Managing reputation: Evidence from biographies of corporate directors

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Abstract

We examine how corporate directors manage reputation through disclosure choices in biographies in proxy statements filed with the SEC. Directors are more likely to withhold information about directorships at firms that experienced adverse events. Withholding such information is associated with more favorable stock price reactions at appointment and loss of fewer subsequent directorships. Non-disclosure of directorships is significantly reduced following changes to SEC rules, with the greatest change being for adverse-event directorships. These findings suggest that reputation concerns of corporate directors lead to strategic disclosure choices that have real consequences in both capital and labor markets.

Keywords: Director monitoring; reputational concerns; strategic disclosure

1. Introduction

An extensive literature provides support for the hypothesis of Fama and Jensen (1983) that reputation is an important mechanism for motivating corporate directors. Directors have incentives to build their reputations as expert advisors, since their effectiveness is not easily observable to market participants. Much of prior literature has focused on showing how performance affects reputation (Coles and Hoi, 2003; Yermack, 2004). In this paper, we provide the first evidence on another channel through which directors protect their reputations: selective disclosure in biographies. Specifically, we examine how directors appear to make strategic disclosure choices about their past and current experience in biographies.[1] Also, we provide new evidence on how such disclosure choices affect the perceptions of market participants.

Director biographies, which are a required element of corporate filings in the United States, are intended to provide investors with information needed to assess the experience of directors and evaluate whether each director or nominee is adequately qualified to monitor and advise the firm (Securities and Exchange Commission, 2009). However, key elements of director biographies were largely unregulated until 2010, giving directors and firms substantial discretion regarding the information disclosed. In this study, we provide evidence suggesting that reputation concerns of corporate directors lead to strategic disclosure choices. As choices to disclose or withhold information are presumably made to affect the inferences of market participants, we expect such disclosure choices to have capital and labor market consequences.

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[1] While an extensive literature has examined how managers strategically disclose information about the firm (Healy and Palepu 2001) little attempt has been made to examine disclosure choices regarding information about individuals per se.

We use biographies of corporate directors in firm proxy statements to examine how reputation concerns affect disclosure choices. A biography in a proxy statement summarizes a director's past experience in a succinct form.[2] Given the extensive business experience of the typical corporate director, there are trade-offs inherent in selecting what is disclosed in a brief biography. In making such trade-offs, a director are likely to highlight aspects of experience (e.g., financial expertise) that are considered to be most relevant to investors. However, it seems possible that individuals omit information that can send negative signals about their skills.[3]

Our sample includes 159,657 biographies of 12,895 directors collected from DEF 14A and DEF 14C filings lodged with the United States Securities and Exchange Commission (SEC). For each biography, we determine whether or not the individual disclosed a directorship she currently holds or held in the past.[4]

We document evidence of significant strategic disclosure in director biographies. In particular, we find that individuals are less likely to disclose past and current directorships at firms that experienced adverse events such as accounting restatements, securities litigation, or bankruptcy. For example, prior to increased regulation by the SEC in 2010, the probability of non-

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[2] The median length of a director biography in our data set is 752 characters. Biographies include information that will inform investors of the skills and qualification of the individuals, such as educational background, past managerial experience, and board positions. An example biography is provided in Appendix 1.

[3] For ease of exposition, here (and throughout the paper) we assume that *individuals* (directors as opposed to firms) are making such decisions. Of course, what content to include in a bio is most likely a joint decision made by both the director and the disclosing firm. Discussions with practitioners suggest that directors are the primary source of the initial input, while firms are also involved in the drafting process. To empirically test for who is making the strategic disclosure decision, we decompose the variance in our strategic disclosure variable into variation explained by director effects versus firm effects. Using a Markov-Chain Monte Carlo Generalized Linear Mixed Model (Hadfield, 2010), the variances explained by director, firms, and year random effects to be 5.638, 0.464, and 0.971, respectively (untabulated). Thus, more variation in our dependent variable is explained by directors than by firms.

[4] A comprehensive list of directorships held by individuals is obtained from Equilar, which provides data on directors for essentially all public firms in the US.

disclosure of directorships at firms that filed for bankruptcy during the director's tenure is 35% compared to 21% for those held at firm with no such adverse events.

In 2010, the SEC introduced new rules providing objective guidelines for the disclosure of director biographies.[5] Prior to this amendment, which affected SEC filings made after March 1, 2010, directors and nominees were only required to disclose directorships held at the time of filing. Disclosure of past directorships was voluntary and we find that 59% of past directorships were not disclosed prior to the SEC's mandate. As the new rule expanded disclosure of directorships to include all past directorships held at any time in the previous five years, disclosure of those directorships moved from a voluntary regime to a mandatory one. We find that the non-disclosure rates of past directorships dropped to approximately 27% following the new SEC rules. More importantly, the decline in the non-disclosure of directorships was greater for directorships at firms that experienced an adverse event than for those at firms with no adverse events, suggesting that the new regulations were effective in curbing strategic disclosure.

Incentives for individuals to engage in such strategic disclosure choices can come from several sources. Having served on boards of problematic companies can affect investor's assessment of one's effectiveness as a board member (Srinivasan, 2005; Fich and Shivdasani, 2007), suggesting that disclosure of such information may have long-term consequences for a director's career, e.g., limiting employment opportunities, causing loss of directorships, and creating broader reputational costs (Grundfest, 1993; Desai et al., 2006; Jiang, Wan and Zhao, 2015; Masulis and Mobbs, 2015). Nonetheless, in principle, it is possible for investors to identify

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[5] See https://www.sec.gov/rules/final/2009/33-9089.pdf.

all directorships held by individual directors from other sources.[6] Thus, in the absence of existence of frictions (e.g., search costs) non-disclosure of directorships may have no material impact on capital and labor markets.

Thus, we examine whether non-disclosure is associated with real consequences in the capital and labor markets. We first examine capital market consequences. The average stock market reaction to director appointments is 1.1 percent higher when directors do not disclose directorships at adverse-event companies than when they do disclose such directorships. This is consistent with investors viewing appointment of a director associated with an adverse-event firm as negatively affecting firm value and with the existence of frictions such as search costs preventing investors from obtaining information from elsewhere.

We also find labor market consequences for affected directors. Directors withhold information about adverse-event directorships lose fewer current directorships in the two years after the filing relative to the directors who disclose. However, we find no evidence that non-disclosure leads to different shareholder voting outcomes. Neither shareholder votes nor voting recommendations of the leading proxy advisors are associated with disclosure choices regarding adverse directorships.

This paper makes several contributions to the literature. First, we contribute to research on reputation management by corporate directors. Several studies have shown that directors' reputations are tarnished by a variety of events such as supporting managerial actions that are against shareholder interests (Harford, 2003) or serving on boards of firms subject to financial fraud lawsuits (Fich and Shivdasani, 2007), accounting restatements (Srinivasan, 2005), or

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[6] For example, investors can comb through the SEC filings of all public firms in the US compile a list of directors.

financial distress (Gilson, 1990). Given the evidence on the costs to directors of being associated with troubled firms, it seems natural to ask whether these directors engage in reputation management by withholding negative information. Our setting provides evidence of such behavior using biographies of corporate directors.

Second, we contribute to the literature on corporate governance by examining the role of disclosure related to corporate directors. Our evidence is consistent with the existence of frictions such as search costs preventing investors from obtaining information from elsewhere. The existence of such frictions provides a rationale for the decision by the SEC to enhance disclosure requirements for filings made on or after March 1, 2010. We also provide evidence on the effect of director background on market perceptions of firm value (DeFond et al., 2005). Specifically, we provide evidence consistent with investors viewing appointment of a director associated with an adverse-event firm (e.g., one subject to accounting restatements, bankruptcy, or shareholder litigation) as negatively affecting firm value.

Third, we contribute to the extensive literature on corporate disclosure by providing evidence in a setting where we can observe withholding of information directly. In most research settings, a researcher is, like market participants, unable to discern whether information is being withheld. One can only infer withholding of information based on the absence of disclosure when firms have greater incentives to not disclose (Aboody and Kasnik, 2000; Nagar et al., 2003). Relatively few papers have examined settings where greater insight into the underlying disclosure choices exist. For example, Berger and Hann (2007) use the retroactive application of new segment reporting rules caused by the move to SFAS No. 131 to draw stronger inferences about disclosure incentives than can be drawn in more conventional settings. Our setting facilitates stronger

inferences, as we can observe the consequences of non-disclosure by comparing outcomes when information is disclosed with cases when it is withheld.

Finally, we contribute to the recent literature that rely on biographies to infer the backgrounds and networks of individuals (Benmelech and Frydman 2015; Bird et al. 2015; deHaan et al. 2015). Much of this disclosure is voluntary and often filtered by firms and individuals. We show that individuals tend to omit unfavorable information from biographies filed with the SEC. To the extent that such reporting bias extends to biographies in other settings, our findings suggest that researchers may need to be aware of bias in reported biographies in that affiliation with failed companies or other unfavorable information may often be omitted.

2. Hypothesis development and institutional setting

2.1 Reputation of corporate directors

An extensive literature explores the hypothesis of Fama and Jensen (1983, p. 315) "that outside directors have incentives to develop reputations as experts in decision control" and that "the value of their human capital depends primarily on their performance as internal decision managers in other organizations." Most studies have focused on examining how good performance and decision-making of directors help build their reputations. Studies have shown that favorable career outcomes follow "good" performance, such as rescission of takeover defenses (Coles and Hoi 2003), high takeover premiums (Harford 2003), and general firm performance (Yermack 2004). Similarly, other studies show how poor performance such as shareholder lawsuits (Fich and Shivdasani 2007) and proxy contest nominations (Fos and Tsoutsoura 2014) lead to fewer opportunities in the director labor market.

More recently, papers have examined actions that directors take to shape their reputations. For example, Jiang et al. (2015) examine the reputational effects of director dissension in board decisions and find evidence that dissension is a credible signal of alignment with shareholder interests. There are also more opportunistic ways in which directors can manage their reputations. For example, Fahlenbrach et al. (2014) argue that directors, in order to protect their reputations, resign from boards when they anticipate that the firm will perform poorly in the future. Our paper contributes to this literature by providing the first evidence on another channel through which directors shape their reputation, namely director biographies, which an important channel for investors to access information the skills and qualifications of directors (SEC 2009).

While our paper is the first to examine disclosure choices in director biographies, our paper relates to earlier studies in labor economics that show that information in personal resumes affects labor market outcomes. For example, studies find that resumes with traditional names are substantially more likely to lead to job interviews than distinctively minority-sounding names (Jowell and Prescott-Clarke, 1970; Hubbick and Carter, 1980; Brown and Gay, 1985; Bertrand and Mullainathan, 2003; Kang et al., 2016). Other studies find that job resumes elicit different response rates based on the applicant's ethnic group (Oreopoulos, 2011), educational backgrounds (Deming et al., 2016), and gender (Arceo-Gomez, 2014). These studies suggest that disclosures in resumes, which are relatively succinct biographies of prospective employees, have real labor market consequences.

In the context of director biographies, we focus on the implications of non-disclosure of current or past directorships. We hypothesize that selective disclosure of past experience will lead to real economic outcomes. Having served on boards of firms which suffered adverse events may

convey negative information about the ability of the individual to advise and monitor the company. Hence, disclosure of past experience at problematic companies may lead to lower chances of obtaining future directorships. While it is relatively straightforward for an investor in principle to identify all the directorships held by an individual, search costs may prevent market participants from obtaining information about undisclosed directorships from other sources. However, to the extent that market forces such as professional search firms or shareholder proxy advisors obtain and inform investors of such information, it is possible that selective disclosure has no real market consequences.

2.2 Strategic disclosure

An extensive literature spanning economics, finance, and accounting research has examined discretionary disclosure from a theoretical perspective. Much of this literature has focused on truthful, voluntary disclosures of information related to firm value. A key result in this literature is that under a fairly general set of assumptions, non-disclosure will lead to adverse inferences, resulting in an "unraveling" in which all types disclose (Grossman and Hart, 1980; Milgrom, 1981). Subsequent work identifies circumstances in which this unraveling will not occur, such as when there are proprietary costs associated with disclosure (Verrecchia 1983) or uncertainty about whether the disclosing manager possesses the information to disclose (Dye 1985; Jung and Kwon 1987). In the standard paradigm, firms choose whether to disclose and, upon observing disclosure (or the failure to disclose), market participants update their beliefs accordingly.

A number of features distinguish our setting from other settings examined in prior research. First, disclosure in our setting is arguably close to costless. A director presumably knows what

boards she has served on and can provide that information to the disclosing firm without significant effort. Thus it is not clear that notions of cost of the act of disclosure itself is a significant motivating factor in our setting.[7]

Second, it is possible (with seemingly modest cost) to determine "truth". By using comprehensive data on public company directorships from Equilar, we are able to identify cases where directors are withholding information. In general, such data do not exist for researchers studying disclosures such as corporate earnings forecasts. As market participants collectively have access to the same or similar information that we have, non-disclosure of directorships is presumably based on the existence of frictions that prevent market participants from obtaining information about undisclosed directorships from other sources.[8] To the extent that search costs prevent investors from obtaining full information from other sources, investors will rationally view the omission of a firm from director's biography as implying that either that this director does not (or did not) serve on the board of that firm or, that the director does (or did) serve on that board, but chose not to disclose this information.[9]

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[7] It is difficult to see significant "proprietary costs" from disclosure (i.e., costs other than those related to adverse capital market inferences) in our setting.

[8] Whether such frictions exist is not essential, so long as the disclosing party believes such frictions exist. The existence of such frictions is arguably evidenced by the fact that the SEC now requires firms to disclose many of the directorships that directors were not disclosing.

[9] Other disclosures that have been the subject of recent regulatory attention plausibly support similar inferences when non-disclosure occurs. For example, in the United States, Accounting Standard Codification (ASC) 850 regulates disclosure of related party transactions. If such disclosures were voluntary, non-disclosure could be interpreted as either the withholding of information about related party transactions (presumably bad news) or the absence of such transactions (presumably good news). Similarly, in 2006, the SEC adopted rules requiring more complete disclosure of executive retirement benefits. Prior to 2006, such earnings "were required to be disclosed only to the extent of any portion that was 'above-market or preferential' … [permitting] companies to avoid disclosure of substantial compensation." In this case, non-disclosure could be interpreted as the existence of compensation arrangements that firms did not wish to disclose, or the absence of such arrangements.

Thus this setting is analogous to that examined in Dye (1985) and Jung and Kwon (1988) and the inability of investors to distinguish between these two possible explanations for non-disclosure could support a partial disclosure equilibrium like that in those papers.[10] In such equilibria, directors with worse news would be less inclined to disclose. We posit that a plausible case of bad news in our setting is directorships held on other boards where adverse events were experienced during a given director's tenure.

There are several candidate adverse events about which directors might like to withhold information. Palmrose et al. (2004) show that restatements are associated with an average abnormal return of −9.1 percent over a two-day window. The authors argue that restatements create uncertainty about the reliability and credibility of management representation. Chakravarthy et al. (2014) argue that the drop in firm value following a restatement reflects an impairment to a firm's reputational capital and lost of trust from its stakeholders. If having served on a board of a restating firm affects investors' assessments of one's credibility and competence, directors will have incentives not to disclose directorships at firms that reported restatements during their tenure.

Studies also find that directors suffer reputational damage following class action lawsuits. Fich and Shivdasani (2007) find that following a lawsuit in firms where they are directors, directors experience a subsequent decline in other board seats. Similarly, Brochet and Srinivasan (2014) document a higher likelihood of removal from current board seats following a lawsuit. Thus, if a firm experienced a lawsuit during a director's tenure, this may increase the likelihood of non-disclosure of such directorships in the director's biography.

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[10] Note that the sheer number of firms for which a typical director has never been associated with implies that the director never having served on the board of any given other firm is overwhelmingly the most likely explanation for any given non-disclosure.

Bankruptcy is another natural candidate. Agarwal and Chen (2011) suggest that directors who stay with a firm that goes bankrupt are more likely to be named as defendants in subsequent class action lawsuits compared to those who have already left. Gilson (1990) finds that directors who have served on boards of companies that experience financial distress have fewer subsequent board seats. Such career consequences may be severe enough that individuals decide to resign from boards in anticipation of adverse events (Fahlenbrach et al., 2014). Given the evidence of significant reputational and career consequences associated with having served on boards of bankrupt companies, we expect non-disclosure to be greater for firms that filed for bankruptcy.

2.3 Institutional setting

Firms are required to disclose backgrounds of their directors in proxy filings, otherwise known as Form DEF 14A. Form DEF 14A is filed with the SEC before firms send out proxy statements to shareholders and contains information related to topics such as the company's voting procedures, executive compensation, audit committee, and qualifications of director nominees.

The SEC set forth disclosure requirements relating to the background of key executives as early as 1973 following an investigation of the hot issues market in 1971. However, these requirements were descriptive and limited only to company executives.[11] Subsequently, the SEC added more substantive disclosure requirements related to the experience of both executives and directors.[12] More recently, in 2003, in connection with Section 407 of the Sarbanes-Oxley Act, the

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[11] The requirements were adopted from the provisions in Schedule A of the Securities Act calling for a brief description of their business experience of the principal executive officers for the last five years. (SEC 2013, Report on Review of Disclosure Requirements in Regulation S-K, https://www.sec.gov/news/studies/2013/reg-sk-disclosure-requirements-review.pdf).

[12] For example, in 1982, a requirement was added to disclose whether the executives and directors had been employed at an entity that is a parent, subsidiary or affiliate of the registrant. Also, in 1984, the SEC added a requirement to disclose any involvement in legal proceedings by the executives and directors.

SEC added disclosure requirements calling for firms to provide information about financial experts serving on their audit committees. However, other than information on the financial expertise, there was limited disclosure required about the qualification of the individual. Hence, individuals and firms had substantial discretion in choosing what information was provided to investors.

On December 16, 2009, the SEC adopted amendments (effective from March 1, 2010) to Regulation S-K Item 401, which governs rules related to disclosures of director backgrounds. The amendments were part of a larger package of new disclosure rules aimed at improving the overall quality of information in proxy statements. Under the new rules, a public company is required to provide investors with information on each nominee to its board of directors, including particular qualifications, attributes, skills or experience that led the board to conclude that the nominee should serve as a director. While the objective of the new rules was to help investors to better determine whether a director nominee was an appropriate choice for a particular company, critics raised concerns about its usefulness to investors, arguing that the information required to be disclosed was inherently subjective.

Nonetheless, there were specific areas where the new disclosure rules provided clear objective guidelines. When it comes to biographical information, directors are required to disclose all directorships of public companies[13] and registered investment companies that the director or nominee currently holds or held at any time in the previous five years.[14] This was in contrast to

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[13] Defined as any company with a class of securities registered pursuant to section 12 of the Securities Exchange Act of 1934 or required to file under Section 15(d) of the 1934 act. Foreign private issuers are exempt from Section 12(g) registration, so directorships of such issuers are not required to be disclosed.

[14] The amendment also expanded disclosure obligations regarding legal proceedings against nominees; the length of time of disclosure was increased from five years to ten years and the kinds of legal proceeding requiring disclosure was expanded. The following additional legal proceedings were added as requiring disclosure: Any judicial or administrative proceedings resulting from involvement in mail or wire fraud or fraud in connection with any business entity; any judicial or administrative proceedings based on violations of federal or state securities, commodities,

the previous rules which required directors to disclose current directorships only. The new rules applied to all director nominees and incumbent directors, including those not up for reelection in a particular year. The new requirement reflected the SEC's view of the importance of having information for the entire board to evaluate the quality of each individual.

The new disclosure rules were encountered with mixed responses. While investors welcomed the new disclosure rules, many companies, law firms, and bar groups opposed the new rules. Some opponents raised skepticism as to whether requiring such detailed disclosure on a person-by-person would elicit meaningful information. Others claimed that additional disclosure of past directorships would become voluminous and obfuscate more relevant credentials of individuals (SEC, 2009). Despite these criticism, we expect significant reduction in opportunistic disclosure behavior following the new regulation.

3. Data

We use Equilar as our source of canonical data on directorships at public US firms.[15] Equilar provides us with data on directors for essentially all firms filing on Form 10-K and providing proxy disclosures from 2002 to 2013. Equilar also provides an individual identifier that allows us to map directors across firms and over time. Having identified directors, we then identified proxy filings associated with directors. With the assistance of a team of research assistants, we "tagged" director biographies by highlighting the relevant text of proxy filings for each director in place (see Appendix 1 for an example of this tagging).

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banking or insurance laws and regulations, or any settlement to such actions; and any disciplinary sanctions or orders imposed by a stock, commodities or derivatives exchange or other self-regulatory organization.

[15] Equilar is an executive compensation and corporate governance data firm.

Each observation in our sample represents a director who serves on the board of the disclosing firm and who currently sits, or has sat, on another board (the "other board"). Because we collect biographical data from proxy filings which generally relate to a given fiscal year, an observation in our sample is a director-disclosing firm-fiscal year-other board.

Drawing on an example provided in Appendix 1, one observation in our sample relates to Jan Murley, who was a director on the board of 1-800-FLOWERS, Inc. during the fiscal year ending on June 30, 2008. As such, Murley's biography was disclosed on Form DEF 14A filed by 1-800-FLOWERS, Inc. on October 24, 2008. As Murley sat on three other boards at the time of, or prior to, the disclosure on October 24, 2008, we have three observations in our sample related to the combination {director: "Jan Murley", disclosing firm: "1-800-FLOWERS, Inc.", fiscal year: June 30, 2008}, including {director: "Jan Murley", disclosing firm: "1-800-FLOWERS, Inc.", fiscal year: June 30, 2008, other board: "Qwest Communications"} and {director: "Jan Murley", disclosing firm: "1-800-FLOWERS, Inc.", fiscal year: June 30, 2008, other board: "The Clorox Company"}.

As detailed in Table 1, we have 262,420 director-disclosing firm-fiscal year-other board observations. This represents 5,167 distinct disclosing firms, 30,171 distinct director-disclosing firm combinations, and 159,657 distinct disclosing firm-director-fiscal years. That we have 262,420 observations implies that, the number of other boards that a director has is 1.6 (= 262,420/159,637), on average.

For each of the 262,420 observations, we code an indicator variable *Non-Disclosure* equal to one if, for a given observation, the other board is not disclosed in the biography for the director provided in the filing by the disclosing firm for the given fiscal year. Referring again to the

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example discussed in Appendix 1, for the observation {director: "Jan Murley", disclosing firm: "1-800-FLOWERS, Inc.", fiscal year: June 30, 2008, other board: "Qwest Communications"}, we would code *Non-Disclosure* as 1, because Qwest Communication is not disclosed as an other directorship for Jan Murley in 1-800-FLOWERS, Inc.'s filing.[16] For the observation {director: "Jan Murley", disclosing firm: "1-800-FLOWERS, Inc.", fiscal year: June 30, 2008, other board: "The Clorox Company"}, we would code *Non-Disclosure* as 0, because The Clorox Company is disclosed as an other directorship for Jan Murley in the proxy filing.

There are several challenges we encountered in our data collection process. First, there are cases where an other directorship is disclosed in the proxy filing, but is separate from the primary biographical information that we tagged. With a view to addressing these cases, we double-checked filings that had an unusually high level of apparent non-disclosure for all directors in the filing. In most cases, we were able to identify and tag separate information on other directorships.

Second, firms can change names. For example, Kraft Foods became Mondelez International in October 2012.[17] As this firm is "MONDELEZ INTERNATIONAL, INC." in Equilar, we will have false positive values of *Non-Disclosure* for all biographies filed before the name change. To address such issues, we use all names used in SEC filings for a given firm (i.e., CIK identifier) and in addition, as discussed in Appendix 1, we use screens to identify problematic firm names and, after confirming alternative names, we tag these names as they appear in

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[16] We note that in subsequent years (starting 2009), directorship held at Qwest communication was disclosed in Jan Murley's bios. The omission was only for 2008, which happens to be the first year she was elected to the board of Qwest communication. It is possible that the non-disclosure in 2008 was due to a lag in the reporting process for newly elected directorships. Also, individuals may not disclose directorships in terminal years because he/she has already been scheduled to leave the board. For the first and last year of directorships, what drives non-disclosure may be reporting technicalities rather than strategic motives. To address such concern, we repeat our analyses after excluding both the first and the last year the individuals joined the board from the analysis (untabulated). We find qualitatively similar results.

[17] See http://www.sec.gov/cgi-bin/browse-edgar?action=getcompany&CIK=0001103982.

biographies. Once a firm is tagged in one director's biography, such names then become alternative names for matching in the biographies of other directors who have served on the same board.

Third, biographies may refer to firms by slightly different names. The firm names used in biographies are often more colloquial and, therefore, can differ from the official name of the company. For example, Jan Murley from the example above, used "The Clorox Company" when disclosing her directorship at Clorox Co. In contrast, Richard Carmona's biography as disclosed in a filing for Taser International simply says "Dr. Carmona is a director of Clorox." We accommodate such minor variations in the company names as used across biographies, for example, by allowing "Company" to be replaced by "Co" or omitted altogether.[18]

Once we implemented approaches to address these issues, we assessed the accuracy of our classification by taking a random sample where *Non-Disclosure* equals one and manually examining proxy filings to confirm that the other directorship is actually not disclosed and that the data from Equilar correctly code the directors as being on the other board at, or prior to, the relevant filing by the disclosing (or non-disclosing) firm. Our final random sample comprises 157 observations of which 136 (86.6%) are correctly classified as non-disclosures.[19] Of the remaining 21 observations, 10 are cases where issues exist in the tagged bio (i.e., the first class of issues identified above) and 8 are cases where the name disclosed differs from any of the names we have in our database for that firm (including variants based on regular expressions), and 3 are cases where it appears the director was not on the other board at the time of the disclosure (e.g., due to

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[18] Other similar issues we address through use of regular expression matching include: use of curly quotes or apostrophes; omission of spaces or use of multiple spaces; replacement of hyphens with spaces or vice versa; abbreviation of "holdings," "corporation," "incorporated," and omission or inclusion of state of incorporation.

[19] We actually initially sampled 200 observations, but ongoing data collection by RAs, which was uninformed by the random sampling we used, resulted in some of these observations being (correctly) reclassified as *Non-Disclosure* equal to zero.

minor issues in the start dates for the other directorship from Equilar and BoardEx, which are sometimes approximate dates). We also examined a number of cases where *Non-Disclosure* equals zero, but found no cases of false negatives.[20] Based on this analysis, we estimate an error rate of 4.8% for our sample.[21] Given the scale and difficulty of the task, we view this misclassification rate as acceptable and see no reason why these errors would produce spurious results.

4. Research design and empirical tests

4.1. Descriptive statistics

Table 1 presents the construction of our sample. From the 262,420 observations discussed earlier, we require financial data from Compustat for both the disclosing firm and the other firm where a directorship was held. We also exclude individuals with missing demographic information (e.g., age and gender). These requirements yield a final sample of 219,155 director-disclosing firm-fiscal year-other board observations, of which 95,075 represent past directorships and 124,080 represent current directorships.

We present the frequency of non-disclosures of directorships. Table 2 Panel A reports the number of directorships that are disclosed and undisclosed for each type of adverse event. For example, other directorships held at firms that filed for bankruptcy during the director's tenure are undisclosed 1,766 times in director bios and disclosed 5,649 times. The frequency of non-

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[20] This is to be expected given the nature of the task: it seems unlikely some resembling the name of a firm would be mentioned in a biography except when disclosing some relationship, such as a directorship, with that other firm.

[21] Out of the 121,072 observations in our sample, we have 44,598 non-disclosure cases. The overall error rate is computed by weighting the error rate of the sample when *Non-disclosure* equals one (i.e., 13.4%) and when *Non-disclosure* equals zero (0%).

disclosure for directorships held at firms which filed for bankruptcy is 28.37% (=1,766 ÷ (1,766 + 5,649)). While the number of disclosed cases is greater than the undisclosed cases, the likelihood of non-disclosure is higher when we compare the likelihood of non-disclosure to directorships held at firms with no such adverse events, i.e., 19.97% (=34,790 ÷ (34,790 + 139,406)). The difference in 28.37% and 19.97% suggests that directorships held at bankrupt firms are more likely to be undisclosed compared to directorships held at firms that experienced no adverse events.

Panel B reports the number of undisclosed directorships before and after the new SEC regulation. The figures, for example, show that prior to the SEC's amendments to disclosure regulation, 35.30% (=802 ÷ (802 + 1,470)) of directorships held at firms that filed for bankruptcy during the director's tenure are undisclosed. In contrast, the frequency of non-disclosure for directorships held at firms with no adverse event is 21.00% (=20,227 ÷ (20,227 + 76,090)). After the SEC's amendments to disclosure regulation, we find a significant drop in the likelihood of non-disclosure. The likelihood of non-disclosure of directorships held at bankrupt firms dropped from 35.30% to 22.69%. We interpret this as the new regulation significantly curbing opportunistic reporting in director biographies.

4.2 Determinants of non-disclosure

We examine what factors determine non-disclosure of directorships. Our main interest is in testing whether directorships held at firms that experienced adverse events are less likely to be disclosed. To examine how various adverse events potentially affect the likelihood of a directorship disclosure, we estimate the following logistic regression:

Pr(*Non-Disclosure$_{ijk}$*) =
$$\alpha_0 + \beta_1 \times \textit{Adverse Event Indicator}_{ik} + \beta_{2\text{-}8} \times \textit{Reporting Firm Controls}_i \qquad (1)$$

$$+ \quad \beta_{9\text{-}11} \times \textit{Other Firm Controls}_k + \beta_{12\text{-}13} \times \textit{Pair-Wise Control}_{jk}$$
$$+ \quad \beta_{14\text{-}17} \times \textit{Director Controls}_i + \textit{IndustryFE}_j + \varepsilon_{ijk}$$

The unit of observation is a director i of a reporting firm j during fiscal year t with a past or present directorship of firm k.[22] The outcome variable, $\textit{Non-Disclosure}_{ijk}$, is defined as 1 if the firm where director i holds, or has held, a directorship at firm k (the "other firm" hereafter) that is not disclosed in the biography of director i at the reporting firm j, and 0 otherwise.

The main independent variable of interest, $\textit{Adverse Event Indicator}$, is an indicator variable equal to 1 if the firm where the other directorship is held experienced an adverse event during the director's tenure. We examine three kinds of adverse events: SEC-investigated restatements[23], securities litigation proceedings, and bankruptcies. More precisely, in the case of the SEC-investigated restatement, the $\textit{Adverse Event Indicator}$ takes a value of 1 if the other firm disclosed a restatement which was followed or accompanied by an SEC investigation, and the director was on the board of the company at least part of the period to which the restatement pertains. The method for defining the adverse event in the case of a security litigation is analogous; the indicator variable is equal to 1 if the director was on the board of the other firm at least part of the period to which the litigation pertains, 0 otherwise. The definition in the case of a bankruptcy differs slightly as there is no clear start or end date during which director might be considered accountable for actions contributing to the financial condition that eventually leads to bankruptcy filing. As such, we define the adverse event as 1 if the director was on the board of the other firm at the time it filed for bankruptcy protection.

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[22] For brevity, we omit the time t subscript from our displayed regression equations.

[23] Restatements can result from earnings management activities as well as from unintentional errors due to complexity in the economic transactions (Hennes, 2008; Srinivasan et al., 2015). We limit our restatement sample to that are accompanied by an SEC investigation to better capture those that are related to intentional accounting irregularities (Dechow et al., 1995), and therefore more likely to damage the reputation of directors.

Given the novelty of the setting, prior research offers little guidance regarding factors that may affect the disclosure of directorships. We include various characteristics of the reporting firm, the other firm, and director in our determinants model. For the reporting firm, we include book to market (*Book to Market$_j$*), leverage (*Leverage$_j$*), profitability (*ROA$_j$*), whether the reporting firm is audited by a big four auditor (*Big Four$_j$*), analyst coverage (*#Analyst$_j$*) and institutional ownership (*Institutional Ownership$_j$*), as potential factors affecting the likelihood of a directorship disclosure. We also include characteristics of the other firm (i.e., the firm at which the other directorship is held) that may affect the likelihood of such directorship being subsequently disclosed: book to market (*Book to Market$_k$*) and leverage (*Leverage$_k$*).

We also include several pairwise measures which capture the specific relationship between the other firm and the reporting firm. Disclosure may be more likely when both firms operate in the same industry. We include an indicator variable which captures whether both, the reporting and the other firm, are in the same industry (*Same Industry*), where industries are defined at the single-digit SIC level. Similarly, geographical proximity of each firm pair may affect whether the directorship is disclosed. To allow for this possibility, we include an indicator variable (*Same Location*) equal to 1 when both firms are headquartered in the same state. We also include the relative size of the reporting firm to the other firm (*Relative Size)*.

As director characteristics may influence which directorships are eventually disclosed, we include the following director characteristics in our analyses: director gender in a form of an indicator variable equal to 1 if the director is female and 0 otherwise (*Female Director*), director age (*Director Age*), and director qualifications as proxied by the number of post-graduate degrees and certifications held (*Director Ed Quals*) and the total number of lifetime board seats held at

public companies as of the end of the reporting year (*Director Total Board Seats*). Finally, we include an indicator variable for directorships that were held five or more years prior to the date of the director's biographic disclosure (*Old Directorship*).

Regression results are reported in Table 3. In Panel A, we examine a univariate logistic model and, in Panel B, report estimates from the model which includes all control variables. The sign of the main coefficients is consistent across the two specifications. Therefore, we limit our discussion to the results reported in Panel B.

We find evidence that a directorship is more likely to be undisclosed if the firm where the directorship was held experienced any adverse event at the time the directorship was held, whether it is an SEC investigated restatement (coefficient of 0.114, p-value of 0.047), a litigation (coefficient of 0.080, p-value of 0.007), or bankruptcy (coefficient of 0.277, p-value <0.001). If we define the adverse event as taking on a value of 1 if any of the three negative outcomes was experienced by the firm (column 4), the coefficient is 0.096 (p-value <0.001) indicating that a directorship at a firm which experienced an adverse event is more likely to be undisclosed in a director's biography.

Other variables that are associated with non-disclosure include the relative size of the reporting firm to the other firm. The coefficient on *Relative Size* is significant in all four specifications at 1% or better (coefficient of 0.136, p-value <0.001 in column 4). The positive coefficient suggests that there is more non-disclosure when the firm at which the directorship was held is smaller than the reporting firm. Also, reporting firms with larger book to market (coefficient of 0.054, p-value 0.052), lower profitability (–0.337, p-value <0.001), lower analyst coverage

(coefficient of –0.017, p-value <0.001) and those not audited by a big four auditor (–0.239, p-value <0.001) are all more likely to have directors whose biographies omit disclosure of a directorship.

Some of the characteristics of the other firm seem to affect the likelihood of disclosure of the other directorship. Firms with higher book to market (–0.077, p-value <0.001) and higher leverage (–0.128, p-value <0.001) are more likely to be disclosed. Similarly, directorships which were held more than five years earlier are significantly more likely to go undisclosed (1.519, p-value <0.001). Furthermore, being in the same industry (–0.073, p-value 0.01) or at the same location as the reporting firm (–0.079, p-value 0.012) increases the likelihood that the directorship will be disclosed. Finally, younger directors (–0.004, p-value 0.029) and directors who have had more directorships (0.072, p-value <0.001) are more likely to have undisclosed directorships. The results of the analysis suggest that the decision to not disclose a directorship is a related to several factors, including the relevance of such a directorship to the reporting firm (as documented by the significant coefficient on *Relative Size*, *Same Industry* and *Same Location*), the information environment of the reporting firm (*Big Four*, *#_Analysts*), characteristics of the directors (*Director Age*, *Director Total Board Seats*), and the reputation of the other firm (*Adverse Event*).

We next examine whether the tendency to not disclose directorships at firms with adverse events increases with the severity of the event. We limit this analysis to accounting restatements because it is the only adverse event with a well-defined measure of severity. We consider two alternative definitions of severity: the first codes a restatement as severe if the restatement amount has an impact on a firm's equity greater than 1% of total assets. The second definition of codes a restatement as severe if it involves a revenue line item (Palmrose et al., 2004). We repeat the estimation in equation (1) but now define the adverse event indicator to take a value of one for

severe restatements only. We also include a benchmark estimate of the probability of non-disclosure when the adverse event includes non-severe restatements only.

The results of this cross-sectional test is presented in Table 4. Panel A presents the univariate results of the logit regression. In columns (1) and (2), we define severe restatements as restatements that have an equity impact that is greater than 1% of total assets. We find that the likelihood of non-disclosure of directorships is higher when the firm where the directorship was held reported a severe restatement during the director's tenure. In column (2), we find that the coefficient on the adverse event indicator is positive and significant (0.672, p-value < 0.001), suggesting higher likelihood of non-disclosure when the directorship was held at firms that reported a severe restatement during the director's tenure. When we examine the effect of having a nonsevere restatement in column (1), we also find a positive effect on the likelihood of non-disclosure (0.150, p-value 0.018), but the estimated coefficient is much smaller than that in column (2) (F-test = 10.81, p-value 0.001).

Similarly, when we define severe restatements as those that involve misstatement of revenue, we find that the impact of reporting revenue-related restatements (column 3) is greater than reporting a non-revenue-related restatements (column 4). The F-test shows that the difference in the coefficients are statistically significant (F-test = 3.22, p-value 0.073). Panel B repeat the analysis after including all control variables from Table 3. Our findings are very similar to those in the univariate analysis, yet with lower coefficient estimates. These findings suggest that the likelihood of non-disclosure of directorships at firms with adverse events increases with the severity of the event.

4.3 Effect of SEC regulation on non-disclosure

Next, we examine how regulation affected the disclosure choices in director biographies. We expand our model in equation (1) by including a *Post Regulation* indicator for proxy statement filed after the SEC's regulation took place. Specifically, we run the following logistic regression:

$$\Pr(\textit{Non-Disclosure}_{ijk}) =$$
$$\alpha_0 + \beta_1 \times \textit{AdverseEvent}_{ik} + \beta_2 \times \textit{Post Regulation}$$
$$+ \ \beta_3 \times \textit{AdverseEvent}_{ik} \times \textit{Post Regulation} + \beta_{4\text{-}10} \times \textit{Reporting Firm Controls}_j$$
$$(2)$$
$$+ \ \beta_{11\text{-}13} \times \textit{Other Firm Controls}_k + \beta_{14\text{-}15} \times \textit{Pair-Wise Controls}_{jk}$$
$$+ \ \beta_{16\text{-}18} \times \textit{Director Controls}_i + \textit{Industry FE} + \varepsilon_{ijk}$$

As before, the unit of observations is a directorship held by a director (*i*) of a reporting firm (*j*) in another firm (*k*). The *Post Regulation* indicator takes on value of 1 if the proxy statement which includes the director's biographical information was filed after the regulation took effect on March 1, 2010, zero otherwise.

Table 5 reports the estimated coefficients from the multivariate logit regressions. In all four specifications presented in Table 5, the coefficient on *Post Regulation* is negative and statistically significant, suggesting a decline in the probability of non-disclosure following SEC regulation. In economic terms, the estimated coefficient suggests that following the SEC regulation, the probability of non-disclosure drops from 20.5% to 14.9% based on the model estimated in column 4 (= –0.777 , p-value <0.001).[24]

If the SEC regulation makes it more difficult to hide directorships at firms where the director where adverse events had occurred, we would expect that the frequency of non-disclosure of directorships held at such firms would have declined even further compared to the frequency of

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[24] We compute the predicted probabilities by evaluating each coefficient at the mean of the sample and calculating the predicted probability as 1/(1+exponent of the negative summed value).

non-disclosure of other directorships. To explore this possibility, we examine the interaction term *Adverse Event × Post Regulation* and find that the likelihood of non-disclosure of directorships at firms experiencing any of the adverse events declined. In particular, the likelihood of a non-disclosure of a directorship at a firm with a SEC-investigated restatement declines from 25% to 17.4% in the post-regulation period (= –0.173, p-value 0.042).[25] Similarly, for a directorship at a firm faced with securities litigation, the coefficient is negative (–0.069) and significant at the 10% level (p-value 0.098), while for a directorship at a firm which filed for bankruptcy, the coefficient is negative (–0.489) and significant at the 1% level (p-value <0.001). The results point to the effectiveness of the regulation in reducing the number of undisclosed directorships, and even greater reduction in non-disclosure of directorships at firms that experienced an adverse event.

4.4 Changes analysis

We examine whether changes in disclosure of directorships are systematically related to whether the other firm experienced an adverse event. Note that the new SEC regulation only requires disclosure of directorships held in the past 5 years. After the 5-year period has lapsed, whether one discloses the directorship becomes voluntary. It is possible that one is more likely to stop disclosing directorships that were held at troubled companies even after the SEC regulation. We examine whether there is a systematic pattern under which directorships are added or dropped in the biographies.

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[25] We compute the predicted probabilities by evaluating each coefficient at the mean of the sample. For example, prior to SEC's regulation, the summed value of each coefficient at the sample mean for firms with adverse events is -1.0995 and the resulting predicted probability is $1/(1+\exp(1.0995))= 25\%$. Similarly, following the SEC regulation, the calculation for the adverse event sample is $1/(1+\exp(1.557))= 17.4\%$.

We first start with cases where directors are dropping disclosure of directorships. We limit our sample to observations where there was a disclosure of directorship held at the other firm ($Nondisclosure_{ijk,t-1}= 0$) in the prior year. Using this sample, we repeat the analysis in equation (2) but now use the changes in non-disclosure as the dependent variable, defined as $Nondisclosure_{ijk,t}$ − $Non\text{-}disclosure_{ijk,t-1}$. Because the sample is limited to observations where $Nondisclosure_{ijk,t-1}$ equals zero, the dependent variable takes a value of one where the disclosure of directorship was dropped in the current year, and zero otherwise.

Table 6 Panel A shows the estimated results. We find that firms are more likely to drop disclosure of directorships held at firms that experience a securities litigation or bankruptcy. The estimated coefficient on the *Adverse event* indicator is positive and significant in both columns (2) and (3). Column (4) shows that directorship held at firms that experienced an adverse event (*Any adverse event* = 1) are always more likely to be dropped (= 0.146, p-value<0.001). The estimated coefficient on the *Post regulation* indicator suggests that following SEC regulation, there is a drop in the tendency to stop disclosing directorships (= −1.227, p-value<0.001). More importantly, the tendency to stop disclosing directorships held at adverse event became weaker following SEC regulation (= −0.143, p-value =0.02).

Next, we examine initiation of disclosure of previously undisclosed directorships. This time, we condition our sample to observations where there was a non-disclosure of the directorship held at the other firm in the prior year (t-1) (*Nondisclosure_{ijk,t-1}*= 1). As before, the dependent variable is the changes in non-disclosure defined as *Nondisclosure_{ijk,t}* - *Non-disclosure_{ijk,t-1}*. The changes variable takes a value of negative one where the disclosure was newly added and zero otherwise.

Table 6, Panel B reports the estimated coefficients from the multivariate logit regressions. In three of the four specifications, the coefficient on *Adverse Event* is negative and statistically significant, suggesting a lower likelihood of new disclosure of previously undisclosed directorships if the directorship was held at a troubled firm. Not surprisingly, there is an increase in the likelihood of new disclosure after the SEC regulation. The coefficient of the *Post Regulation* indicator is positive in all four specifications. However, the estimated coefficient on the interaction term, *Post Regulation × Adverse Event,* is positive and significant (=0.585 p-value<0.001 in column 4), suggesting that for directorships held at adverse event firms, there is a lower likelihood of SEC regulation leading to increased disclosure. The findings suggest that there is there is a systematic pattern under which directorships are dropped in the biographies for adverse event firms, and this pattern of strategic disclosure.

4.5 Consequences of non-disclosure

As discussed above, prior research shows that there are reputational consequences to directors who are on the boards of companies that experience adverse events. Such reputational concerns may create incentives to not disclose directorships held at firms with adverse events. We test whether there are real consequences to non-disclosure of past experience in director biographies. We focus on three settings where we expect such consequences, if any, to be observed: (i) the market reaction to director appointments, (ii) the ex-post change in the number of directorships held by the director, and (iii) ISS recommendations and subsequent voting outcomes.

A hypothesis of consequences of non-disclosure is based on two elements. First, disclosure of past experience should contain information relevant to the decision-makers in a given setting.

For market reaction to director appointments, the information should be relevant to assessing the impact that a director will have on firm value. For changes in directorships, the information that is not disclosed should be relevant to shareholders and others involved in process of director appointments at firms where a director may be a director or potential nominee. Finally, to affect ISS voting recommendations and voting outcomes, the undisclosed information should be an input to ISS voting recommendations and a factor in shareholder voting decisions.

A second element of the hypothesis of consequences of nondisclosure is that the information is costly to obtain from other sources. If participants in a given setting have ready access to information regarding adverse-event directorships outside of director biographies, then attempts to "hide" such information by not disclosing it in director biographies will presumably be ineffective.

Because we are interested in whether there are consequences of *disclosure* of adverse events for directors rather than the consequences of adverse events per se, we focus on observations where directors held adverse-event directorships and compare outcomes directors disclosed such directorships with those when they did not disclose.

Our first set of tests focuses on the market reaction to director appointments. One limitation of many director appointments is that they occur around the proxy season which is confounded by the release of other information in the proxy filings. We therefore focus on appointments that are announced by firms using Form 8-K rather than on proxy filings.[26] In our sample, we find 1,934

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[26] Firms are required to file form 8-K, section 5.01. within five business days of a director appointment that happens outside of the regular election process.

such appointments, out of which 1,567 are the appointments of directors whose negative past experience was disclosed and 367 directors whose such information was withheld.[27]

The variable of interest is *CAR,* which we calculate as cumulative market-adjusted returns, measured over either a two-day window (–1, 0) or a three-day window (–1, 1) where day 0 is the date of the initial announcement, as filed through a Form 8-K. We first examine univariate differences in the appointment returns of the directors who were on boards of firms which experienced an adverse event and such directorship is disclosed in the biography at the director appointment time and the appointment returns of the directors whose adverse history is not disclosed in the biography at the announcement time. In the univariate tests presented in Table 5, the market reaction for the subsample of directors with undisclosed prior adverse-event directorships is much more positive (0.8% for the two-day window and 1.1% for the three-day window) and significant at the 1% level (p-value < 0.001), relative to the market reaction for the subsample of directors with disclosed adverse-event directorships.

In the multivariate tests, we control for other director characteristics that may affect market reactions to director appointments. Specifically, we control for financial expertise of the directors (*Financial Expert*), which takes on value of 1 if the reporting firm classifies the director as such, 0 otherwise, director age (*Director Age*), director expertise, as proxied by the number of post-graduate degrees or other certifications (*Director Ed Quals)* and the number of lifetime directorships held (*Director Total Board Seats*), and director gender (*Female Director*). We also control for the presence of any other material announcements occurring within five days of the appointment announcement (*Other 8Ks*). In our multivariate analysis, the variable of interest is

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[27] We define a director to be non-disclosing if she fails to disclose all directorships at a firm with adverse events.

Non-Disclosure, which takes on value of 1 if those directorships held by the director which were at a firm or firms which experience adverse events were not disclosed at the appointment time, 0 otherwise. The coefficient on *Non-Disclosure* in the 3-day market test is 0.011 (p-value 0.058), indicating that the market reaction to the directors appointed whose negative past is not disclosed is 1.1% higher relative to the market reaction to the appointment of the directors with disclosed negative past.

The results of our first test suggest that non-disclosure has significant market consequences. This suggests that the information is relevant and material to market assessments of the impact on firm value of a director appointment, and that there are real search costs precluding market participants from obtaining this information in a timely fashion. The magnitude of the market reaction to the information when disclosed (relatively speaking, −1.1% of firm equity value) suggests either that these search costs must be material or that the market underestimates the extent of selective non-disclosure (and thus does not see the need to engage in an independent search). Our results suggest that efforts by the SEC to tighten disclosure rules in 2010 plausibly increased the disclosure of market-relevant information.

Our second test focuses on potential labor market consequences. If information on adverse-event directorships from biographies reduces the likelihood of the individuals obtaining future directorships or retaining current ones, individuals will have incentives to withhold such information. To examine this possible consequence, we limit our sample to all directors who held directorships at firms that experienced an adverse event during the director's tenure, and examine whether the impact on future directorships varies by the choice to disclose or not disclose these negative events.

We run the following regression model using OLS.

$$\Delta Directorships_{ij} = \alpha_0 + \beta_1 \times \textit{Non-Disclosure}_{ij} + \beta_{2\text{-}8} \times \textit{Reporting Firm Controls}_j$$
$$+ \beta_{9\text{-}12} \times \textit{Director Controls}_i + \textit{Industry FE}_j + \varepsilon_{ij} \qquad (3)$$

The unit of analysis is director (i)-reporting firm (j) pairs. Our outcome variable is *ΔDirectorships*, which is defined as the number of directorships held in year $t+n$ (n=1, 2) less the number of directorships held in year t, where t is the proxy disclosure reporting year. The variable of interest is *Non-Disclosure*, which was defined earlier. If non-disclosure of negative directorships mitigates the negative consequences potentially experienced in the labor market for directors, then we would expect the coefficient on *Non-Disclosure* to be positive. Indeed, the results presented in Table 8 suggest this to be the case. The coefficient on *Non-Disclosure* is 0.045 (p-value 0.004), suggesting that not disclosing adverse prior directorships results in more directorships being held by the directors one year following the filing in which disclosure was made or not made. Results are similar if we extend the window to two years following the non-disclosure with greater economic significance (coefficient of 0.081, p-value 0.002).

We next explore whether the results are due to the non-disclosing directors' larger gain in future new directorships or lower loss of currently held directorships. We first explore the findings by limiting the dependent variable to pre-existing directorships: i.e., directorships held by a director the reporting firm filed the proxy statement in which we observe the disclosure choice. The estimation in column (3) report the results. The coefficient on *Non-Disclosure* is still positive (0.059) and significant (p-value 0.011), indicating that the directors with adverse past directorships which are not disclosed lose fewer current directorships in the two years after the proxy statement detailing their biographies is filed relative to the directors whose past adverse directorships are disclosed. In column (4), we construct the dependent variable using new directorships only. The

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estimated coefficient on *Non-Disclosure* is negative (-0.097), but not significant. In contrast to the findings for currently held directorships, we do not find non-disclosure of directorships held at adverse-event firms leading to additional future directorships. The results in Table 8 suggest that non-disclosure of adverse-event directorships can mitigate the reputational consequences of adverse events but most of the impact appears to be in the retention of existing directorships. This is consistent with the vetting process for new directorships being sufficiently rigorous that nondisclosure would have little impact on obtaining new directorships.

Finally, we examine whether the disclosure of the directorships at firms which experience an adverse event during the director's tenure affects the type of voting recommendation the director nomination receives from the ISS using the following regression model:

ISS Recommends Against$_{ij}$ or *% Vote Against$_{ij}$*
$$= \alpha_0 + \beta_1 \times \textit{Non-Disclosure}_{ij} + \beta_{1\text{-}5} \times \textit{Director Controls}_i + \textit{Industry FE} + \varepsilon_{ij} \quad (4)$$

Our variable of interest is *Non-Disclosure*, as defined earlier, and the outcome variable is an indicator variable *ISS Recommends Against*, which is equal to 1 if the ISS either recommends that the investors vote against the election of the named director, or if the ISS withholds its recommendation regarding the director, and 0 otherwise. We control for other director characteristics that may influence ISS's recommendation, including the financial expertise of the director (*Financial Expert*), the age of the director (*Director Age*), director's expertise and qualifications, as proxied by the number of post-graduate degrees or certifications (*Director Ed Quals*) and the total lifetime board seats held (*Director Total Board Seats*), and the gender of the director (*Female Director*). Table 9 column (1) presents the results of the test. Based on the results, we do not find evidence that ISS's recommendation is affected by the decision to not disclose the past directorships at firms which experienced adverse events during the director's tenure. The

coefficient on *Non-Disclosure* is positive (0.070), but not significant (p-value 0.893). Examining the actual voting outcomes yields similar results and leads to similar conclusions. In column (2) of Table 9, the outcome variable is the % of votes cast against the director on the ballot (*%Vote Against*). The coefficient on *Non-Disclosure* is positive (0.002) but not significant (p-value 0.704), indicating the actual voting outcomes for directors who held adverse directorships do not vary by the decision to disclose or not disclose such directorships.

5. Conclusion

We examine how directors manage their reputation by strategically disclosing prior experience in their biographies. Using disclosures in the proxy filings with the SEC, we find that some directors are more likely to choose not to disclose directorships held at other firms when those firms experienced adverse events such as accounting restatements, securities litigation, or bankruptcy during the directors' tenure. Prior to changes to SEC rules in 2010, non-disclosure of adverse-event directorships was more likely when these directorships were past directorships at the time of filing, as disclosure of current directorships was required by the SEC. Under new SEC rules, which mandated the disclosure of recent past directorships from March 2010, we find that non-disclosure rates for past adverse-event directorships declined significantly. These results suggest that regulation was effective in precluding individuals from withholding unfavorable information.

We find there are real consequences for disclosing directorships held at troubled firms. The average stock market reaction to director appointments is more negative when directors disclose directorships at adverse-event companies than when they do not disclose. Also, there are labor

market consequences. Directors that disclose adverse directorships are more likely to lose current directorships in the two years after the filing relative to the directors who do not.

Our results are suggestive of significant amount of selective disclosure in director biographies. We add to and bring together several strands of literature that examine corporate governance, disclosures and its consequences, and reputation management of individuals. We also innovate beyond prior disclosure studies by examining a setting where we can directly observe the withholding of information. Our findings should be useful to academics, regulators, and practitioners who wish to better understand the implications of disclosure of director biographies in proxy statements and the existence of search costs in capital and labor market settings.

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Appendix 1: Data collection process

Step 1: For each firm-year, identify directors and obtain relevant SEC filing.

For each firm-year in Equilar, we identify the relevant SEC filing for collection of director biographies as well as the identities of the directors we expect to find in that filing. For purposes of illustration, we focus on 1-800-FLOWERS, Inc. for the fiscal year ended June 30, 2008. The relevant SEC filing was made on Form DEF 14A on October 24, 2008.[28]

Step 2: Tag biographies for each director.

From Equilar, we know that the directors on the board at the time of filing the proxy filing for the fiscal year were Lawrence Calcano, James Cannavino, John Conefry, Leonard Elmore, Christopher McCann, James McCann, Jan Murley, and Jeffrey Walker. We hand-collected biographies for each of these eight directors from the SEC filing using a Web-based text annotation interface illustrated below:

Step 3: Scan biographies for disclosures of other directorships

For each director, we use Equilar to identify other directorships held by that director, either at or prior to the time of the disclosure. Focusing on Jan Murley as a director 1-800-FLOWERS, Inc. on October 24, 2008, we identified one past directorship (Boyds Collection) and two current directorships (The Clorox Company and Qwest Communications).

For each other directorship, we used the name of the firm and regular expressions to identify matches. In the example here, we find matches for Boyds Collection and The Clorox Company, but no match for Qwest Communications.

Murley, Jan

Board Memberships from Equilar Database

○ BOYDS COLLECTION LTD

○ CLOROX CO /DE/

○ QWEST COMMUNICATIONS INTERNATIONAL INC

Director Biography

Jan L. Murley, age 57, has been a Director of the Company since February 2007. Ms. Murley is currently serving as Interim President for the Company's Consumer Floral business segment since September 15, 2008. From June 30, 2008 to September 15, 2008, she rendered marketing consulting services to the Company.

Ms. Murley has served as a consultant to Kohlberg Kravis Roberts Co. (KKR) (a private equity firm) from November 2006. From October 2003 to July 2006, Ms. Murley was Chief Executive Officer and a Director of The Boyds Collection, Ltd. (a publicly traded designer and manufacturer of gifts and collectibles), which was majority-owned by KKR. Boyds filed for bankruptcy under Chapter 11 of the US Bankruptcy Code in October 2005 and emerged from Chapter 11 in June 2006 as a private company. Prior to that, she was group Vice President - Marketing of Hallmark Cards, Inc. (a publisher of greeting cards and related gifts) from 1999 to 2002. Previously, Ms. Murley was employed by Procter & Gamble for more than 20 years, with her last position being Vice President for skin care and personal cleansing products. Ms. Murley has been a Director of The Clorox Company since November 2001 and serves as a member of its Audit and Nominating and Governance Committees.

Because a given name is written in different ways, our regular expressions are designed to allow for minor variations (e.g., omission of "Inc." or spelling "Corp" as "Corporation" or vice versa; inclusion or omission of the state of incorporation ("/DE/" in the example above). Additionally, we flagged companies for which there was an abnormally high rate of apparent non-disclosure and manually checked the biographies and information on the firm to confirm non-disclosures. In many such cases, we identified an alternative name not captured by our regular expression (for example, in the filing for 1-800-FLOWERS, Inc. for the subsequent fiscal year (i.e., June 30, 2009) there is a disclosure for "Qwest Communications," which we confirmed is the same firm as Equilar's "QWEST COMMUNICATIONS INC"; having confirmed this alternative name, we can then "tag" the alternative name and also search for this name (and variants thereon) whenever Qwest Communications is an other directorship for a given director.

Appendix 2: Variable definitions

Variable	Definition	Source
Non-Disclosure	Indicator variable equal to 1 if a directorship held by a director is not disclosed in the director's biography in the reporting firm's proxy disclosure, 0 otherwise.	Equilar and proxy filings
Post Regulation	Indicator variable equal to 1 if the proxy filing occurred on or after March 1, 2010 and 0 otherwise.	Equilar
Adverse events indicator		
SEC-Investigated Restatement	Indicator variable equal to 1 if the public firm at which the director holds/held a directorship had a restatement which was investigated by the SEC and the director's tenure includes periods to which the restatement pertains, 0 otherwise.	Audit Analytics
Litigation	Indicator variable equal to 1 if the public firm at which the director holds/held a directorship had securities litigation and the period which the litigation pertains to spans, at least partially, director tenure dates, 0 otherwise.	Audit Analytics
Bankruptcy	Indicator variable equal to 1 if the public firm at which the director holds/held a directorship filed for bankruptcy at the time the director was on the board, 0 otherwise.	Audit Analytics
Any Adverse event	Indicator variable equal to 1 if the public firm at which the director holds/held a directorship experience any of the preceding adverse outcomes, 0 otherwise.	Audit Analytics
Consequences		
CAR	Market-adjusted (value-weighted) cumulative abnormal returns calculated over three days (–1 to +1) centered on the date of 8-K disclosure.	CRSP
ΔDirectorships	The number of directorships currently held at public companies at $t + 2$ less the number of directorships held at public firms at t.	BoardEx
ISS Recommends Against	Indicator variable equal to 1 if the ISS either recommends that the investors vote against or withhold votes from the election of the named director, and 0 otherwise.	ISS
%Vote Against	The total number of votes cast against or withheld from a director listed on the ballot divided by the total number of votes cast.	ISS
Control variables		
Relative Size	The log of market value of the reporting firm, measured at the end of the most recent fiscal year, minus log of market value of the other directorship firm, measured at the end of the most recent fiscal year during which the director held the directorship.	Compustat
Book to Market$_{Rep}$	Book value of equity (at – lt) divided by market value of equity (csho × prcf) of the reporting firm, measured at the end of the most recent fiscal year.	Compustat
Leverage$_{Rep}$	Total long term debt (dlt) + debt in current liabilities (dlcc) divided by the shareholder's equity (ceq) of the reporting firm, measured at the end of the most recent fiscal year.	Compustat

Variable	Definition	Source
ROA_{Rep}	Income before extraordinary items (ib) divided by total assets (at) of the reporting firm, measured at the end of the most recent fiscal year.	Compustat
$Big\ Five_{Rep}$	Indicator variable equal to 1 if the reporting firm was audited by a big-five auditor in the most recent fiscal year, 0 otherwise.	Compustat
$\#\_Analysts_{Rep}$	The total number of analysts covering the reporting firm at any time during the most recent fiscal year.	IBES
$Institutional\ Ownership_{Rep}$	The % of float shares held by institutional investors.	FactSet
$Book\ to\ Market_{Other}$	Book value of equity (at – lt) divided by market value of equity (csho × prcf) of the other directorship firm, measured at the end of the most recent fiscal year during which the director held the directorship.	Compustat
$Leverage_{Other}$	Total long term debt (dlt) + debt in current liabilities (dlcc) divided by the shareholder's equity (ceq) of the other directorship firm, measured at the end of the most recent fiscal year during which the director held the directorship.	Compustat
$Old\ Directorship_{Other}$	Indicator variable equal to 1 if the directorship held at the other firm concluded at least five years prior to the proxy filing date, 0 otherwise.	Equilar
Same Industry	Indicator variable equal to 1 if the reporting firm and the other directorship firm operate in the same 1-digit SIC industry, 0 otherwise.	Compustat
Same Location	Indicator variable equal to 1 if the reporting firm and the other directorship firm are headquartered in the same state, 0 otherwise.	Compustat
Female Director	Indicator variable equal to 1 if the director is female, 0 otherwise.	BoardEx
Director Age	Age, in years, of the director at the end of the reporting firm's fiscal year.	BoardEx
Director Ed Quals	Total number of post-graduate degrees and professional licenses held by the director.	BoardEx
Director Total Board Seats	The number of lifetime public company directorships held by the director as of the end of the reporting firm's most recent fiscal year.	BoardEx
Other 8Ks	Indicator variable equal to 1 if there are any other material events disclosed by the firm within the five-day period of the director appointment announcement, 0 otherwise.	Audit Analytics

Table 1 Sample

Number of distinct disclosing firms	5,167
Number of distinct director-disclosing firm combinations	30,171
Number of director-disclosing firm-fiscal year combinations	159,657
Number of director-disclosing firm-fiscal year-other board combinations	262,420
- Reporting firms without all financial data	(41,571)
- Other directorships without all financial data	(1,014)
- Directors missing demographic information	(680)
Observations meeting data requirements:	219,155
Observations: Past other directorships	95,075
Observations: Current other directorships	124,080
Observations meeting data requirements	219,155

Notes: This table presents the composition of our sample. As discussed in the text, an observation is a combination of a director, a disclosing firm, a fiscal year-end, and another directorship (i.e., directorship on another board).

Table 2 Frequency of non-disclosure

Panel A: Number of disclosed and undisclosed directorships: by directorships held at firms with adverse events

	Undisclosed	Disclosed	Total
All observations	44,485	174,470	219,155
No adverse events	34,790	139,406	174,196
Any adverse event	9,895	35,064	44,959
By type of adverse event:			
SEC-investigated restatements	1,766	5,649	7,415
Securities litigation	7,706	28,794	36,500
Bankruptcy	1,430	3,610	5,040

Panel B: Number of disclosed and undisclosed directorships: Pre- and post-regulation

	Pre-regulation		Post-regulation	
	Undisclosed	Disclosed	Undisclosed	Disclosed
All observations	26,134	94,889	18,551	79,581
No adverse events	20,227	76,090	14,563	63,316
Any adverse event	5,907	18,799	3,988	16,265
By type of adverse event:				
SEC-investigated restate.	1,028	2,944	738	2,705
Securities litigation	4,686	15,914	3,020	12,880
Bankruptcy	802	1,470	628	2,140

Notes: This table presents the number of disclosed and undisclosed directorships. An observation in our sample is a director-disclosing firm-fiscal year-other board. In Panel A, we present the numbers by directorships held at other firms where there was an adverse event (SEC-investigated restatements, security litigation, or bankruptcy) during the director's tenure and those held at other firms with no such adverse events. Panel B presents the number of disclosed and undisclosed directorships in filings made before and after amendments to disclosure regulations by the SEC that took effect on March 1, 2010.

Table 3 Likelihood of directorship non-disclosure

Panel A Univariate logit regressions

VARIABLES	(1) SEC-investigated restatement	(2) Securities litigation	(3) Bankruptcy	(4) Any adverse event
Adverse Event Indicator	0.209***	0.056*	0.450***	0.113***
	[<0.001]	[0.056]	[<0.001]	[<0.001]

Panel B Multivariate logit regressions

VARIABLES	(1) SEC-investigated restatement	(2) Securities litigation	(3) Bankruptcy	(4) Any adverse event
Adverse Event Indicator	0.114**	0.080***	0.277***	0.096***
	[0.047]	[0.007]	[<0.001]	[<0.001]
Relative Size	0.135***	0.136***	0.134***	0.136***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Book to Market$_{Rep}$	0.051*	0.052*	0.050*	0.054*
	[0.067]	[0.060]	[0.074]	[0.052]
Leverage$_{Rep}$	-0.052	-0.050	-0.054	-0.049
	[0.182]	[0.194]	[0.163]	[0.201]
ROA$_{Rep}$	-0.336***	-0.339***	-0.335***	-0.337***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Big Four$_{Rep}$	-0.235***	-0.239***	-0.231***	-0.239***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
#_Analysts$_{Rep}$	-0.017***	-0.017***	-0.016***	-0.017***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Institutional Ownership$_{Rep}$	-0.015	-0.011	-0.019	-0.012
	[0.756]	[0.820]	[0.679]	[0.791]
Book to Market$_{Other}$	-0.079***	-0.079***	-0.076***	-0.077***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Leverage$_{Other}$	-0.124***	-0.125***	-0.121***	-0.128***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Old Directorship$_{Other}$	1.519***	1.521***	1.517***	1.519***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Same Industry	-0.075***	-0.074***	-0.076***	-0.073**
	[0.008]	[0.009]	[0.008]	[0.010]

Same Location	-0.077**	-0.077**	-0.075**	-0.079**
	[0.015]	[0.015]	[0.018]	[0.012]
Female Director	0.025	0.025	0.028	0.026
	[0.495]	[0.495]	[0.448]	[0.477]
Director Age	-0.004**	-0.004**	-0.004**	-0.004**
	[0.032]	[0.030]	[0.044]	[0.029]
Director Ed Quals	0.007	0.007	0.008	0.007
	[0.575]	[0.623]	[0.549]	[0.601]
Director Total Board Seats	0.072***	0.072***	0.072***	0.072***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Constant	-1.486***	-1.484***	-1.584***	-1.512***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Industry FE$_{Rep}$	Yes	Yes	Yes	Yes
Industry FE$_{Other}$	Yes	Yes	Yes	Yes
Observations	219,149	219,149	219,149	218,854
r2_p	0.0801	0.0802	0.0803	0.0802

Notes: This table reports the estimation from a logistic regression of equation (1). The dependent variable is *Non-Disclosure,* an indicator variable that takes a value of 1 if the director's directorship at the other firm is not disclosed in the reporting firm's proxy statement, 0 otherwise. The indicator variable (*Adverse Event*) takes on value of 1 if the other firm experienced a negative event during director's tenure. In specification (1), adverse event of interest is an SEC-investigated restatement, while in specifications (2) and (3), it is securities litigation and bankruptcy, respectively. In the last specification (4), the indicator variable *Adverse Event* takes on value of 1 if the other firm experienced any of these three types of events. All other variables are defined in Appendix 2. The specification includes the reporting firm as well as other-firm industry fixed effects. Standard errors are clustered at the firm level. Significance is denoted by ***, **, and * for 1%, 5%, and 10% respectively, using a two-tailed test.

Table 4 Likelihood of directorship non-disclosure and severity of the adverse event

Panel A Univariate logit regressions

VARIABLES	Severe= Equity impact > 1% of assets		Severe = Revenue-related restatement	
	(1) Non-severe	(2) Severe	(3) Non-severe	(4) Severe
Adverse Event Indicator	0.150**	0.672***	0.124*	0.346***
	[0.018]	[<0.001]	[0.084]	[<0.001]
F-test	10.81		3.22	
[p-value]	[0.001]		[0.073]	

Panel B Multivariate logit regressions

VARIABLES	Severe = Equity impact > 1% of assets		Severe = Revenue-related restatement	
	(1) Non-severe	(2) Severe	(3) Non-severe	(4) Severe
Adverse Event Indicator	0.061	0.509***	0.054	0.212**
	[0.328]	[<0.001]	[0.458]	[0.027]
F-test	8.50		1.64	
[p-value]	[0.004]		[0.201]	
Relative Size	0.135***	0.134***	0.135***	0.135***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Book to Market$_{Rep}$	0.051*	0.051*	0.051*	0.051*
	[0.066]	[0.067]	[0.066]	[0.069]
Leverage$_{Rep}$	-0.051	-0.051	-0.051	-0.052
	[0.184]	[0.184]	[0.187]	[0.177]
ROA$_{Rep}$	-0.336***	-0.334***	-0.336***	-0.336***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Big Four$_{Rep}$	-0.236***	-0.235***	-0.235***	-0.236***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
#_Analysts$_{Rep}$	-0.017***	-0.017***	-0.017***	-0.017***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Institutional Ownership$_{Rep}$	-0.014	-0.016	-0.015	-0.014
	[0.758]	[0.736]	[0.755]	[0.759]
Book to Market$_{Other}$	-0.079***	-0.080***	-0.079***	-0.078***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Leverage$_{Other}$	-0.123***	-0.122***	-0.122***	-0.122***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Old Directorship$_{Other}$	1.519***	1.520***	1.519***	1.519***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Same Industry	-0.075***	-0.076***	-0.076***	-0.075***
	[0.008]	[0.007]	[0.008]	[0.008]

	(1)	(2)	(3)	(4)
Same Location	-0.077**	-0.076**	-0.077**	-0.076**
	[0.015]	[0.016]	[0.014]	[0.016]
Female Director	0.026	0.025	0.026	0.026
	[0.486]	[0.507]	[0.488]	[0.482]
Director Age	-0.004**	-0.004**	-0.004**	-0.004**
	[0.034]	[0.032]	[0.034]	[0.035]
Director Ed Quals	0.007	0.007	0.007	0.007
	[0.579]	[0.590]	[0.582]	[0.576]
Director Total Board Seats	0.072***	0.072***	0.072***	0.072***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Constant	-1.488***	-1.482***	-1.486***	-1.492***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Industry FE$_{Rep}$	Yes	Yes	Yes	Yes
Industry FE$_{Other}$	Yes	Yes	Yes	Yes
Observations	219,149	219,149	219,149	219,149
Pseudo R^2	0.0800	0.0802	0.0800	0.0801

Notes: This table reports the estimation from a logistic regression of equation (1). The indicator variable (*Adverse Event*) takes on value of 1 if the other firm experienced an SEC-investigated restatement. For columns (1) and (3) the *Adverse Event* indicator is one for all nonsevere restatements. For columns (2) and (4), the indicator is one for only severe restatements. Material restatements is defined as restatements that have an equity impact that is greater than 1% of total assets (in columns (1) and (2)) or those that are revenue related (in columns (3) and (4)). The dependent variable is *Non-Disclosure,* an indicator variable that takes a value of 1 if the director's directorship at the other firm is not disclosed in the reporting firm's proxy statement, 0 otherwise. All other variables are defined in Appendix 2. The specification includes the reporting firm as well as other firm industry fixed effects. Standard errors are clustered at the firm level. Significance is denoted by ***, **, and * for 1%, 5%, and 10% respectively, using a two-tailed test.

Table 5 Impact of SEC regulation on likelihood of directorship non-disclosure

VARIABLES	(1) SEC-Investigated Restatement	(2) Securities Litigation	(3) Bankruptcy	(4) Any adverse events
Adverse Event	0.190***	0.089***	0.578***	0.141***
	[0.003]	[0.005]	[<0.001]	[<0.001]
Post Regulation	-0.797***	-0.791***	-0.794***	-0.777***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Adverse Event × Post Regulation	-0.173**	-0.069*	-0.489***	-0.129***
	[0.042]	[0.098]	[<0.001]	[0.001]
Relative Size	0.135***	0.136***	0.134***	0.142***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Book to Market$_{Rep}$	0.051*	0.052*	0.050*	0.084***
	[0.067]	[0.060]	[0.074]	[0.002]
Leverage$_{Rep}$	-0.052	-0.050	-0.054	-0.012
	[0.182]	[0.194]	[0.163]	[0.760]
ROA$_{Rep}$	-0.336***	-0.339***	-0.335***	-0.318***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Big Four$_{Rep}$	-0.235***	-0.239***	-0.231***	-0.334***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
# Analysts$_{Rep}$	-0.017***	-0.017***	-0.016***	-0.014***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Institutional Ownership$_{Rep}$	-0.015	-0.011	-0.019	0.057
	[0.756]	[0.820]	[0.679]	[0.228]
Book to Market$_{Other}$	-0.079***	-0.079***	-0.076***	-0.066***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Leverage$_{Other}$	-0.124***	-0.125***	-0.121***	-0.101***
	[<0.001]	[<0.001]	[<0.001]	[0.002]
Old Directorship$_{Other}$	1.519***	1.521***	1.517***	1.972***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Same Industry	-0.075***	-0.074***	-0.076***	-0.049*
	[0.008]	[0.009]	[0.008]	[0.081]
Same Location	-0.077**	-0.077**	-0.075**	-0.085***
	[0.015]	[0.015]	[0.018]	[0.007]
Female Director	0.025	0.025	0.028	0.064*
	[0.495]	[0.495]	[0.448]	[0.090]
Director Age	-0.004**	-0.004**	-0.004**	0.001
	[0.032]	[0.030]	[0.044]	[0.696]
Director Ed Quals	0.007	0.007	0.008	0.005
	[0.575]	[0.623]	[0.549]	[0.699]
Director Total Board Seats	0.072***	0.072***	0.072***	0.071***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Constant	-1.486***	-1.484***	-1.584***	-1.507***
	[<0.001]	[<0.001]	[<0.001]	[<0.001]

Industry FE$_{Rep}$	Yes	Yes	Yes	Yes
Industry FE$_{Other}$	Yes	Yes	Yes	Yes
Observations	219,149	219,149	219,149	218,854
r2_p	0.0801	0.0802	0.0803	0.097

Notes: This table reports the estimation from a logistic regression of equation (2). The indicator variable (*Post Regulation*) is added and it takes on value of 1 if the reporting firm's proxy statement is issued after the effective date of SEC Release No. 33-9089 (i.e., on or after Feb 28, 2010). We also include the interaction term of *Adverse Event * Post Regulation* to examine whether non-disclosure of directorships declined more if the firm target of such disclosure experienced a negative event. In specification (1), adverse event of interest is an SEC-investigated restatement, while in specifications (2) and (3), it is securities litigation and bankruptcy, respectively. In the last specification (4), the indicator variable *Adverse Event* takes on value of 1 if the other firm experienced any of the three types of the negative events. The dependent variable is *Non_Disclosure* is an indicator variable that takes a value of 1 if the director's directorship at the other firm is not disclosed in the reporting firm's proxy statement, 0 otherwise. All other variables are defined in Appendix 2. The specification includes the reporting firm as well as other firm industry fixed effects. Standard errors are clustered at the firm level. Significance is denoted by ***, **, and * for 1%, 5%, and 10% respectively, using a two-tailed test.

Table 6 Likelihood of adding or dropping disclosure of directorships held at adverse-event firms

Panel A Dropping disclosure of directorships

VARIABLES	(1) SEC-Invest. Restatement	(2) Securities Litigation	(3) Bankruptcy	(4) Any Adverse Events
Adverse Event	-0.065	0.118***	0.645***	0.146***
	[0.400]	[0.000]	[0.000]	[0.000]
Post Regulation	-1.262***	-1.246***	-1.252***	-1.227***
	[0.000]	[0.000]	[0.000]	[0.000]
Adverse Event	0.024	-0.130**	-0.413***	-0.143**
× Post Regulation	[0.849]	[0.039]	[0.005]	[0.020]
Industry FE$_{Rep}$	Yes	Yes	Yes	Yes
Industry FE$_{Other}$	Yes	Yes	Yes	Yes
Observations	130,049	130,051	133,360	130,042
Pseudo R^2	0.0622	0.0626	0.0618	0.0625

Panel B Adding disclosure of directorships

VARIABLES	(1) SEC-Invest. Restatement	(2) Securities Litigation	(3) Bankruptcy	(4) Any Adverse Events
Adverse Event	-0.688***	-0.081*	-0.292	-0.662***
	[0.001]	[0.080]	[0.161]	[0.000]
Post Regulation	1.979***	2.016***	1.894***	1.891***
	[0.000]	[0.000]	[0.000]	[0.000]
Adverse Event	0.607***	-0.076	0.458**	0.585***
× Post Regulation	[0.007]	[0.298]	[0.045]	[0.000]
Industry FE$_{Rep}$	Yes	Yes	Yes	Yes
Industry FE$_{Other}$	Yes	Yes	Yes	Yes
Observations	32,506	32,505	33,361	32,504
Pseudo R^2	0.154	0.154	0.148	0.155

Notes: This table reports the estimation from a logistic regression of equation (2) where the dependent variable an indicator for a change in disclosure of a directorship from the prior period. Panel A included only observations where there was a disclosure of the directorship in the prior year. Hence, the dependent variable takes a value of one if the directorship at the other firm was dropped this year and zero otherwise. Panel B included only observations where there was no disclosure of the directorship in the prior year. Hence, the dependent variable takes a value of negative one if the directorship was newly added at the other firm this year and zero otherwise. the The indicator variable (*Post Regulation*) is added and it takes on value of 1 if the reporting firm's proxy statement is issued after the effective date of SEC Release No. 33-9089 (i.e., on or after Feb 28, 2010). We also include the interaction term of *Adverse Event * Post Regulation* to examine whether non-disclosure of directorships declined more if the firm target of such disclosure experienced a negative event. In specification (1), adverse event of interest is an SEC-investigated restatement, while in specifications (2) and (3), it is securities litigation and bankruptcy, respectively. In the last specification (4), the indicator variable *Adverse Event* takes on value of 1 if the other firm experienced any of the three types of the negative events. All other variables are defined in Appendix 2. Standard errors are clustered at the firm level. Significance is denoted by ***, **, and * for 1%, 5%, and 10% respectively, using a two-tailed test.

Table 7 Market reaction to appointments of directors with adverse-event directorships

Panel A Short-window returns around appointment of directors with adverse-event directorships

	# of observations	CAR (2 day)	CAR (3 day)
Disclosed	1,567	-0.001	0.001
Undisclosed	367	0.007	0.012
Differences		0.008***	0.011***
[P-value]		[0.001]	[<0.001]

Panel B Multivariate regressions

	(1)	(2)
VARIABLES	CAR (2 day)	CAR (3 day)
Non-Disclosure	0.008*	0.011*
	[0.069]	[0.058]
Financial Expert	0.000	0.000
	[0.905]	[0.975]
Director Age	-0.000	-0.000
	[0.983]	[0.971]
Director Ed Quals	-0.002	-0.002
	[0.129]	[0.185]
Director Total Board Seats	-0.000	0.000
	[0.966]	[0.975]
Female Director	0.001	0.000
	[0.807]	[0.914]
Other 8Ks	-0.001	0.004
	[0.829]	[0.343]
Constant	0.003	0.003
	[0.831]	[0.877]
Observations	1,924	1,924
R-squared	0.005	0.006

Notes: This table reports the estimation of the market reaction (CAR) to the appointment of directors who hold/held directorships at a firm with an adverse event and the effect of non-disclosure of such an event on the market reaction. The dependent variable *CAR* is calculated over two (−1, 0) or three day (−1, 1) window surrounding appointment announcement, using market-adjusted (value-weighted) model. *Non_Disclosure* is an indicator variable that takes a value of 1 if the director's directorship at the other firm is not disclosed in the reporting firm's proxy statement, 0 otherwise. All other variables are defined in Appendix 2. Standard errors are clustered at the firm level. Significance is denoted by ***, **, and * for 1%, 5%, and 10% respectively, using a two-tailed test.

Table 8 Labor market consequences of non-disclosure of adverse-event directorships

	All directorships		Pre-existing directorships only	New directorships only
	(1) Δ # Dirs	(2) Δ # Dirs	(3) Δ # Dirs	(4) Δ # Dirs
	t to $t+1$	t to $t+2$	t to $t+2$	t to $t+2$
Non-Disclosure	0.045***	0.081**	0.059**	-0.097
	[0.004]	[0.015]	[0.011]	[0.169]
$Size_{Rep}$	-0.000	0.002	-0.019***	-0.019
	[0.984]	[0.814]	[0.009]	[0.401]
Book to Market$_{Rep}$	-0.059***	-0.059**	-0.035*	0.124**
	[0.009]	[0.019]	[0.089]	[0.042]
Leverage$_{Rep}$	-0.098***	-0.129***	-0.025	0.02
	[<0.001]	[<0.001]	[0.431]	[0.820]
ROA$_{Rep}$	0.018	0.040	0.158**	-0.218
	[0.655]	[0.594]	[0.034]	[0.229]
Big Five$_{Rep}$	0.050**	0.124	0.007	0.178
Auditor$_{Rep}$	[0.033]	[0.112]	[0.839]	[0.148]
#Analysts$_{Rep}$	0.004	0.005	0.001	0.003
	[0.142]	[0.120]	[0.300]	[0.496]
Institutional	-0.112	-0.140	-0.019	0.043
Ownership$_{Rep}$	[0.176]	[0.244]	[0.571]	[0.699]
Female Director	0.026	0.070	-0.014	-0.065
	[0.363]	[0.192]	[0.675]	[0.647]
Director Age	-0.003*	-0.005	-0.000	-0.070***
	[0.083]	[0.139]	[0.929]	[0.000]
Director Ed Quals	-0.013	-0.027	0.002	0.090*
	[0.185]	[0.161]	[0.850]	[0.070]
Director Total	-0.034***	-0.065***	-0.062***	0.135***
Board Seats	[0.001]	[<0.001]	[<0.001]	[0.000]
Constant	-1.496***	-1.181***	-1.387***	-1.916
	[<0.001]	[0.001]	[<0.001]	[0.291]
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	19,547	17,216	13,010	20,282
R^2	0.078	0.114	0.293	0.119

Notes: This table reports results from OLS regression, with sample limited to directors with adverse-event directorships. *Non_Disclosure* equals 1 if an adverse-event directorship is undisclosed in the reporting firm's proxy statement, 0 otherwise. The dependent variable is change in the number of directorships held from t to t+1 (column 1), and from t to t+2 (column 2). Column (3) limits directorships to those that were held at time t (excludes new directorships) and column (4) includes only new directorships (excludes existing directorships) in the calculation of the dependent variable. All other variables are defined in Appendix 2. The specification includes reporting firm industry and year fixed effects. Standard errors are clustered at the firm level. Significance is denoted by ***, **, and * for 1%, 5%, and 10% respectively, using a two-tailed test.

Table 9 Shareholder voting and non-disclosure of directorships at adverse-event firms

Dependent variable	ISS Recommends Against	% Vote Against
Non-Disclosure	0.017	0.002
	[0.893]	[0.704]
Financial Expert	-0.556***	-0.011**
	[<0.001]	[0.047]
Director Age	-0.026***	0.000
	[0.001]	[0.921]
Director Ed Quals	-0.099	-0.001
	[0.136]	[0.700]
Director Total Board Seats	0.116***	0.003***
	[<0.001]	[0.003]
Female Director	-0.466**	0.007
	[0.018]	[0.352]
Constant	-0.556	0.171***
	[0.253]	[<0.001]
Year FE	Yes	Yes
Observations	7,807	7,723
R-squared	0.045	0.071

Notes: This table reports the estimation of the impact of non-disclosure on the likelihood of receiving an unfavorable recommendation from ISS and the percentage of votes cast against the director, for the subset of directors who hold or held a directorship at a firm with an adverse event. In the first specification estimated using a logistic model (1), *ISS Recommends Against* is an indicator variable equal to 1 if ISS either recommends against election of the director or withholds its recommendation, 0 otherwise. In the second model (2), *% Vote Against* is calculated as the total number of votes cast not in favor of electing the director listed on the ballot divided by the total number of votes cast. *Non_Disclosure* is an indicator variable that takes a value of 1 if the director's directorship at the other firm is not disclosed in the reporting firm's proxy statement, 0 otherwise. All other variables are defined in Appendix 2. The specification includes year fixed effects. Standard errors are clustered at the firm level. Significance is denoted by ***, **, and * for 1%, 5%, and 10% respectively, using a two-tailed test.