine whether outside directors are held accountable for poor monitoring of executive compensation by studying the reputation penalties to directors of firms involved in the option backdating (BD) scandal. BD provides a powerful setting in which to examine this question because it is difficult to justify on economic grounds, appears to be a blatant example of “camouflage” used to award additional pay, and was the subject of intense press coverage.

We examine votes withheld from directors up for re-election and director turnover at BD firms as proxies for reputation penalties. We find that the percentage of votes withheld is twice as

high for directors at BD firms as for their counterparts at non-BD firms. The penalties accrue to all directors, but are highest for directors who sat on the compensation committee (CC) when the firm was engaging in BD and in more severe cases of BD, suggesting that voting shareholders view BD primarily as a monitoring failure of the CC (rather than the audit committee), and that they are able to distinguish degrees of responsibility for past compensation decisions and gauge the severity of the BD practice.

We also find that CC members at BD firms are more likely than CC members at non-BD firms to lose their seats. The turnover penalty is highest when BD is more severe and firm performance is poor. In particular, the predicted probability of turnover for CC directors in BD firms with large restatements is 29.4%, 2.29 times higher than for their counterparts at non-BD firms, and rises to 33.9% in BD firms with a large restatement and poor performance.

Finally, we find no evidence that directors of BD firms incur reputation penalties at other (non-BD) firms in terms either of votes withheld when up for election or number of other directorships held, regardless of current or past committee membership or severity of the BD. This raises the question of whether the reputation penalties for poor monitoring of executive pay are large enough to affect the ex ante incentives of directors.

Our findings contribute to the director labor market and shareholder voting literatures and inform the policy debate on reforming executive pay and empowering shareholders.

## **Appendix A: Excerpt from ISS/RiskMetrics Group report on Activision, Inc. (Sept 14, 2007)<sup>37</sup>**

### **Options backdating allegation: US standard policy**

In cases where a company has practiced options backdating or is facing backdating allegations, ISS may recommend shareholders withhold votes from the Compensation Committee members who oversaw the questionable options grant practices or from current compensation committee members who fail to respond to the issue proactively.

In determining our vote recommendation, ISS will analyze, on a case-by-case basis, the severity of the practices and the subsequent corrective actions taken by the company. Our analysis will be based on several factors, including, but not limited to:

- (i) Reason and motive for the options backdating issue, such as inadvertent vs. deliberate grant date changes;
- (ii) Length of time of options backdating;
- (iii) Size of restatement due to options backdating;
- (iv) Corrective actions taken by the board or compensation committee, such as canceling or repricing backdated options, or recoupment of option gains on backdated grants; and
- (v) Adoption of a grant policy that prohibits backdating, and creation of a fixed grant schedule or window period for equity grants going forward.

### **Options backdating allegation: Analysis of Activision, Inc.**

In this case, [Activision, Inc.'s] Special Subcommittee reported that the company failed to establish and maintain adequate procedures and controls, failed on multiple occasions to appreciate the implications of available information, and relied on insufficient documentation. As a result, the exercise prices for certain options were chosen with the benefit of hindsight, which is highly problematic. Additionally, there was confusion regarding the application of certain accounting rules.

Significantly, the Special Subcommittee found that approximately 63 percent of the total options granted during the period, required measurement date corrections. A majority of the grants requiring measurement date corrections occurred on 16 dates over the 15-year period. The timeframe from 1996 to 2005 has been identified as particularly problematic. The \$ 66.7 million adjustment for the thirteen year period from April 1, 1993 to March 31, 2006 represents a significant 4.4 percent of the company's stated revenues of \$1.51 billion for fiscal year end March 31, 2007.

Of note, the Special Subcommittee found that four individuals, former heads of human resources, finance and legal, and a senior partner of the former outside corporate law firm who sat on and acted as secretary to the board, bore significant responsibility, in varying degrees, for measurement date inaccuracies by virtue of their positions and/or involvement in the option granting process at varying times. The Special Subcommittee asserts that they did not engage in intentional wrongdoing. The timing and reason for these individuals leaving the company is unknown. It was also determined that Robert A. Kotick, chairman of the board and chief executive officer, Brian G. Kelly, co-chairman of the board, Ronald Doornink director and senior advisor, and George Rose, senior vice president, general counsel and secretary, did not engage in intentional wrongdoing with respect to stock option granting practices. The sub-committee stops short of explaining their level of involvement and/or understanding of the situation, just stating that they had "significant responsibility", but that there was no intentional wrongdoing. ISS finds the lack of disclosure

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<sup>37</sup> Source: RiskMetrics

and candor here problematic and additional details should be provided. Additionally, the members of the Special Sub-Committee conducting the investigation should be disclosed.

With regard to remediation, corporate officers Robert A. Kotick, Brian G. Kelly, Ronald Doormink and George Rose and directors Robert J. Morgado and Barbara S. Isgur and four other individuals found by the Special Subcommittee to have significant responsibility for the option misdating have relinquished the economic benefits resulting from measurement date inaccuracies. In the case of options that have already been exercised, all six current officers and directors have agreed to pay the additional exercise price to the company or agreed to the cancellation of vested but unexercised options with a value equivalent to the additional exercise price, subject to final documentation. For options that have not yet been exercised, these six current officers and directors have also agreed that the exercise price will be increased so as to be equal to the fair market value of the company's stock on the re-determined measurement date. Two of the other four individuals have agreed to make similar repayments and/or exercise price increases or option cancellations, subject to final documentation. The company is discussing similar agreements with the remaining two individuals. ISS considers it best practice to cancel, reprice backdated options and/or recoup gains on backdated grants in all instances. In this instance, these individuals have varying degrees of responsibility, so the actions are expected and minimally just. It is unclear what actions are being taken in other instances where individuals benefited from misdated option grants.

Based on the recommendation of the sub-committee, the company has realigned certain internal responsibilities related to the granting and reporting of stock options. The company did not renew the employment contact with the former head of human resources. Additionally, the company hired a principal compliance officer who reports directly to the Nominating and Governance Committee. The company is also reviewing the configuration of the Compensation Committee of the board.

The company has adopted a number of modifications to stock option granting procedures. The new policies and practices became effective January 1, 2007 and highlight the key revisions. Going forward, there will be pre-approved grant guidelines and all grants will be reviewed and approved by the seventh day of the following month. All grants will be approved by the Compensation committee and additional training will be provided to management and staff. Many of the recommendations have already been implemented and others will be made shortly. The new option granting policies and procedures are designed to ensure internal control surrounding the pricing and modification of option grants is adequate.

### **Vote recommendation**

Robert J. Morgado has been a member of the Compensation Committee since June 1998 and the chair since at least 2002. Barbara S. Isgur, based on electronic records, has been a member of the Compensation Committee since at least 1995. Peter J. Nolan has been a member of the Compensation Committee since June 2004. The questionable activities occurred from 1992 through early 2006. Regarding stock option backdating, the Special Subcommittee found that Robert J. Morgado and Barbara S. Isgur bear some responsibility as described earlier in the analysis. Peter J. Nolan's involvement is less clear, but still overlaps the period in question. Accordingly, ISS recommends that shareholders WITHHOLD votes from current and past Compensation Committee members for the lack of oversight in the administration of equity incentive plans during the backdating period. ISS therefore recommends WITHHOLD votes from Robert J. Morgado, Barbara S. Isgur and Peter J. Nolan who are up for board election.

## **Appendix B: Other examples of ISS/RiskMetrics' recommendations on backdating cases<sup>38</sup>**

### **Report on Cirrus Logic July 13, 2007 (annual meeting July 27, 2007) - vote recommendation:**

... The members of the Compensation Committee during one or more years during the period of deliberate option misdating (2000 to 2002) were Walden C. Rhines, D. James Guzy, Robert H. Smith, Michael L. Hackworth, and William D. Sherman. The current members of the Compensation Committee are Messrs. Rhines, Smith, and Sherman. ISS is concerned with the large size of restatement resulting from the misdated options, the significant administrative deficiencies that occurred during the nine-year period of option misdating, and the two-year period of deliberate and intentional option grant misdating. We also feel that the Special Committee appointed to investigate the option grant practices should consist of more than one director, and should be comprised of directors who have no affiliation with the backdating allegations. Mr. Sherman, the sole member of the Special Committee, served on the Compensation Committee during 2002, a year in which options were intentionally misdated. Furthermore, with regard to the company's efforts at remediation, while option grant procedures have been adjusted in an effort to prevent misdating, we note that unanimous written consents are still a grant vehicle used by the company. ISS would prefer that all option grants were administered at a meeting of the board or Compensation Committee, to ensure that the administrative issues associated with the UWCs were not a potential concern. Additionally, the \$100,000-cap placed on the repayment made by Mr. French is overly restrictive, especially in light of the fact that there is no disclosed estimate of the total recoupment opportunity. In addition, there is no disclosure of the specific options of Mr. French to be repriced and the terms of the repricing. While we recognize that the company has taken certain steps in its remediation effort, including option repricing, recoupment of gains, and implementation of a detailed process with regard to future option grants, we recommend shareholders WITHHOLD votes from Messrs. Rhines, Smith, and Sherman, all of whom were members of the Compensation Committee during the most egregious period of option misdating.

### **Report on THQ July 16, 2007 (annual meeting July 30, 2007) - vote recommendation:**

ISS will not take action against the company's Compensation Committee members in this case. There appears to be no deliberate manipulation of stock grant date for the purpose of choosing the lowest stock price in a certain period of time. According to disclosure, no grant dates were chosen with the benefit of hindsight in order to allow for the maximum option value. The errors are due to administrative deficiencies and the resulting size of restatement is small. Further, the company took action to reprice the misdated options that remained outstanding. ISS will continue to monitor the actions of the company, and specifically the Compensation Committee, to ensure that the remedial actions are adopted sufficiently and the option grant process is adequately administered going forward. We recommend a vote FOR the directors....

### **Report on Sepracor May 2, 2007 (annual meeting May 15, 2007) - vote recommendation:**

In this case, the reason for misdating of options appears to be administrative errors. The two main reasons were: (i) the effective dates for stock option grants may have preceded the dates of receipt of all necessary signatures or approvals, finalization of lists specifying stock option grants or an employee's first date of employment; and (ii) the stock option awards that were approved with exercise prices lower than fair market value on the effective date of grant. The length of time of options misdating seem to be from June 1998 – May 2001. The size of restatement of \$43.3 million is approximately 5.3% of 2005 revenue. The board has adopted a series of remedial actions, which included repricing of these misdated options by the officers and directors, adopting a stock option policy and additional training for all levels of staff and

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<sup>38</sup> Source: RiskMetrics

directors associated with option grants. At this time, ISS believes the compensation committee has taken sufficient steps to address the options backdating allegation and recommends a vote FOR all members.

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**Table 1**  
Descriptive statistics for the votes withheld sample

<i>Director characteristics</i>	All directors N = 7,582			Backdating directors N = 940		Non-backdating directors N = 6,642		Backdating directors vs. non-backdating directors			
	Mean	Std. dev.	Median	Mean	Median	Mean	Median	Mean (t-test) Difference t-statistic		Median (Wilcoxon) Difference z-statistic	
<i>Votes Withheld</i>	0.055	0.083	0.024	0.098	0.049	0.049	0.022	0.049	17.30 ***	0.027	15.98 ***
<i>New Director</i>	0.108	0.311	0.000	0.191	0.000	0.097	0.000	0.095	8.80 ***	0.000	8.75 ***
<i>Female Director</i>	0.120	0.325	0.000	0.086	0.000	0.125	0.000	-0.039	-3.45 ***	0.000	-3.45 ***
<i>Director Age &gt; 65</i>	0.283	0.451	0.000	0.252	0.000	0.288	0.000	-0.036	-2.26 **	0.000	-2.27 **
<i>Tenure</i>	7.367	7.117	5.400	6.816	4.700	7.445	5.500	-0.630	-2.54 ***	-0.800	-3.32 ***
<i>Number of Other Directorships</i>	0.797	1.212	0.000	0.884	1.000	0.784	0.000	0.100	2.36 **	1.000	3.52 ***
<i>Non-BD Related RiskMetrics Wh.</i>	0.080	0.272	0.000	0.044	0.000	0.086	0.000	-0.042	-4.44 ***	0.000	-4.44 ***

  

<i>Firm characteristics</i>	All firms N = 1,826			Backdating firms N = 261		Non-backdating firms N = 1,565		Backdating firms vs. non-backdating firms			
	Mean	Std. dev.	Median	Mean	Median	Mean	Median	Mean (t-test) Difference t-statistic		Median (Wilcoxon) Difference z-statistic	
<i>% of Outside Directors</i>	0.829	0.088	0.857	0.825	0.857	0.830	0.857	-0.005	-0.87	0.000	-2.25 **
<i>Board Size</i>	9.142	2.530	9.000	8.299	8.000	9.282	9.000	-0.984	-5.87 ***	-1.000	-6.17 ***
<i>Total CEO Compensation</i>	4.562	6.328	2.392	3.998	2.434	4.656	2.385	-0.658	-1.56	0.049	-0.78
<i>Industry Adjusted ROA</i>	0.022	0.185	0.016	-0.015	0.009	0.028	0.017	-0.043	-3.50 ***	-0.008	-3.51 ***
<i>Abnormal Returns</i>	0.036	0.406	-0.021	-0.036	-0.091	0.048	-0.013	-0.084	-3.11 ***	-0.078	-4.09 ***
<i>Non-BD Related Litigation</i>	0.017	0.129	0.000	0.027	0.000	0.015	0.000	0.011	1.33	0.000	1.33
<i>Non-BD Related Restatement</i>	0.091	0.288	0.000	0.084	0.000	0.092	0.000	-0.008	-0.40	0.000	-0.40
<i>% of Institutional Holdings</i>	0.733	0.222	0.782	0.788	0.838	0.724	0.768	0.065	4.37 ***	0.070	4.45 ***
<i>Blockholder</i>	0.904	0.295	1.000	0.962	1.000	0.894	1.000	0.068	3.44 ***	0.000	3.43 ***
<i>Assets (\$ millions)</i>	12,612	83,678	1,303	5,582	900	13,784	1,397	-8,202	-1.47	-497	-3.63 ***

Table 1 displays the descriptive statistics for the 7,582 director-firm and 1,826 firm-year observations in the Votes Withheld sample (note that we have 261 firm-year observations for the 178 backdating firms in the sample because firms with staggered boards are in the sample for two years in a row). *Votes Withheld* is the number of votes withheld from a director scaled by the sum of votes cast (source: Voting Analytics). For directors at backdating firms with annual elections (staggered boards), *Votes Withheld* is measured at the first (first or second) annual meeting subsequent to the revelation of backdating. For directors at non-backdating firms, *Votes Withheld* is measured at the 2007 annual meeting. *New Director* is an indicator variable that is equal to one if the director is in his/her first year on the board (source: Boardex). *Female Director* is an indicator variable that is equal to one for female directors (source: Boardex). *Director Age > 65* is an indicator variable that is equal to one if the director is older than 65 at the time of the annual meeting (source: Boardex). *Tenure* is the number of years the director has been on the board at the time of the annual meeting (source: Boardex). *Number of Other Directorships* is the number of other boards (in the Boardex universe) on which the director sits in the year of the annual meeting (source: Boardex). *Non-BD Related RiskMetrics Wh. Rec.* is an indicator variable that is equal to one if the director received a non-backdating related withhold recommendation from RiskMetrics at the annual meeting (source: Voting Analytics and RiskMetrics reports). *% of Outside Directors* is the percentage of independent directors sitting on the board at the time of the annual meeting (source: Boardex). *Board Size* is the number of directors sitting on the board at the time of the annual meeting (source: Boardex). *Total CEO Compensation* is total CEO compensation calculated as the sum of salary, bonus, non-equity incentive plan compensation, grant-date fair value of option awards, grant-date fair value of stock awards, and other compensation for the fiscal year ending before the annual meeting (source: Boardex and hand collection from proxy statements). *Industry Adjusted ROA* is the firm's return on assets (ROA) less average ROA for firms in the same two-digit SIC code for the most recent fiscal year ending before the annual meeting. We calculate ROA as earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets (source: Compustat). *Abnormal Returns* is size-adjusted returns for the most recent fiscal year ending before the annual meeting (source: CRSP). *Non-BD Related Litigation* is an indicator variable that is equal to one if the firm is targeted by a non-backdating related class-action lawsuit filed over the period from the beginning of the fiscal year prior to the annual meeting to the annual meeting date (source: Woodruff-Sawyer & Co. Class Action Lawsuit Dataset). *Non-BD Related Restatement* is an indicator variable that is equal to one if the firm files a non-backdating related restatement over the period from the beginning of the fiscal year prior to the annual meeting to the annual meeting date (source: Audit Analytics). *% of Institutional Holdings* is the percentage of equity owned by institutions based on 13-F filings (source: Thomson Reuters). *Blockholder* is an indicator variable that is equal to one if there is at least one institution that owns at least 5% of the firm's equity based on 13-F filings (source: Thomson Reuters). *Assets* is total assets (Compustat item *at*) in millions for the fiscal year ending before the annual meeting (source: Compustat).

\*\*\*, \*\*, and \* denote significance at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test.

**Table 2**  
Determinants of votes withheld

Variable	Model (1)		Model (2)		Model (3)		Model (4)	
	Current board membership		Backdating period board membership		Current committee membership		Backdating period & current committee membership	
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat
<i>Intercept</i>	0.0375	0.96	0.0408	1.06	0.0269	0.70	0.0302	0.79
<i>Director BD Firm</i>	0.0516	7.73 ***						
<i>Director BD Firm - On Board During BD Period</i>			0.0671	7.71 ***				
<i>Director BD Firm - Not on Board During BD Period</i>			0.0294	4.12 ***				
<i>CC Director Non-BD Firm</i>					0.0057	2.72 ***	0.0059	2.81 ***
<i>AC Director Non-BD Firm</i>					0.0052	2.33 **	0.0053	2.38 **
<i>CC Director BD Firm</i>					0.0766	8.41 ***		
<i>AC Director BD Firm</i>					0.0375	5.79 ***		
<i>Other Director BD Firm</i>					0.0374	4.06 ***		
<i>CC Director BD Firm - On CC During BD Period</i>							0.0976	7.41 ***
<i>CC Director BD Firm - Not on CC During BD Period</i>							0.0626	4.59 ***
<i>CC Director BD Firm - Not on Board During BD Period</i>							0.0484	4.99 ***
<i>AC Director BD Firm - On CC During BD Period</i>							0.0985	5.22 ***
<i>AC Director BD Firm - Not on CC During BD Period</i>							0.0255	3.05 ***
<i>AC Director BD Firm - Not on Board During BD Period</i>							0.0187	2.66 ***
<i>Other Director BD Firm - On CC During BD Period</i>							0.1032	3.91 ***
<i>Other Director BD Firm - Not on CC During BD Period</i>							0.0201	2.03 **
<i>Other Director BD Firm - Not on Board During BD Period</i>							0.0334	2.60 ***
<i>New Director</i>	-0.0078	-2.75 ***	-0.0033	-1.28	-0.0059	-2.11 **	-0.0025	-0.96
<i>Female Director</i>	-0.0027	-1.41	-0.0020	-1.05	-0.0027	-1.45	-0.0018	-0.97
<i>Director Age &gt; 65</i>	-0.0001	-0.04	0.0001	0.07	-0.0003	-0.16	-0.0003	-0.20
<i>Tenure</i>	0.0007	4.54 ***	0.0006	3.93 ***	0.0007	4.86 ***	0.0006	4.16 ***
<i>Number of Other Directorships</i>	0.0004	0.62	0.0004	0.64	0.0002	0.32	0.0003	0.43
<i>% of Outside Directors</i>	0.0072	0.43	0.0078	0.47	0.0117	0.70	0.0126	0.76
<i>Board Size</i>	-0.0013	-1.90 *	-0.0011	-1.52	-0.0011	-1.53	-0.0009	-1.27
<i>Total CEO Compensation</i>	0.0004	1.59	0.0005	1.81 *	0.0004	1.60	0.0005	1.84 *
<i>Industry Adjusted ROA</i>	-0.0375	-1.91 *	-0.0419	-2.45 **	-0.0374	-1.91 *	-0.0422	-2.49 **
<i>Abnormal Returns</i>	0.0048	1.24	0.0043	1.11	0.0053	1.39	0.0047	1.22
<i>Non-BD Related Litigation</i>	0.0230	1.14	0.0263	1.25	0.0238	1.22	0.0259	1.29
<i>Non-BD Related Restatement</i>	-0.0058	-1.19	-0.0047	-0.97	-0.0056	-1.17	-0.0048	-1.00
<i>Non-BD Related RiskMetrics Wh. Rec.</i>	0.1801	20.45 ***	0.1814	20.48 ***	0.1816	20.61 ***	0.1830	20.64 ***
<i>% of Institutional Holdings</i>	0.0489	5.91 ***	0.0504	6.04 ***	0.0494	6.02 ***	0.0491	6.02 ***
<i>Blockholder</i>	0.0038	1.04	0.0016	0.45	0.0036	1.00	0.0022	0.59
<i>ln(Assets)</i>	0.0001	0.05	-0.0007	-0.52	0.0000	-0.02	-0.0007	-0.54
N	7,582		7,515		7,582		7,515	
Adjusted R <sup>2</sup>	41.40%		42.50%		42.10%		43.90%	

**Table 2** (continued)

	Model (2)		Model (3)		Model (4)	
	<i>Backdating period board membership</i>		<i>Current committee membership</i>		<i>Backdating period &amp; current committee membership</i>	
<b>Panel A (continued)</b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>
<b>Selected Wald tests</b>						
<b>Effect of back dating period board membership</b>						
<i>On Board During BD Period versus Not On Board During BD Period</i>	0.0377	16.87 ***				
<b>Effect of current committee membership</b>						
<i>CC Director BD Firm versus CC Director Non-BD Firm</i>			0.0709	62.00 ***		
<i>AC Director BD Firm versus AC Director Non-BD Firm</i>			0.0323	25.66 ***		
<i>CC Director BD Firm versus AC Director BD Firm</i>			0.0391	20.12 ***		
<i>CC Director BD Firm versus Other Director BD Firm</i>			0.0392	19.38 ***		
<i>AC Director BD Firm versus Other Director BD Firm</i>			0.0001	0.00		
<b>Effect of back dating period board and compensation committee membership</b>						
<i>CC Director BD Firm - On CC During BD Period versus Not on Board During BD Period</i>					0.0492	11.77 ***
<i>CC Director BD Firm - On CC During BD Period versus Not on CC During BD Period</i>					0.0350	4.25 **
<i>CC Director BD Firm - Not on Board During BD Period versus Not on CC During BD Period</i>					-0.0142	0.90
<i>AC Director BD Firm - On CC During BD Period versus Not on Board During BD Period</i>					0.0798	17.85 ***
<i>AC Director BD Firm - On CC During BD Period versus Not on CC During BD Period</i>					0.0730	13.09 ***
<i>AC Director BD Firm - Not on Board During BD Period versus Not on CC During BD Period</i>					-0.0068	0.43
<i>Other Director BD Firm - On CC During BD Period versus Not on Board During BD Period</i>					0.0698	6.00 ***
<i>Other Director BD Firm - On CC During BD Period versus Not on CC During BD Period</i>					0.0831	9.61 ***
<i>Other Director BD Firm - Not on Board During BD Period versus Not on CC During BD Period</i>					0.0133	0.68
<b>Effect of current committee membership conditional on compensation committee membership during back dating period</b>						
<i>CC Director BD Firm versus AC Director BD Firm</i>					-0.0009	0.00
<i>CC Director BD Firm versus Other Director BD Firm</i>					-0.0056	0.04
<i>AC Director BD Firm versus Other Director BD Firm</i>					-0.0047	0.02

**Table 2 (continued)**  
**Panel B: Additional analyses**

Panel B Additional analyses Variable	Effect of restatement amount		Effect of BD Related RiskMetrics Wh. Rec.		Effect of BD Related RiskMetrics Wh. Rec. & BD Period CC Membership	
	Model (1)		Model (2)		Model (3)	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	0.0304	0.79	0.0353	0.93	0.0340	0.89
Director BD Firm - High Restatement	0.0959	6.10 ***				
Director BD Firm - Low Restatement	0.0279	4.08 ***				
Director BD Firm - BD Related RiskMetrics Wh. Rec.			0.2711	10.92 ***		
Director BD Firm - No BD Related RiskMetrics Wh. Rec.			0.0217	4.99 ***		
Director BD Firm - On CC during BD Period & BD Related RiskMetrics Wh. Rec.					0.3073	13.90 ***
Director BD Firm - Not On CC during BD Period & BD Related RiskMetrics Wh. Rec.					0.1540	3.71 ***
Director BD Firm - On CC during BD Period & No BD Related RiskMetrics Wh. Rec.					0.0300	4.92 ***
Director BD Firm - Not On CC during BD Period & No BD Related RiskMetrics Wh. Rec.					0.0176	3.80 ***
New Director	-0.0082	-2.89 ***	-0.0027	-0.95	-0.0012	-0.45
Female Director	-0.0019	-1.04	-0.0009	-0.50	-0.0007	-0.41
Director Age > 65	0.0004	0.26	0.0006	0.40	0.0004	0.27
Tenure	0.0007	4.59 ***	0.0006	4.67 ***	0.0006	4.30 ***
Number of Other Directorships	0.0005	0.74	0.0006	0.97	0.0006	1.06
% of Outside Directors	0.0073	0.44	0.0116	0.76	0.0107	0.71
Board Size	-0.0011	-1.54	-0.0010	-1.69 *	-0.0009	-1.49
Total CEO Compensation	0.0004	1.25	0.0005	1.88 *	0.0005	1.92 *
Industry Adjusted ROA	-0.0349	-1.62	-0.0375	-1.95 *	-0.0385	-2.07 **
Abnormal Returns	0.0068	1.81 *	0.0051	1.44	0.0050	1.42
Non-BD Related Litigation	0.0135	0.66	0.0263	1.74 *	0.0251	1.75 *
Non-BD Related Restatement	-0.0034	-0.74	-0.0029	-0.66	-0.0032	-0.71
Non-BD Related RiskMetrics Wh. Rec.	0.1806	20.50 ***	0.1823	20.60 ***	0.1823	20.61 ***
% of Institutional Holdings	0.0550	6.50 ***	0.0519	6.92 ***	0.0518	6.97 ***
Blockholder	0.0025	0.70	0.0020	0.59	0.0022	0.66
ln(Assets)	0.0004	0.28	-0.0008	-0.66	-0.0009	-0.76
N	7,582		7,559		7,559	
Adjusted R <sup>2</sup>	42.60%		52.10%		52.90%	

  

Wald tests	Coefficient	$\chi^2$	Coefficient	$\chi^2$	Coefficient	$\chi^2$
Director BD Firm - High Restatement versus Director BD Firm - Low Restatement	0.0680	14.8 ***				
Director BD Firm - BD Related RiskMetrics Wh. Rec. versus Director BD Firm - No BD Related RiskMetrics Wh. Rec.			0.2494	99.28 ***		
Director BD Firm - BD Related RiskMetrics Wh. Rec. versus Non-BD Related RiskMetrics Wh. Rec.			0.0888	11.52 ***		
Director BD Firm - On CC during BD Period & BD Related RiskMetrics Wh. Rec. versus Director BD Firm - Not On CC during BD Period & BD Related RiskMetrics Wh. Rec.					0.1533	13.12 ***

Table 2 displays the results from the estimation of Eq. (1) from Section 4.1. Panel A reports the results for the effect of involvement in option backdating on votes withheld from directors. Panel B reports the results for the additional analyses.

The dependent variable in Panels A and B, *Votes Withheld*, is the number of votes withheld from a director scaled by the sum of votes cast (source: Voting Analytics). For directors at backdating firms with annual elections (staggered boards), *Votes Withheld* is measured at the first (first or second) annual meeting subsequent to the revelation of backdating. For directors at non-backdating firms, *Votes Withheld* is measured at the 2007 annual meeting.

The variable of interest in Panel A Model (1), *Director BD Firm*, is an indicator variable that is equal to one for directors at backdating firms. Models (2) – (4) differentiate among directors at backdating firms based on their backdating period board and committee membership and current committee membership. *AC* and *CC* denote audit committee and compensation committee, respectively.

The variables of interest in Panel B, Model (1), *Director BD Firm – High Restatement* (*Director BD Firm – Low Restatement*), are indicator variables that are equal to one if the director sits on the board of a backdating firm in which the restatement amount is (is not) in the top quartile of the restatement amount distribution. In Model (2), *Director BD Firm – BD Related RiskMetrics Wh. Rec.* (*Director BD Firm – No BD Related RiskMetrics Wh. Rec.*) is an indicator variable that is equal to one if RiskMetrics issues (does not issue) a backdating-related withhold recommendation for the director. The variables of interest in Model (3) are *Director BD Firm – On CC During BD Period & BD Related RiskMetrics Wh. Rec.*, *Director BD Firm – Not on CC During BD Period & BD Related RiskMetrics Wh. Rec.*, *Director BD Firm – On CC During BD Period & No BD Related RiskMetrics Wh. Rec.*, and *Director BD Firm – Not on CC During BD Period & No BD Related RiskMetrics Wh. Rec.* These four indicator variables capture various combinations of whether the director sits on the CC during the BD period and has received a BD related withhold recommendation from RiskMetrics.

Control variables are defined as follows. *New Director* is an indicator variable that is equal to one if the director is in his/her first year on the board (source: Boardex). *Female Director* is an indicator variable that is equal to one for female directors (source: Boardex). *Director Age > 65* is an indicator variable that is equal to one if the director is older than 65 at the time of the annual meeting (source: Boardex). *Tenure* is the number of years the director has been on the board at the time of the annual meeting (source: Boardex). *Number of Other Directorships* is the number of other boards (in the Boardex universe) on which the director sits in the year of the annual meeting (source: Boardex). *Non-BD Related RiskMetrics Wh. Rec.* is an indicator variable that is equal to one if the director received a non-backdating related withhold recommendation from RiskMetrics at the annual meeting (source: Voting Analytics and RiskMetrics reports). *% of Outside Directors* is the percentage of independent directors sitting on the board at the time of the annual meeting (source: Boardex). *Board Size* is the number of directors sitting on the board at the time of the annual meeting (source: Boardex). *Total CEO Compensation* is total CEO compensation calculated as the sum of salary, bonus, non-equity incentive plan compensation, grant-date fair value of option awards, grant-date fair value of stock awards, and other compensation for the fiscal year ending before the annual meeting (source: Boardex and hand collection from proxy statements). *Industry Adjusted ROA* is the firm's return on assets (ROA) less average ROA for firms in the same two-digit SIC code for the most recent fiscal year ending before the annual meeting. We calculate ROA as earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets (source: Compustat). *Abnormal Returns* is size-adjusted returns for the most recent fiscal year ending before the annual meeting (source: CRSP). *Non-BD Related Litigation* is an indicator variable that is equal to one if the firm is targeted by a non-backdating related class-action lawsuit filed over the period from the beginning of the fiscal year prior to the annual meeting to the annual meeting date (source: Woodruff-Sawyer & Co. Class Action Lawsuit Dataset). *Non-BD Related Restatement* is an indicator variable that is equal to one if the firm files a non-backdating related restatement over the period from the beginning of the fiscal year prior to the annual meeting to the annual meeting date (source: Audit Analytics). *% of Institutional Holdings* is the percentage of equity owned by institutions based on 13-F filings (source: Thomson Reuters). *Blockholder* is an indicator variable that is equal to one if there is at least one institution that owns at least 5% of the firm's equity based on 13-F filings (source: Thomson Reuters). *Assets* is total assets (Compustat item *at*) in millions for the fiscal year ending before the annual meeting (source: Compustat).

\*\*\*, \*\*, and \* denote significance at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test. Reported t-statistics are based on standard errors estimated using firm- and director-level clustering.

**Table 3**

Descriptive statistics for the director turnover sample

<i>Director characteristics</i>	<b>All directors</b>			<b>Backdating directors</b>		<b>Non-backdating directors</b>		<b>Backdating directors vs. non-backdating directors</b>			
	N = 16,546			N = 1,178		N = 15,368					
<b>Variable</b>	<b>Mean</b>	<b>Std. dev.</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>	<b>Mean (t-test)</b>		<b>Median (Wilcoxon)</b>	
								Difference	t-statistic	Difference	z-statistic
<i>Director Turnover</i>	0.155	0.362	0.000	0.188	0.000	0.153	0.000	0.036	3.26 ***	0.000	3.26 ***
<i>Director Turnover - CC Director</i>	0.141	0.348	0.000	0.197	0.000	0.137	0.000	0.060	3.97 ***	0.000	3.97 ***
<i>Director Turnover - AC Director</i>	0.129	0.335	0.000	0.128	0.000	0.129	0.000	-0.002	-0.09	0.000	-0.09
<i>Director Turnover - Other Director</i>	0.213	0.409	0.000	0.245	0.000	0.210	0.000	0.035	1.36	0.000	1.36
<i>Female Director</i>	0.100	0.300	0.000	0.077	0.000	0.102	0.000	-0.025	-2.70 ***	0.000	-2.70 ***
<i>Director Age &gt; 65</i>	0.278	0.448	0.000	0.248	0.000	0.280	0.000	-0.032	-2.39 **	0.000	-2.39 **
<i>Tenure</i>	7.435	7.134	5.400	7.220	5.400	7.451	5.400	-0.231	1.07	0.000	0.01
<i>Number of Other Directorships</i>	0.627	1.048	0.000	0.878	1.000	0.608	0.000	0.270	8.53 ***	1.000	10.97 ***

  

<i>Firm characteristics</i>	<b>All firms</b>			<b>Backdating firms</b>		<b>Non-backdating firms</b>		<b>Backdating firms vs. non-backdating firms</b>			
	N = 2,417			N = 186		N = 2,231					
<b>Variable</b>	<b>Mean</b>	<b>Std. dev.</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>	<b>Mean (t-test)</b>		<b>Median (Wilcoxon)</b>	
								Difference	t-statistic	Difference	z-statistic
<i>% of Outside Directors</i>	0.818	0.095	0.857	0.820	0.857	0.818	0.857	0.002	0.22	0.000	-0.58
<i>Board Size</i>	8.742	2.676	8.000	8.113	8.000	8.794	8.000	-0.681	-3.34 ***	0.000	-3.21 ***
<i>Industry Adjusted ROA</i>	-0.004	0.215	0.005	-0.015	0.005	-0.004	0.005	-0.011	-0.68	-0.001	-0.78
<i>Abnormal Returns</i>	0.011	0.435	-0.050	-0.040	-0.122	0.015	-0.046	-0.055	-1.66 *	-0.076	-2.92 ***
<i>CEO Turnover</i>	0.102	0.303	0.000	0.194	0.000	0.095	0.000	0.099	4.30 ***	0.000	4.28 ***
<i>Non-BD Related Litigation</i>	0.029	0.168	0.000	0.027	0.000	0.029	0.000	-0.002	-0.17	0.000	-0.18
<i>Non-BD Related Restatement</i>	0.089	0.285	0.000	0.070	0.000	0.091	0.000	-0.021	-0.97	0.000	-0.97
<i>% of Institutional Holdings</i>	0.589	0.302	0.641	0.771	0.822	0.574	0.621	0.198	8.70 ***	0.201	8.55 ***
<i>Blockholder</i>	0.819	0.385	1.000	0.957	1.000	0.808	1.000	0.149	5.11 ***	0.000	5.08 ***
<i>Assets (\$ millions)</i>	9,508	72,907	698	6,851	839	9,730	680	-2,879	0.52	159	1.80 *

Table 3 displays the descriptive statistics for the 16,546 directors and 2,417 firms in the Director Turnover sample. *Director Turnover* is an indicator variable equal to one if the director loses her/his board seat (source: Boardex). For directors at backdating firms, we set director turnover equal to one if the director is no longer on the board as of the second annual meeting following the revelation of option backdating (“the annual meeting of interest”). For directors at non-backdating firms, we set director turnover equal to one if the director is no longer on the board as of the first or second annual meeting following the annual meeting in 2006. *Director Turnover – CC (AC, Other)* is defined as director turnover, but only for directors sitting on the compensation committee (audit committee, other directors). *Female Director* is an indicator variable that is equal to one for female directors (source: Boardex). *Director Age > 65* is an indicator variable that is equal to one if the director is older than 65 (source: Boardex). *Tenure* is the number of years the director has been on the board (source: Boardex). *Number of Other Directorships* is the number of other boards (in the Boardex universe) on which the director sits (source: Boardex). We measure all director characteristics at the most recent annual meeting preceding the revelation of backdating. *% of Outside Directors* is the percentage of independent directors sitting on the board at the time of the annual meeting of interest (source: Boardex). *Board Size* is the number of directors sitting on the board at the time of the annual meeting (source: Boardex). *Industry Adjusted ROA* is the firm’s return on assets (ROA) less average ROA for firms in the same two-digit SIC code for the most recent fiscal year ending before the annual meeting of interest. We calculate ROA as earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets (source: Compustat). *Abnormal Returns* is size-adjusted returns for the most recent fiscal year ending before the annual meeting of interest (source: CRSP). *CEO Turnover* is an indicator variable equal to one if the CEO leaves the firm during the year prior to the annual meeting of interest. *Non-BD Related Litigation* is an indicator variable that is equal to one if the firm is targeted by a non-backdating related class-action lawsuit filed over the period from the beginning of the fiscal year prior to the annual meeting of interest to the annual meeting date (source: Woodruff-Sawyer & Co. Class Action Lawsuit Dataset). *Non-BD Related Restatement* is an indicator variable that is equal to one if the firm files a non-backdating related restatement over the period from the beginning of the fiscal year prior to the annual meeting of interest to the annual meeting date (source: Audit Analytics). *% of Institutional Holdings* is the percentage of equity owned by institutions based on 13-F filings (source: Thomson Reuters). *Blockholder* is an indicator variable that is equal to one if there is at least one institution that owns at least 5% of the firm’s equity based on 13-F filings (source: Thomson Reuters). *Assets* is total assets (Compustat item *at*) in millions for the fiscal year ending before the annual meeting of interest (source: Compustat).

\*\*\*, \*\*, and \* denote significance at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test.

**Table 4**  
Determinants of director turnover

Panel A The effect of involvement in option backdating Variable	Model (1) Current board membership		Model (2) Backdating period board membership		Model (3) Current committee membership		Model (4) Backdating period & current committee membership	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	-2.9945	-4.85 ***	-3.0082	-4.87 ***	-2.3556	-3.59 ***	-2.3664	-3.60 ***
Director BD Firm	0.1893	1.84 *						
Director BD Firm - On Board During BD Period			0.2024	1.75 *				
Director BD Firm - Not on Board During BD Period			0.2008	0.88				
CC Director Non-BD Firm					-0.5510	-9.79 ***	-0.5516	-9.80 ***
AC Director Non-BD Firm					-0.5595	-8.77 ***	-0.5602	-8.77 ***
CC Director BD Firm					-0.1837	-1.39		
AC Director BD Firm					-0.6793	-3.27 ***		
Other Director BD Firm					0.0885	0.51		
CC Director BD Firm - On CC During BD Period							-0.1708	-1.13
CC Director BD Firm - Not on CC During BD Period							0.1965	0.51
CC Director BD Firm - Not on Board During BD Period							-0.5070	-1.27
AC Director BD Firm - On CC During BD Period							-0.7086	-1.76 *
AC Director BD Firm - Not on CC During BD Period							-0.6451	-2.41 **
AC Director BD Firm - Not on Board During BD Period							-0.5680	-1.39
Other Director BD Firm - On CC During BD Period							0.2396	0.77
Other Director BD Firm - Not on CC During BD Period							-0.0580	-0.23
Other Director BD Firm - Not on Board During BD Period							0.4113	1.12
Female Director	-0.0744	-0.92	-0.0681	-0.85	-0.0668	-0.82	-0.0598	-0.74
Director Age > 65	0.6596	12.00 ***	0.6650	12.07 ***	0.6843	12.48 ***	0.6891	12.53 ***
Tenure	0.0152	4.63 ***	0.0150	4.56 ***	0.0117	3.54 ***	0.0116	3.49 ***
Number of Other Directorships	-0.0887	-3.08 ***	-0.0862	-3.00 ***	-0.0753	-2.65 ***	-0.0732	-2.58 ***
% of Outside Directors	0.8280	2.36 **	0.8485	2.41 **	0.6347	1.81 *	0.6533	1.85 *
Board Size	-0.0231	-1.51	-0.0236	-1.54	-0.0353	-2.31 **	-0.0361	-2.35 **
Industry Adjusted ROA	-0.6264	-3.57 ***	-0.6239	-3.50 ***	-0.5949	-3.38 ***	-0.5896	-3.31 ***
Abnormal Returns	-0.1269	-1.79 *	-0.1309	-1.83 *	-0.1279	-1.80 *	-0.1327	-1.86 *
CEO Turnover	0.3151	3.58 ***	0.3031	3.41 ***	0.3187	3.64 ***	0.3075	3.47 ***
Non-BD Related Litigation	-0.0879	-0.48	-0.0921	-0.51	-0.0852	-0.47	-0.0919	-0.50
Non-BD Related Restatement	0.0933	0.99	0.1049	1.11	0.0935	1.00	0.1041	1.10
% of Institutional Holdings	-0.0002	0.00	0.0066	0.04	0.0106	0.07	0.0155	0.10
Blockholder	0.0451	0.53	0.0348	0.41	0.0537	0.63	0.0440	0.51
ln(Assets)	0.0280	1.25	0.0283	1.26	0.0311	1.39	0.0318	1.42
N	16,546		16,441		16,546		16,441	
N (Director Turnover = 1)	2,569		2,551		2,569		2,551	
Pseudo R <sup>2</sup>	3.42%		3.43%		4.31%		4.34%	

**Table 4** (continued)

	Model (2)		Model (3)		Model (4)	
	<i>Backdating period board membership</i>		<i>Current committee membership</i>		<i>Backdating period &amp; current committee membership</i>	
<b>Panel A (continued)</b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>
<b>Selected Wald Tests</b>						
<b>Effect of backdating period board membership</b>						
<i>On Board During BD Period versus Not On Board During BD Period</i>	0.0016	0.00				
<b>Effect of current committee membership</b>						
<i>CC Director BD Firm versus CC Director Non-BD Firm</i>			0.3673	8.23 ***		
<i>AC Director BD Firm versus AC Director Non-BD Firm</i>			-0.1198	0.34		
<i>CC Director BD Firm versus AC Director BD Firm</i>			0.4956	5.02 **		
<i>CC Director Non-BD Firm versus AC Director Non-BD Firm</i>			0.0085	0.02		
<b>Effect of backdating period board and committee membership conditional on current committee membership</b>						
<b>Within current CC directors</b>						
<i>On CC During BD Period versus Not on CC During BD Period</i>					-0.3673	0.84
<i>On CC During BD Period versus Not on Board During BD Period</i>					0.3362	0.65
<b>Within current AC directors</b>						
<i>On CC During BD Period versus Not on CC During BD Period</i>					-0.0635	0.02
<i>On CC During BD Period versus Not on Board During BD Period</i>					-0.1406	0.07
<b>Within current other directors</b>						
<i>On CC During BD Period versus Not on CC During BD Period</i>					0.2976	0.73
<i>On CC During BD Period versus Not on Board During BD Period</i>					-0.1717	0.12
<b>Effect of backdating period board and committee membership conditional on current audit committee membership</b>						
<i>On CC During BD Period versus AC Director Non-BD Firm</i>					-0.1484	0.14
<i>Not on CC During BD Period versus AC Director Non-BD Firm</i>					-0.0849	0.10
<i>Not on Board During BD Period versus AC Director Non-BD Firm</i>					-0.0078	0.00
<b>Effect of backdating period board and committee membership conditional on current compensation committee membership</b>						
<i>On CC During BD Period versus CC Director Non-BD Firm</i>					0.3808	6.65 ***
<i>Not on CC During BD Period versus CC Director Non-BD Firm</i>					0.7481	3.85 **
<i>Not on Board During BD Period versus CC Director Non-BD Firm</i>					0.0446	0.01

**Table 4** (continued)

Panel B Additional analyses	Benchmark		Effect of restatement amount		Effect of performance		Effect of restatement amount & performance	
	Model (1)		Model (2)		Model (3)		Model (4)	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Intercept	-3.9976	-4.60 ***	-4.0116	-4.63 ***	-4.0432	-4.64 ***	-4.0324	-4.66 ***
CC Director BD Firm	0.3964	2.97 ***						
CC Director BD Firm - High Restatement			0.6499	2.67 ***				
CC Director BD Firm - Low Restatement			0.1790	1.18				
CC Director BD Firm - High Performance					0.1450	0.93		
CC Director BD Firm - Low Performance					0.9790	4.34 ***		
CC Director BD Firm - Low Performance & High Restatement							1.0945	2.76 ***
CC Director BD Firm - Low Performance & Low Restatement							-0.0844	-0.31
CC Director BD Firm - High Performance & High Restatement							0.3256	1.21
CC Director BD Firm - High Performance & Low Restatement							0.2644	1.47
Female Director	0.0115	0.09	0.0134	0.11	0.0164	0.13	0.0159	0.13
Director Age > 65	0.6656	8.80 ***	0.6684	8.84 ***	0.6666	8.79 ***	0.6765	8.94 ***
Tenure	0.0203	3.97 ***	0.0203	3.98 ***	0.0204	4.01 ***	0.0203	3.98 ***
Number of Other Directorships	-0.0650	-1.71 *	-0.0626	-1.65 *	-0.0655	-1.73 *	-0.0628	-1.66 *
% of Outside Directors	1.2974	2.93 ***	1.2925	2.92 ***	1.3448	3.03 ***	1.3157	2.98 ***
Board Size	-0.0278	-1.44	-0.0266	-1.38	-0.0285	-1.47	-0.0270	-1.40
Industry Adjusted ROA	-0.6895	-2.88 ***	-0.6843	-2.86 ***	-0.5883	-2.50 **	-0.6796	-2.85 ***
Abnormal Returns	-0.0468	-0.51	-0.0404	-0.44	-0.0268	-0.29	-0.0373	-0.40
CEO Turnover	0.2785	2.55 **	0.2712	2.47 **	0.2768	2.54 **	0.2711	2.47 **
Non-BD Related Litigation	0.1491	0.73	0.0892	0.43	0.1392	0.71	0.0745	0.36
Non-BD Related Restatement	-0.0903	-0.66	-0.0913	-0.66	-0.0964	-0.70	-0.0900	-0.65
% of Institutional Holdings	-0.0481	-0.24	-0.0217	-0.11	-0.0235	-0.12	-0.0102	-0.05
Blockholder	0.1073	0.91	0.0973	0.83	0.0859	0.73	0.0928	0.79
ln(Assets)	0.0408	1.34	0.0403	1.32	0.0427	1.40	0.0400	1.30
N	7,991		7,991		7,991		7,991	
N (Director Turnover = 1)	1,133		1,133		1,133		1,133	
Pseudo R <sup>2</sup>	4.09%		4.11%		4.26%		4.19%	
<b>Wald tests</b>			<b>Coefficient</b>	<b><math>\chi^2</math></b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>
Director BD Firm - High Restatement versus Low Restatement			0.4709	2.75 *				
Director BD Firm - High Performance versus Low Performance					0.8340	9.98 ***		
Director BD Firm - Low Performance & High Restatement versus Low Performance & Low Restatement							1.1789	5.82 **
Director BD Firm - High Performance & High Restatement versus High Performance & Low Restatement							0.0612	0.04
Director BD Firm - Low Performance & High Restatement versus High Performance & High Restatement							0.7689	2.70
Director BD Firm - Low Performance & Low Restatement versus High Performance & Low Restatement							-0.3488	1.20

Table 4 displays the results from the estimation of Eq. (2). Panel A reports the results for the effect of involvement in option backdating on director turnover. Panel B reports the results for the additional analyses.

The dependent variable in Panels A and B, *Director Turnover*, is an indicator variable equal to one if the director loses her/his board seat (source: Boardex). For directors at backdating firms, we set director turnover equal to one if the director is no longer on board as of the second annual meeting following the revelation of option backdating (“the annual meeting of interest”). For directors at non-backdating firms, we set director turnover equal to one if the director is no longer on the board as of the second annual meeting following the annual meeting in 2006.

The variable of interest in Panel A, Model (1), *Director BD Firm*, is an indicator variable that is equal to one for directors at backdating firms. In Models (2) – (4), we differentiate among directors at backdating firms based on their current committee membership and backdating period board and committee membership. *AC* and *CC* denote audit committee and compensation committee, respectively.

The variable of interest in Panel B, Model (1), *CC Director BD Firm*, is an indicator variable that is equal to one if the director is a CC member at a backdating firm. The variables of interest in Model (2), *CC Director BD Firm – High Restatement* (*CC Director BD Firm – Low Restatement*), are indicator variables that are equal to one if the director sits on the CC of a backdating firm in which the restatement amount is (is not) in the top quartile of the restatement amount distribution. The variables of interest in Model (3) are *CC Director BD Firm – Performance High* and *CC Director BD Firm – Performance Low*. These two indicator variables are equal to one if the director sits on the CC of a backdating firm in which industry-adjusted ROA was, respectively, above or below the bottom quartile of the industry-adjusted ROA distribution. The variables of interest in Model (3) are *CC Director BD Firm – Low Performance & High Restatement*, *CC Director BD Firm – Low Performance & Low Restatement*, *CC Director BD Firm – High Performance & High Restatement*, and *CC Director BD Firm – High Performance & Low Restatement*. These four indicator variables capture various combinations of restatement amount and performance, as defined in Models (2) and (3).

Control variables are defined as follows. *Female Director* is an indicator variable that is equal to one for female directors (source: Boardex). *Director Age > 65* is an indicator variable that is equal to one if the director is older than 65 (source: Boardex). *Tenure* is the number of years the director has been on the board (source: Boardex). *Number of Other Directorships* is the number of other boards (in the Boardex universe) on which the director sits (source: Boardex). We measure all director characteristics at the most recent annual meeting preceding the revelation of backdating. *% of Outside Directors* is the percentage of independent directors sitting on the board at the time of the annual meeting of interest (source: Boardex). *Board Size* is the number of directors sitting on the board at the time of the annual meeting (source: Boardex). *Industry Adjusted ROA* is the firm’s return on assets (ROA) less average ROA for firms in the same two-digit SIC code for the most recent fiscal year ending before the annual meeting of interest. We calculate ROA as earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets (source: Compustat). *Abnormal Returns* is size-adjusted returns for the most recent fiscal year ending before the annual meeting of interest (source: CRSP). *CEO Turnover* is an indicator variable equal to one if the CEO leaves the firm during the year prior to the annual meeting of interest. *Non-BD Related Litigation* is an indicator variable that is equal to one if the firm is targeted by a non-backdating related class-action lawsuit filed over the period from the beginning of the fiscal year prior to the annual meeting of interest to the annual meeting date (source: Woodruff-Sawyer & Co. Class Action Lawsuit Dataset). *Non-BD Related Restatement* is an indicator variable that is equal to one if the firm files a non-backdating related restatement over the period from the beginning of the fiscal year ending prior to the annual meeting of interest to the annual meeting date (source: Audit Analytics). *% of Institutional Holdings* is the percentage of equity owned by institutions based on 13-F filings (source: Thomson Reuters). *Blockholder* is an indicator variable that is equal to one if there is at least one institution that owns at least 5% of the firm’s equity based on 13-F filings (source: Thomson Reuters). *ln(Assets)* is the natural logarithm of total assets (Compustat item *at*) in millions for the fiscal year ending before the annual meeting of interest (source: Compustat).

\*\*\*, \*\*, and \* denote significance at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test. Reported t-statistics are based on standard errors estimated using firm- and director-level clustering.

**Table 5**

Determinants of votes withheld at non-backdating firms: the effect of involvement in option backdating

Variable	Model (1)		Model (2)		Model (3)	
	<i>Current board membership</i>		<i>Backdating period board membership</i>		<i>Current committee membership</i>	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
<i>Intercept</i>	0.0471	1.25	0.0472	1.25	0.0398	1.07
<i>Director BD Firm</i>	0.0050	1.57				
<i>Director BD Firm - On Board During BD Period</i>			0.0053	1.57		
<i>Director BD Firm - Not on Board During BD Period</i>			0.0047	0.62		
<i>CC Director Non-BD Firm</i>					0.0055	2.86 ***
<i>AC Director Non-BD Firm</i>					0.0050	2.48 **
<i>CC Director BD Firm</i>					0.0036	0.74
<i>AC Director BD Firm</i>					0.0135	1.88 *
<i>Other Director BD Firm</i>					0.0071	0.91
<i>New Director</i>	-0.0006	-0.25	-0.0005	-0.21	0.0001	0.03
<i>Female Director</i>	-0.0003	-0.20	-0.0003	-0.16	-0.0004	-0.24
<i>Director Age &gt; 65</i>	-0.0003	-0.20	-0.0003	-0.17	-0.0005	-0.30
<i>Tenure</i>	0.0006	4.61 ***	0.0006	4.61 ***	0.0007	4.88 ***
<i>Number of Other Directorships</i>	0.0005	0.85	0.0005	0.84	0.0005	0.92
<i>% of Outside Directors</i>	0.0011	0.07	0.0011	0.07	0.0028	0.19
<i>Board Size</i>	-0.0007	-1.22	-0.0007	-1.22	-0.0006	-0.99
<i>Total CEO Compensation</i>	0.0006	2.32 **	0.0006	2.30 **	0.0006	2.34 **
<i>Industry Adjusted ROA</i>	-0.0419	-2.42 **	-0.0419	-2.42 **	-0.0419	-2.43 **
<i>Abnormal Returns</i>	0.0041	1.05	0.0041	1.05	0.0041	1.04
<i>Non-BD Related Litigation</i>	0.0199	2.30 **	0.0199	2.31 **	0.0200	2.33 **
<i>Non-BD Related Restatement</i>	0.0005	0.10	0.0005	0.11	0.0005	0.10
<i>Non-BD Related RiskMetrics Wh. Rec.</i>	0.1845	20.58 ***	0.1842	20.54 ***	0.1857	20.73 ***
<i>% of Institutional Holdings</i>	0.0487	6.78 ***	0.0488	6.79 ***	0.0488	6.81 ***
<i>Blockholder</i>	0.0018	0.53	0.0018	0.52	0.0018	0.52
<i>ln(Assets)</i>	-0.0013	-1.08	-0.0013	-1.09	-0.0013	-1.12
N	6,988		6,974		6,988	
Adjusted R <sup>2</sup>	51.10%		51.00%		51.10%	

**Table 5** (continued)

	Model (2)		Model (3)	
	<i>Backdating period board membership</i>		<i>Current committee membership</i>	
<b>Selected Wald tests</b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>
<b>Effect of backdating period board membership</b>				
<i>On Board During BD Period</i> versus <i>Not On Board During BD Period</i>	0.0006	0.01		
<b>Effect of current committee membership</b>				
<i>CC Director BD Firm</i> versus <i>CC Director Non-BD Firm</i>			-0.0019	0.14
<i>AC Director BD Firm</i> versus <i>AC Director Non-BD Firm</i>			0.0085	1.45
<i>CC Director BD Firm</i> versus <i>AC Director BD Firm</i>			-0.0099	1.60
<i>CC Director BD Firm</i> versus <i>Other Director BD Firm</i>			-0.0035	0.15
<i>AC Director BD Firm</i> versus <i>Other Director BD Firm</i>			0.0064	0.54

Table 5 displays the results from the estimation of Eq. (1) at non-backdating firms for directors who are on boards of backdating firms (either at the time of the most recent annual meeting preceding the revelation of option backdating or during the backdating period) and for the control sample.

The dependent variable *Votes Withheld* is the number of votes withheld from a director scaled by the sum of votes cast (source: Voting Analytics). For directors at backdating firms, *Votes Withheld* is measured at the first election the director faces at a non-backdating firm subsequent to the initial revelation of involvement in option backdating. For directors at non-backdating firms, *Votes Withheld* is measured at the 2007 annual meeting. The variable of interest in Model (1), *Director BD Firm*, is an indicator variable that is equal to one for directors at backdating firms. Models (2) – (3) differentiate among directors at backdating firms based, respectively, on their backdating period board membership and current committee membership. *AC* and *CC* denote audit committee and compensation committee, respectively.

Control variables are defined as follows. *New Director* is an indicator variable that is equal to one if the director is in his/her first year on the board (source: Boardex). *Female Director* is an indicator variable that is equal to one for female directors (source: Boardex). *Director Age > 65* is an indicator variable that is equal to one if the director is older than 65 at the time of the annual meeting (source: Boardex). *Tenure* is the number of years the director has been on the board at the time of the annual meeting (source: Boardex). *Number of Other Directorships* is the number of other boards (in the Boardex universe) on which the director sits in the year of the annual meeting (source: Boardex). *% of Outside Directors* is the percentage of independent directors sitting on the board at the time of the annual meeting (source: Boardex). *Board Size* is the number of directors sitting on the board at the time of the annual meeting (source: Boardex). *Total CEO Compensation* is total CEO compensation calculated as the sum of salary, bonus, non-equity incentive plan compensation, grant-date fair value of option awards, grant-date fair value of stock awards, and other compensation for the fiscal year ending before the annual meeting (source: Boardex and hand collection from proxy statements). *Industry Adjusted ROA* is the firm's return on assets (ROA) less average ROA for firms in the same two-digit SIC code for the most recent fiscal year ending before the annual meeting. We calculate ROA as earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets (source: Compustat). *Abnormal Returns* is size-adjusted returns for the most recent fiscal year ending before the annual meeting (source: CRSP). *Non-BD Related Litigation* is an indicator variable that is equal to one if the firm is targeted by a non-backdating related class-action lawsuit filed over the period from the beginning of the fiscal year prior to the annual meeting to the annual meeting date (source: Woodruff-Sawyer & Co. Class Action Lawsuit Dataset). *Non-BD Related Restatement* is an indicator variable that is equal to one if the firm files a non-backdating related restatement over the period from the beginning of the

fiscal year prior to the annual meeting to the annual meeting date (source: Audit Analytics). *Non-BD Related RiskMetrics Wh. Rec.* is an indicator variable that is equal to one if the director received a non-backdating related withhold recommendation from RiskMetrics at the annual meeting (source: Voting Analytics and RiskMetrics reports). *% of Institutional Holdings* is the percentage of equity owned by institutions based on 13-F filings (source: Thomson Reuters). *Blockholder* is an indicator variable that is equal to one if there is at least one institution that owns at least 5% of the firm's equity based on 13-F filings (source: Thomson Reuters). *ln(Assets)* is the natural logarithm of total assets (Compustat item *at*) in millions for the fiscal year ending before the annual meeting (source: Compustat).

\*\*\*, \*\*, and \* denote significance at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test. Reported t-statistics are based on standard errors estimated using firm- and director-level clustering.

**Table 6**

Effect of involvement in backdating on directors' other directorships – change in other seats analysis

Variable	Model (1)		Model (2)		Model (3)	
	<i>Current board membership</i>		<i>Backdating period board membership</i>		<i>Current committee membership</i>	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
<i>Intercept</i>	-0.0902	-1.15	-0.0909	-1.16	-0.1094	-1.42
<i>Director BD Firm</i>	0.0030	0.16				
<i>Director BD Firm - On Board During BD Period</i>			-0.0103	-0.21		
<i>Director BD Firm - Not on Board During BD Period</i>			0.0048	0.23		
<i>CC Director Non-BD Firm</i>					0.0182	1.91 *
<i>AC Director Non-BD Firm</i>					0.0378	3.37 ***
<i>CC Director BD Firm</i>					0.0194	0.66
<i>AC Director BD Firm</i>					0.0407	1.14
<i>Other Director BD Firm</i>					0.0077	0.20
<i>Female Director</i>	0.0150	0.90	0.0149	0.89	0.0145	0.87
<i>Director Age &gt; 65</i>	-0.0906	-8.05 ***	-0.0907	-8.03 ***	-0.0911	-8.07 ***
<i>Tenure</i>	-0.0031	-6.08 ***	-0.0031	-6.14 ***	-0.0029	-5.65 ***
<i>Number of Other Directorships</i>	-0.1515	-12.70 ***	-0.1517	-12.65 ***	-0.1518	-12.69 ***
<i>Lose Seat at Own Firm</i>	0.0203	1.55	0.0204	1.55	0.0230	1.75 *
<i>Industry Adjusted ROA</i>	-0.0390	-1.24	-0.0337	-1.08	-0.0404	-1.27
<i>Abnormal Returns</i>	0.0005	0.04	-0.0005	-0.04	0.0008	0.07
<i>Non-BD Related Litigation</i>	-0.0142	-0.55	-0.0140	-0.54	-0.0145	-0.56
<i>Non-BD Related Restatement</i>	0.0182	1.25	0.0166	1.13	0.0182	1.26
<i>% of Institutional Holdings</i>	0.0414	1.82 *	0.0415	1.82 *	0.0399	1.76 *
<i>Blockholder</i>	0.0083	0.78	0.0094	0.87	0.0078	0.74
<i>ln(Assets)</i>	0.0028	0.84	0.0028	0.83	0.0030	0.87
N	16,478		16,372		16,478	
Adjusted R <sup>2</sup>	10.40%		10.50%		10.50%	

**Table 6** (continued)

	Model (2)		Model (3)	
	<i>Backdating period board membership</i>		<i>Current committee membership</i>	
<b>Selected Wald tests</b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>	<b>Coefficient</b>	<b><math>\chi^2</math></b>
<b>Effect of backdating period board membership</b>				
<i>On Board During BD Period</i> versus <i>Not On Board During BD Period</i>	-0.0151	0.08		
<b>Effect of current committee membership</b>				
<i>CC Director BD Firm</i> versus <i>CC Director Non-BD Firm</i>			0.0012	0.00
<i>AC Director BD Firm</i> versus <i>AC Director Non-BD Firm</i>			0.0029	0.01
<i>CC Director BD Firm</i> versus <i>AC Director BD Firm</i>			-0.0184	0.23
<i>CC Director BD Firm</i> versus <i>Other Director BD Firm</i>			0.0117	0.06
<i>AC Director BD Firm</i> versus <i>Other Director BD Firm</i>			0.0330	0.36

Table 6 displays the results from the estimation of Eq. (3a). The dependent variable *Change in Other Seats* is the change in other directorships measured over the same window as director turnover in Table 4. The variable of interest, *Director BD Firm*, is an indicator variable that is equal to one for directors at backdating firms. In Models (2) – (3), we differentiate among directors at backdating firms based, respectively, on their backdating period board membership and current committee membership. *AC* and *CC* denote audit committee and compensation committee, respectively.

Control variables are defined as follows. *Female Director* is an indicator variable that is equal to one for female directors (source: Boardex). *Director Age > 65* is an indicator variable that is equal to one if the director is older than 65 (source: Boardex). *Tenure* is the number of years the director has been on the board (source: Boardex). *Number of Other Directorships* is the number of other boards (in the Boardex universe) on which the director sits (source: Boardex). We measure all director characteristics at the most recent annual meeting preceding the revelation of backdating. *Lose Seat at Own Firm* is an indicator variable that is equal to one if the director loses his/her seat at a given firm (i.e., when *Director Turnover* is equal to one) at the time of the annual meeting at which we measure change in other seats, “the annual meeting of interest” (source: Boardex). *Industry Adjusted ROA* is firm return on assets (ROA) less average ROA for firms in the same two-digit SIC code for the most recent fiscal year ending before the annual meeting of interest. We calculate ROA as earnings before extraordinary items (Compustat data item *ib*) scaled by average total assets (source: Compustat). *Abnormal Returns* is size-adjusted returns for the most recent fiscal year ending before the annual meeting of interest (source: CRSP). *Non-BD Related Litigation* is an indicator variable that is equal to one if the firm is targeted by a non-backdating related class-action lawsuit filed over the period from the beginning of the fiscal year prior to the annual meeting of interest to the annual meeting date (source: Woodruff-Sawyer & Co. Class Action Lawsuit Dataset). *Non-BD Related Restatement* is an indicator variable that is equal to one if the firm files a non-backdating related restatement over the period from the beginning of the fiscal year prior to the annual meeting of interest to the annual meeting date (source: Audit Analytics). *% of Institutional Holdings* is the percentage of equity owned by institutions based on 13-F filings (source: Thomson Reuters). *Blockholder* is an indicator variable that is equal to one if there is at least one institution that owns at least 5% of the firm’s equity based on 13-F filings (source: Thomson Reuters). *ln(Assets)* is the natural logarithm of total assets (Compustat item *at*) in millions for the fiscal year ending before the annual meeting of interest (source: Compustat).

\*\*\*, \*\*, and \* denote significance at the 0.01, 0.05, and 0.10 level, respectively, based on a two-tailed test. Reported t-statistics are based on standard errors estimated using firm- and director-level clustering.