Strategic Management Journal
Strat. Mgmt. J., **37**: 1898–1918 (2016)
Published online EarlyView 6 September 2015 in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/smj.2427
Received 16 February 2014; *Final revision received 9 July 2015*

REASSESSING BOARD MEMBER ALLEGIANCE: CEO REPLACEMENT FOLLOWING FINANCIAL MISCONDUCT

DAVID GOMULYA[1]* and WARREN BOEKER[2]
[1] *Division of Strategy, Management, and Organization, Nanyang Business School, Nanyang Technological University, Singapore, Singapore*
[2] *Department of Management and Organization, Foster School of Business, University of Washington, Seattle, Washington, U.S.A.*

Research summary: *We examine how board members' reactions following financial misconduct differ from those following other adverse organizational events, such as poor performance. We hypothesize that inside directors and directors appointed by the CEO may be particularly concerned about their reputation following deceptive financial practices. We demonstrate that directors more closely affiliated with the CEO are more likely to reduce their support for the CEO following financial misconduct, increasing the likelihood of CEO replacement. Enactment of the Sarbanes-Oxley Act similarly alters governance dynamics by creating a greater expectation for sound corporate governance. We demonstrate our findings in U.S. public firms that restated their financial earnings during a 12-year period before and after the passage of Sarbanes-Oxley.*

Managerial summary: *Given past concerns about lack of oversight by boards of directors leading to firm financial misconduct, we examine how the relationship between directors and CEOs may be altered in the face of such misconduct. We argue that directors most closely tied to the CEO (inside board members and board members appointed by the CEO), typically the most supportive of the CEO, may become most concerned about their own reputation following financial misconduct. We find that CEOs receive less support from these directors, a finding in contrast to past studies demonstrating that such board members tend to shield CEOs following poor performance. These findings are accentuated following the passage of the Sarbanes-Oxley Act, which places greater responsibility on the CEO for the accuracy of financial reports.*

INTRODUCTION

Scandals at Enron, Fannie Mae, WorldCom, Adelphia Communications, and other firms underscore the prevalence with which managers manipulate and misrepresent the material positions of their organizations for their own gain. Despite calls for stiff penalties and clear consequences for financial fraud and misrepresentation, recent research has noted that executives in charge of these firms often bear little direct personal cost for financial fraud while shareholders amass large losses (Burks, 2010; Flanagan, Muse, and O'Shaughnessy, 2008). A *Fortune* magazine cover story on white-collar crime titled "They Lie, They Cheat, They Steal and They've been Getting Away with It for Too Long" (Leaf, 2002: 84) argued that managers in firms that engage in fraudulent financial reporting and misrepresentation face few negative repercussions for their actions. This consistent lack of meaningful sanction following financial misrepresentation has

Keywords: board member affiliation; CEO replacement; stigma; legitimacy; restatement
*Correspondence to: David Gomulya, S3-B1B-65, 50 Nanyang Avenue, Singapore 639798, Singapore. E-mail: dmgomulya@ntu.edu.sg
[Correction added on 05 October 2015, after first online publication: the Acknowledgement section has been updated]

both raised questions as to whether firm governance structures are effective in deterring managerial misconduct and disciplining illegal behavior and increased calls for more serious oversight of financial misconduct (Dash, 2010). As Aguilera and Jackson (2010: 534) noted: "While the origins of the financial crisis are a topic of great complexity, it is legitimate to ask what role corporate governance has played, if any?" Much of the motivation for the enactment of Sarbanes-Oxley legislation in 2002 (hereafter, SOX, 2002), for example, was to prevent further occurrence of financial fraud and increase expectations for sound corporate governance (Burks, 2010; Flanagan *et al.,* 2008).

Past research has examined the antecedents and consequences of questionable and potentially unethical business practices as they affect individuals and organizations (Greve, Palmer, and Pozner, 2010; Hirsch and Pozner, 2005). Research focused specifically on financial misrepresentation has argued that deceptive actions by firms can stigmatize organizational members (Devers *et al.,* 2009; Link and Phelan, 2001; Wiesenfeld, Wurthmann, and Hambrick, 2008) and that such stigma may arise when a firm's illegitimate actions cause stakeholders to form a collective perception that the organization and its members are deeply flawed and discredited (Link and Phelan, 2001; Wiesenfeld *et al.,* 2008). Financial fraud and misrepresentation can trigger these attributions, so that those seeking to assign blame for the misconduct often transfer their attributions of stigma and blame to individuals associated with the organization (Rider, Negro, and Roberts, 2011; Semadeni *et al.,* 2008), thus affecting the reputation of those individuals.

However, researchers' understanding of whether and how financial misrepresentation might influence the relationship between board members and the CEO remains limited. Specifically, past studies have not examined whether inside board members and those appointed by the current CEO (hereafter, appointed board members)—that is, those who are presumed to be more loyal to the chief executive—may tend to minimize the significance of financial misconduct and protect the CEO as predicted by agency theory (Jensen and Meckling, 1976), or whether they might take actions to protect their own reputations and the perceived legitimacy of the board (Cowen and Marcel, 2011; Suchman, 1995). To the extent that board members are concerned for their own reputation following disclosure of the firm's financial misconduct, then the passage of legal and regulatory remedies such as SOX, specifically aimed at preventing financial fraud and poor corporate governance, might instead prompt these board members to distance themselves from the CEO. Although the potential ramifications of SOX as an institutional intervention influencing subsequent board behaviors has been highlighted in the literature, the importance of understanding its effect has been little studied (Pfarrer *et al.,* 2008b; Withers, Hillman, and Cannella, 2012). This dearth is also reflected in the limited amount of research focused on investigating the effect of institutional changes on corporate governance (Aguilera and Jackson, 2010; Westphal and Zajac, 2013).

Drawing from concepts that help explain and extend our understanding of the actions of board members, such as stigma by association, this study examines how key aspects of the governance process, including board affiliation and regulatory intervention, influence the probability of chief executive replacement following financial misconduct. These behaviorally-based perspectives can help better explain outcomes that may differ from those suggested by under-socialized governance theories, especially agency theory (Dalton *et al.,* 2007; Westphal and Zajac, 2013). We hypothesize that financial misrepresentation and the passage of SOX may each alter the customary relationship between the CEO and inside and appointed board members—particularly the tendency of inside and appointed board members to reduce the probability of CEO replacement.

We study financial misrepresentation because it represents a visible, specific form of organizational misconduct that has the clear potential to stigmatize members of the board of directors of an organization (Desai, Hogan, and Wilkins, 2006; Devers *et al.,* 2009; Flanagan *et al.,* 2008; Karpoff, Lee, and Martin, 2008). This study thus offers an opportunity to examine the interplay between individual self-interest on the part of board members as well as normative assumptions surrounding their fiduciary role in the oversight and monitoring of the firm. Specifically, our study examines financial misrepresentation that occurs when firms are found to have misrepresented their earnings and are subsequently required to restate their financial position, thereby acknowledging that financial misrepresentation has occurred (Flanagan *et al.,* 2008; U.S. GAO, 2002, 2006). Recent research focused on top management and board changes (Arthaud-Day *et al.,* 2006; Gomulya and Boeker,

DOI: 10.1002/smj

2014; Harris and Bromiley, 2007) has investigated the consequences of restatements for organizations but not the research question that we ask here, which centers on how the relationship between inside and appointed board members and their chief executive may be altered by a reputation-damaging event as well as how this effect may vary before and after a regulatory change. We examine these questions in the context of public firms in the United States over a 12-year period from 1995 to 2006, prior to and following the enactment of SOX.

Our results first confirm past findings from agency- and corporate-governance research that, under typical conditions, a greater proportion of inside and appointed board members reduces the probability of CEO replacement (Deutsch, 2005). However, following an earnings restatement, the support for the CEO from inside and appointed board members weakens significantly and this weakening effect also occurs following the passage of SOX. These findings suggest that, following events that could challenge the legitimacy of the firm's governance structure, inside and appointed board members may be more concerned about how they are perceived, and as suggested by the concept of stigma by association, such directors may prefer to distance themselves from the CEO. The main contributions of this study include highlighting and reinforcing the growing notion that the effects of corporate governance may actually be more nuanced, and are critically contingent on specific factors inside and outside the firm (Aguilera *et al.,* 2008; Dalton *et al.,* 2007). Our study points to the manner in which the use of various well-established concepts such as stigma by association and legitimacy can complement the predominant agency view of firm governance.

THEORY

As an illegitimate action that violates institutionalized norms and values in society, financial misrepresentation can stigmatize a firm and its members, causing stakeholders and outside observers to perceive the focal firm as unsound and discredited (Arthaud-Day *et al.,* 2006; Devers *et al.,* 2009; Harris and Bromiley, 2007; Link and Phelan, 2001; Wiesenfeld *et al.,* 2008). Misrepresentation of the financial position of the firm both fractures shared societal norms that hold deception as unacceptable (Tetlock, 2002) and undermines the trust of the public and investors. Financial misconduct stigmatizes top managers of the firm because stakeholders perceive that the firm's top management has substantial control and a considerable role in the financial misrepresentation (Devers *et al.,* 2009). This perception of controllability is a product of the belief that fraud requires a conscious decision by individuals within the organization to purposely mislead shareholders and other organizational stakeholders. Individuals within the organization are seen to have made calculated, intentional decisions to provide misleading financial information that incorrectly portrays the material financial condition of the firm. Misrepresentations of financial information involve intentional decisions to mislead investors and the public (Agrawal, Jaffe, and Karpoff, 1999), and can often be traced to specific actors within the firm, thus providing highly visible targets for blame.

When a firm experiences a scandal, stakeholders outside the firm want to understand what happened. Because the firm's top managers and executives are seen as directly responsible for restatements, the removal of these leaders may aid in the firm's recovery process (Devers *et al.,* 2009; Wiesenfeld *et al.,* 2008). While outside observers may feel that the entire top management of a firm is to some extent responsible, specific blame is most likely to be directed toward organizational members in charge of the firm (Wiesenfeld *et al.,* 2008) since individuals who occupy higher status positions are likely to attract more attention and represent more salient targets for blame (Fiske, 1980). Recent work by Graffin *et al.* (2013) demonstrated that high-status individuals face more scrutiny and are held to higher standards of conduct, and that observers consider the same misconduct as more deliberate when committed by elites. Similarly, Fragale *et al.* (2009) argued that audiences assume that the behaviors of high-status individuals are more intentional, and Giordano (1983) has argued that elites are held to higher standards so that even relatively small violations of norms result in heightened expectations of accountability for their behaviors. Since the CEO is the most important material and symbolic representative of the organization—and has been viewed in past studies as having the greatest responsibility and authority for the firm's actions (Carpenter, Geletkanycz, and Sanders, 2004)—it is likely that the CEO will be held responsible for the occurrence of a financial restatement and may be replaced as a result.

DOI: 10.1002/smj

Stigma by association

Researchers have demonstrated evidence of stigma transfer or "stigma by association" (Kulik, Bainbridge, and Cregan, 2008; Neuberg *et al.,* 1994) through which ties to stigmatized actors may also stigmatize others. Goffman's (1963) original description of stigma by association characterized it as a taint afflicting those associated with stigmatized individuals. Studies of individual stigma have demonstrated that even arbitrary associations can transfer stigma—for example, sitting next to an obese person can result in lower expectations as to whether a candidate would be acceptable for a job (Hebl and Mannix, 2003). Work by Pontikes, Negro, and Rao (2010) on the blacklisting of actors, directors, and screenwriters during the "Red Scare" in Hollywood from 1945 to 1960 demonstrated how stigma can be transferred through the mere association with a stigmatized individual and that such association can limit the ability of the focal individual to find future employment. Evidence of stigma by association can also be observed at the organizational level, where research has shown that firms linked to organizations filing bankruptcy (Gove and Janney, 2004) or firms in the same industry in which other firms are restating earnings (Da Dalt and Margetis, 2004) experience negative market reactions.

Greve *et al.* (2010) argued that illegitimate organizational actions can be thought to create a stain that can threaten the identity of organizational members. In this manner, stigma can be transferred from organizations to individuals within the organization (Wiesenfeld *et al.,* 2008), and past work has described how the stigmatization created by financial misrepresentation can spread from the firm to its employees, damaging their reputation and value in the external labor market (Collins *et al.,* 2009; Fama, 1980; Semadeni *et al.,* 2008). When violations of norms or rules are seen as more directly attributable to specific individuals, they are likely to be stigmatized, thus restricting the stigma to these individuals and helping buffer the identity of the firm and its members (Pozner, 2008). In the case of financial misrepresentation, those seeking to assign blame for the organization's problems may shift stigmatization from the overall organization to the top managers responsible for running the firm (Elsbach, 2006; Wiesenfeld *et al.,* 2008). In more extreme cases, this form of stigma by association may also spread to other members of the organization. Employees at all levels of Enron, for example, have probably experienced some degree of stigmatization from their association with the firm, and past studies have demonstrated that individuals who cite Enron on their resumes may elicit negative associations for potential employers, clients, and executive recruiters (Anders, 2004).

Board independence

Past studies have demonstrated that board independence has a key influence on whether the board is likely to protect or replace the CEO (Finkelstein, Hambrick, and Cannella, 2009). Board independence has been argued to depend on the extent to which board members are outside directors (Fama and Jensen, 1983) and whether they have been appointed by the current CEO (Park, Westphal, and Stern, 2011). Past empirical studies have generally confirmed that boards with more members appointed by the current CEO or more inside members are likely to protect and buffer the CEO from replacement or dismissal (Deutsch, 2005; Finkelstein *et al.,* 2009; Krause and Semadeni, 2014). Particularly in cases where the firm is facing competitive challenges, such as poor performance, appointed or inside board members can act to protect the CEO from replacement by attributing blame for the firm's problems to the external environment, changes in regulation, or changes in competitive conditions.

We argue that such a relationship may work very differently in cases involving events such as financial misconduct. Unlike in the case of poor firm performance, the potentially fraudulent nature of financial misrepresentation requires deliberate intent by the members of top management to engage in illicit actions (Devers *et al.,* 2009)—something that is more difficult for inside and appointed board members to discount or ignore. Misrepresentation of the financial condition of the firm, and subsequent requirements by the Security Exchange Commission (SEC) to restate earnings, may directly compromise the reputation of the board of directors, since these actions indicate that the board may have failed to fulfill its monitoring and oversight responsibilities.

Appointed board members and CEO replacement

Board members appointed by the current CEO have been viewed in past research as loyal to the chief

DOI: 10.1002/smj

executive, with these loyalties and personal ties limiting their ability to act independently (Fredrickson, Hambrick, and Baumrin, 1988). Board members appointed by the CEO are likely to be those whom the chief executive feels comfortable working with, explicitly approves of, and holds in high regard, feelings that are likely reciprocated (Boeker, 1992; Wade, O'Reilly, and Chandratat, 1990). Past studies have demonstrated that chief executives face a much lower likelihood of replacement or termination in cases where there is a greater number or proportion of the board appointed by the current CEO (Finkelstein *et al.,* 2009). Empirical work examining the replacement of the CEO has demonstrated how these "loyal" board members are especially reluctant to replace the chief executive who appointed them since the appointment itself served as a signal of confidence, affiliation, and trust on the part of the CEO (Park *et al.,* 2011).

Given their likely loyalty to the CEO, appointed directors may be perceived as being lax monitors of the actions of the CEO. This may lead to skepticism regarding the effectiveness of their role in the corporate governance process, especially following financial misconduct. As a consequence, appointed board members may be more concerned than nonappointed board members about damage to their own reputation in the eyes of stakeholders, owners, and the public following the disclosure of financial misconduct. Given that appointed board members may be viewed as having been too beholden to the CEO, they may be more likely to be discredited following financial misconduct.

Following financial misconduct, pressure on board members may alter the effect of board loyalty on chief executive replacement. Cowen and Marcel (2011) demonstrated how firms could become especially concerned about negative reputational effects occurring as the result of their own board members being affiliated with firms that had been forced to restate their earnings. In their study, firms that did not commit financial misconduct themselves, but only shared directors with a restating firm, were concerned about how their legitimacy might be perceived by their stakeholders due to ties to these "reputationally-damaged" board members and were found to be more likely to dismiss compromised board members (Cowen and Marcel, 2011).

To the extent that board members are perceived as being more closely affiliated with the CEO, outside observers are more likely to evaluate them similarly, and there is likely to be a greater degree of stigma by association for appointed directors as compared to nonappointed directors. CEO-appointed directors in restating firms may consequently have greater motivation following a misconduct to distance themselves from the CEO and reduce this stigma by association (Goffman, 1963; Link and Phelan, 2001; Semadeni *et al.,* 2008). Threats of stigma by association may lead appointed directors to decrease their support for the CEO more dramatically than nonappointed directors, especially considering that the latter are usually more likely to critically assess the CEO. This more dramatic shift in the support of appointed board members may lead to a greater relative decrease in support for the CEO in firms with boards composed of a greater proportion of appointed directors. As a result, while support for the CEO is likely to decline for all board members following financial misrepresentation, the change is argued to be greater for appointed members. Given the reduced motivation of appointed board members to help the CEO under such conditions, we argue that the influence of appointed board members should weaken following financial misconduct.

Hypothesis 1: Financial misconduct by the firm weakens the tendency of board members appointed by the incumbent CEO to reduce the probability of CEO replacement.

Inside board members and CEO replacement

Similar to the case of CEO-appointed board members, inside board members may also be seen as providing less active oversight and monitoring. Given that stakeholders, owners, and the public may perceive inside directors as being less effective at monitoring and governing the firm than outside directors—especially following the disclosure of financial misrepresentation—these directors may believe that distancing themselves from the CEO may limit the adverse effects of stigma by association (Goffman, 1963). Given the occurrence of financial misconduct, which may be seen as more intentional and purposeful, inside board members may find it especially difficult to defend the CEO, and may also be less able or motivated to do so.

Contestation

Contestation of the position of the CEO by inside board members may also be more likely in cases

DOI: 10.1002/smj

where financial misconduct has occurred. The contestation argument (Ocasio, 1994; Ocasio and Kim, 1999; Ridge, Aime, and White, 2014) portrays firm elites as consisting of political coalitions that may shift when crises emerge (Putnam, 1976; Ridge *et al.,* 2014; Selznick, 1957). In such cases, inside board members may contest the position of the chief executive since they comprise a prominent and likely pool of possible successors (Greve and Mitsuhashi, 2007; Joseph, Ocasio, and McDonnell, 2014; Shen and Cannella, 2002). To the extent that inside board members consider themselves potentially well-positioned successors to the CEO, they may be more prone to critically appraise and critique the actions of the CEO following the revelation of financial misconduct. Under such conditions, the incentive of inside board members to distance themselves from the CEO, along with the possibility that they will contest the CEO's position, may weaken the typically negative relationship between the presence of inside board members and CEO replacement. This decrease in support for CEO by inside directors should also be greater than that of outside directors, who are likely to be more vigilant to begin with. As such, following financial misconduct, CEO support should experience a greater relative decline in firms with a greater proportion of inside directors.

Hypothesis 2: Financial misconduct by the firm weakens the tendency of inside board members to reduce the probability of CEO replacement.

Effects of board characteristics following the Sarbanes-Oxley Act

High-profile accounting scandals at Enron, WorldCom, and other corporations sparked public concern about managerial misdeeds and lax board oversight, leading to the passage of the Sarbanes-Oxley Act of 2002. The purpose of SOX is to minimize the occurrence of financial fraud that might jeopardize the interests of investors. Specifically, SOX aims to achieve this by, among others, redefining the duties and requirements of the firm's board as well as their compensation, audit and nominating committees (Klein, 2003). For example, Section 404 requires greater transparency in financial reporting and strong internal corporate governance to prevent any occurrence of fraud. Section 807 in SOX also enables regulators to file criminal charges against any individual who defrauds or attempts to defraud shareholders of publicly traded companies. As a result, SOX has created greater clarity around expectations for honest and unbiased disclosure of the financial condition of the firm and expectations for sound and effective corporate monitoring and governance by the board of directors.

As Wintoki (2007) argued, the provisions in SOX and the new exchange regulations go beyond just specifying the number of outside and inside directors; they impose a much higher level of director monitoring on all firms. Under these requirements, the audit committee must meet with auditors separately from managers and firms must have fully independent nominating and compensation committees (Coates, 2007). Linck, Netter, and Yang (2009) found that SOX led to broad-based changes in the roles of boards of directors, with post-SOX boards larger and more independent. They also found that board committees met more often post-SOX and directors were more likely to be lawyers/consultants, financial experts, and retired executives, and less likely to be current executives.

Given these provisions of SOX, we argue that it exerts an effect similar to that of a restatement, though one that results from the passage of a jurisdiction-wide institutional change rather than a firm-specific event (such as a restatement). The focus of SOX on effective corporate governance likely increases the level of concern and scrutiny directed at boards, whose monitoring and oversight may be perceived as inadequate. Further, as provisions within Sarbanes-Oxley emphasize expectations for sound corporate governance, the ability of appointed or inside board members to craft credible arguments that excuse or shift blame from the CEO weakens, making it more difficult to defend the CEO. Following the passage of SOX, appointed or inside directors—already perceived as being less vigilant—will be under even greater scrutiny related to the effectiveness of their monitoring and oversight roles (Goranova and Ryan, 2014; Hillman *et al.,* 2011).

If appointed and inside board members perceive that their reputation is threatened, then SOX may alter the relationship between these board members and their CEO. Given that SOX increases both stakeholders' expectations of sound corporate governance and the penalty of failing to do so, it may cause these board members to be more cognizant of the ways their reputation might be affected. Accordingly, inside and appointed board members may be less likely to defend the CEO following the passage

DOI: 10.1002/smj

of SOX. Thus, although SOX is a jurisdiction-wide and not firm-specific change, we posit that it also weakens the likelihood that inside or appointed board members would reduce CEO replacement. This weakening effect should be more visible when the inside or appointed directors are present in a greater proportion.

Hypothesis 3: The passage of SOX weakens the tendency of board members appointed by the CEO to reduce the probability of CEO replacement.

Hypothesis 4: The passage of SOX weakens the tendency of inside board members to reduce the probability of CEO replacement.

METHODS

Data

Following past literature that examines financial misrepresentation, we focus on restatements that involved the disclosure of earnings manipulation (Arthaud-Day *et al.,* 2006; Harris and Bromiley, 2007; Hennes, Leone, and Miller, 2008). These restatements are reported by the U.S. Government Accountability Office (U.S. GAO, 2002, 2006), and include restatements that are due to earning manipulations (e.g., misuse of facts, deliberate misinterpretation of accounting rules, or fraud as broadly defined by GAO), and not normal corporate activity or accounting policy changes. To ensure that we examine cases that are serious enough to lead to stigmatization, and similar to past work in this area, we focus specifically on restatements that are related to revenue and expense recognitions, which are open to subjective accruals by managers and more likely to be manipulated, and that are downward revisions of previously inflated earnings (Collins *et al.,* 2009; Kinney and McDaniel, 1989; Palmrose, Richardson, and Scholz, 2004). We excluded non-U.S.-based firms to avoid any differences in cultural or financial reporting requirements (Pfarrer *et al.,* 2008a). We also excluded firms that restated more than once to avoid any confounding issues resulting from multiple restatements. We divided the time frame in which we examined the restatements into two periods, before and after the enactment of Sarbanes-Oxley Act on July 30, 2002. Our data started in 1995 since that was the earliest date that information was available through the SEC online website. Our data collection continued until June 2006, when the GAO ended its data collection, giving us four years of post-SOX data.

As explained in the measure for our dependent variable below, we excluded firms where the CEO succession event could not count as replacement due to merger or acquisition or other stated reasons. Following this exclusion and as the number of restatement cases increases over time, our final sample consisted of 500 restatement cases with 35 percent being pre-SOX data (176 restating firms before SOX out of 500) and 65 percent post-SOX data (324 restating firms after SOX out of 500).[1]

Matched sample

To control for potential endogeneity, we employed a matched-pair sampling design that serves as a quasi-experiment and is particularly suitable for examining phenomena with a low base rate of occurrence, as in the case of restatements (c.f. Arthaud-Day *et al.,* 2006; Harris and Bromiley, 2007). Similar to other studies of restatement events (e.g., Agrawal *et al.,* 1999; Arthaud-Day *et al.,* 2006; Kinney, Palmrose, and Scholz, 2004; Richardson, Tuna, and Wu, 2003), we matched each restating firm with a firm that did not issue any restatement. We identified matching firms from the same four-digit SIC code, the same time period, and with similar total asset size. To further ensure equivalency, we tested the similarity of the two groups in terms of asset, revenue, stockholders' equity, net income, and return on assets. We found no statistically significant difference between the groups on any of these dimensions. Therefore, we are confident that our procedure yielded appropriate matches. After a similar exclusion for the CEO successions that could not count as replacement, we ended up with 481 matching or nonrestating firms with a breakdown that is virtually identical to that for the restating firms: 37 percent pre-SOX data (180 nonrestating cases before SOX out of 481) and 63 percent post-SOX data (301 nonrestating cases after SOX out of 481). In total, we have 981 observations (500 restating firms and 481 matching firms) with 51 percent being restatement cases (500 out of 981) and 49 percent nonrestatement

[1]Past studies have indicated that finding a statistically significant moderating effect using an unbalanced sample is more difficult than using a balanced sample (Aguinis, 1995; Aguinis *et al.,* 2005), making our results conservative.

ones (481 out of 981). In terms of the pre- and post-SOX observation periods, we have 36 percent pre-SOX cases (356 out of 981 with 176 being restating firms and 180 being matching firms) and 64 percent post-SOX cases (625 out of 981 with 324 restating and 301 matching). All these observations are before any list-wise deletion that results in a slightly smaller final sample, which is indicated in the regression tables.

Measures

Dependent variable

The dependent variable in all hypotheses is *CEO replacement.* We measured this variable at two points in time, within both one and two years of the restatement, and operationalized it as a binary variable with a value of 1 when the incumbent CEO is replaced within this time frame and 0 otherwise. To ensure that we focused on cases where the CEO was replaced and did not retire or move onto the board, we carefully examined each occurrence of CEO replacement using several sources. First, we downloaded news from Lexis-Nexis pertaining to the focal firm from one year prior to the year of the CEO succession event to one year after the year of the CEO succession event. This three-year window allows us to capture more comprehensively any news pertaining to the CEO's replacement. We also examined SEC filings in which the succession of the CEO was mentioned. Second, following past studies (Finkelstein *et al.,* 2009; Shen and Cannella, 2002), we removed any cases in which the CEO departure was characterized as having resulted from death, health issues, from taking up a CEO position in another firm, or if the CEO was an interim CEO in the first place. Following past studies, we also excluded cases in which the succession was a result of a long-term plan for a retirement or when the CEO continued to stay in the firm, typically as chairman as such an event reflects a lingering presence of the CEO and does not represent a purposeful replacement (Finkelstein *et al.,* 2009). Finally, while some of the replacements were preceded by mentions of poor performance, we did not restrict our sample of replacements to only those firms experiencing poor performance since past studies have shown that even high-performing firms commit financial misconduct and replace their CEOs (Harris and Bromiley, 2007; Mishina *et al.,* 2010). Altogether, we are confident that our careful analyses captured relevant CEO replacements.

Independent variables

We measured *Restatement* using a binary variable that takes the value of 1 if a firm restates and 0 otherwise. *Proportion of inside board* members was measured as the proportion of non-CEO board members who are also executives of the firm. *Proportion of board appointed by CEO* was the proportion of board members appointed after the focal CEO was elected to the chief executive position. We operationalized the effect of SOX, "*Post-SOX,*" using a dummy variable that takes a value of 1 for the period after the passage of Sarbanes-Oxley Act on July 30, 2002.

Control variables

We also included a number of control variables in our models that potentially influence the effect of restatement and proportion of board members on CEO replacement. All these variables are measured in the year of restatement (or the year of the match for the nonrestating firms). *Firm age* was measured since founding while *firm size* was measured using firm revenue. We controlled for temporal variation by including year dummies with 1995 as the reference year. We controlled for firms' prior performance using return on asset *(ROA)* in the year of the restatement. Board characteristics such as *board size* and *average board tenure* were also controlled for. We controlled for the number of *business segments* a firm operates in as it might indicate CEO power. *CEO equity* was also controlled using the proportion of firm equity held by the CEO, while *CEO duality* using a binary variable that takes the value of 1 when the CEO is also the Chairman of the Board and 0 otherwise.

A restatement might also cause the departure of inside board members, outside board members, and audit board members (Arthaud-Day *et al.,* 2006; Marcel and Cowen, 2014). As these departures might provide an opportunity for scapegoating and could influence CEO replacement, we also controlled for these events. Following Arthaud-Day *et al.* (2006), we included three dummy variables for *replacement of outside directors, replacement of inside directors, and replacement of audit committee members,* each of which takes the value of 1 when there is a replacement of the respective

DOI: 10.1002/smj

board members between the restatement date and the CEO replacement, and 0 otherwise. As a robustness check, we also measured these variables using the actual count of how many of each type of board members were replaced. Finally, to control for the possibility that some blame for the restatement might be attributed to the CFO (Arthaud-Day *et al.,* 2006), we controlled for whether the CFO is replaced *(replacement of CFO)* following a restatement and included this covariate as a control.

Model and estimation

As our dependent variable, CEO replacement, is dichotomous, we estimated our models using logistic regression where the probability of CEO replacement *(Y = 1)* or nonreplacement *(Y = 0)* is predicted by the covariates, $\boldsymbol{X}$, through the following relationship where $\boldsymbol{\beta}$ is the column vector containing the estimated regression coefficients (Cohen *et al.,* 2002):

$$Y = exp\left(\beta' X\right) / \left(1 + exp\left(\beta' X\right)\right)$$

To reduce skewness and kurtosis, we log-transformed some variables (Cohen *et al.,* 2002). To check for potential multicollinearity, we calculated the Variance Inflation Factor (VIF) among the explanatory variables, which was less than 10 (Cohen *et al.,* 2002), and conditional index, which is less than 30 (Belsley, 1991).[2] In all regressions, we used robust standard error to minimize problems of heteroscedasticity. All analyses were done using *Stata version 11.*

RESULTS

In Table 1, we report the descriptive statistics for all the variables of interest. Several variables were mean-centered and/or logged to reduce potential multicollinearity (Cohen *et al.,* 2002); these transformed variables are noted in the table. For ease of exposition, the means and standard deviations of all variables are shown in their original metrics, prior to any transformations. After excluding cases where the CEO succession event did not count as replacement, we have a total of 981 observations. In the multivariate regressions, another 10 percent of the observations were dropped due to list-wise deletion.

To test the hypotheses, we begin by reporting the regression results in Table 2. As a CEO replacement can take place within one or two years from a restatement, Table 2 reports the findings across both windows with Models 1–3 reporting results where the CEO was replaced within one year from the restatement, and Models 4–6 for when replacement occurred within two years. Model 1 includes only the control variables. Model 2 introduces the main effect of restatement, SOX, and the proportion of inside and appointed directors. Model 3 adds all the interactions between the proportion of inside and appointed directors and restatement or SOX. We repeat this in Models 4–6, where Model 4 introduces only the controls, Model 5 adds the main effects, and Model 6 the interaction effects.

Across all of the models, we found that our control variables essentially confirmed past findings. Restatement significantly increases the probability of CEO replacement (Arthaud-Day *et al.,* 2006). The replacement of outside directors, audit committee members, and the CFO also increases the probability of CEO replacement. Firms with higher return on asset were less likely to replace their CEOs. Board tenure and CEO duality also decreased the probability of CEO replacement in some models, and year effects are significant in some cases, although no discernible trend was observed.

Hypothesis 1 predicted that financial misconduct by the firm would weaken the tendency of board members appointed by the incumbent CEO to reduce the probability of CEO replacement. While Model 3 indicates no significant effect on CEO replacement in the first year, Model 6 demonstrates marginal support for Hypothesis 1 for CEO replacement within two years of restatement. While the main effect of having a greater proportion of appointed directors reduces CEO replacement ($\beta = -0.26$, $p < 0.001$), confirming past studies on the effects of appointed directors, this effect is weakened in the case of restating firms ($\beta = 0.13$, $p < 0.10$) – although the interaction effect plot in Figure 1(a) later shows that this effect is significant at least at $p < 0.05$ for many firms (more below). These findings indicate that the negative effect of appointed boards on CEO replacement is weakened, as hypothesized, when the firm has suffered a reputation-damaging event such as a financial restatement.

[2]Stata automatically drops any variable that cause serious multicollinearity. None of the variables we entered were dropped by Stata.

DOI: 10.1002/smj

Table 1. Descriptive statistics

No	Covariates	Mean	Stdev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	CEO replacement	0.14	0.35																
2	Firm age[a]	36.40	30.28	−0.16															
3	Firm size[a, b]	2,442.06	7,998.85	−0.09	0.31														
4	Year 1996	0.02	0.15	−0.01	−0.09	−0.06													
5	Year 1997	0.01	0.12	0.05	−0.05	0.00	−0.02												
6	Year 1998	0.02	0.14	0.08	−0.06	−0.04	−0.02	−0.02											
7	Year 1999	0.06	0.23	−0.04	0.00	−0.04	−0.04	−0.03	−0.04										
8	Year 2000	0.12	0.33	0.05	−0.09	−0.11	−0.06	−0.04	−0.05	−0.09									
9	Year 2001	0.07	0.26	−0.04	−0.05	0.00	−0.04	−0.03	−0.04	−0.07	−0.10								
10	Year 2002	0.08	0.27	0.07	0.02	−0.06	−0.05	−0.04	−0.04	−0.07	−0.11	−0.08							
11	Year 2003	0.16	0.36	0.02	0.03	−0.07	−0.07	−0.05	−0.06	−0.11	−0.16	−0.12	−0.13						
12	Year 2004	0.15	0.36	−0.01	−0.02	0.02	−0.07	−0.05	−0.06	−0.10	−0.16	−0.12	−0.12	−0.18					
13	Year 2005	0.22	0.42	−0.06	0.14	0.24	−0.08	−0.06	−0.08	−0.13	−0.20	−0.15	−0.16	−0.23	−0.23				
14	Year 2006	0.07	0.25	−0.07	0.03	0.02	−0.04	−0.03	−0.04	−0.06	−0.10	−0.07	−0.08	−0.11	−0.11	−0.14			
15	ROA[a]	−0.14	0.73	−0.14	0.13	0.33	0.03	0.00	−0.04	0.01	−0.11	−0.01	0.00	−0.08	0.05	0.10	0.03		
16	Board size	7.70	2.69	−0.07	0.22	0.56	0.03	−0.03	−0.07	−0.11	−0.07	−0.03	−0.05	−0.06	0.14	0.12	0.03	0.19	
17	Average board tenure	7.94	5.63	−0.09	0.26	0.05	0.04	−0.01	0.01	−0.02	−0.03	−0.01	0.09	0.00	−0.04	0.02	−0.03	0.11	0.03

No	Covariates	Mean	Stdev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
18	Business segments	2.28	1.64	−0.07	0.21	0.32	−0.11	−0.08	−0.08	0.00	−0.01	0.01	0.02	0.04	0.11	−0.06	0.05	0.11	0.27
19	CEO equity[a]	0.08	0.14	0.00	−0.16	−0.30	0.10	0.06	0.04	−0.15	−0.03	−0.08	0.02	0.10	0.00	−0.01	−0.03	−0.05	−0.26
20	CEO duality	0.61	0.49	−0.03	0.04	0.10	0.02	0.06	0.01	0.02	−0.14	−0.01	−0.02	0.09	−0.04	0.05	−0.01	0.11	0.00
21	Replacement of outside board	0.43	0.50	0.18	−0.06	0.07	−0.02	0.02	0.09	0.02	0.00	0.07	−0.01	−0.05	−0.03	−0.01	0.00	−0.09	0.16
22	Replacement of inside board	0.19	0.39	0.09	−0.04	−0.03	0.01	0.05	0.08	−0.02	0.01	0.00	0.04	0.00	−0.01	−0.04	−0.02	−0.14	0.05
23	Replacement of audit committee	0.43	0.50	0.15	−0.05	0.00	−0.03	0.03	0.05	0.01	0.02	0.05	0.00	0.01	0.00	−0.06	−0.02	−0.11	−0.03
24	Replacement of CFO	0.23	0.42	0.29	−0.16	−0.02	0.00	0.07	0.02	−0.01	−0.05	−0.01	−0.02	0.00	0.04	0.01	−0.01	0.00	−0.07
25	Post-SOX	0.64	0.48	−0.07	0.16	0.17	−0.21	−0.16	−0.19	−0.32	−0.49	−0.37	−0.07	0.33	0.32	0.40	0.20	0.08	0.17
26	Restatement (binary)	0.51	0.50	0.26	−0.31	−0.01	−0.03	0.00	0.00	−0.04	0.00	−0.01	0.01	−0.05	−0.02	0.03	0.08	−0.04	−0.05
27	Restatement (severity)	0.03	0.06	0.30	−0.38	−0.23	−0.02	0.04	0.04	−0.01	0.05	0.01	0.05	−0.03	0.00	−0.09	0.06	−0.14	−0.12
28	Proportion of inside board[a]	0.11	0.14	−0.01	0.02	−0.07	−0.03	−0.02	−0.05	−0.09	−0.12	−0.03	0.00	0.12	0.12	0.03	−0.07	−0.05	0.14
29	Proportion of board appointed by CEO[a]	0.49	0.29	−0.12	0.03	0.02	0.04	0.06	−0.02	0.04	−0.09	−0.07	−0.03	0.03	−0.03	0.06	0.03	0.07	0.06

DOI: 10.1002/smj

Table 1. Continued

No	Covariates	17	18	19	20	21	22	23	24	25	26	27	28
18	Business segments	0.03											
19	CEO equity[a]	−0.11	−0.16										
20	CEO duality	−0.10	0.00	0.23									
21	Replacement of outside board	−0.10	0.06	−0.11	−0.08								
22	Replacement of inside board	−0.04	0.01	−0.07	−0.05	0.28							
23	Replacement of audit committee	−0.10	0.01	−0.03	−0.06	0.40	0.26						
24	Replacement of CFO	−0.15	−0.04	−0.02	−0.01	0.14	0.10	0.09					
25	Post-SOX	−0.01	0.10	0.05	0.07	−0.07	−0.03	−0.05	0.04				
26	Restatement (binary)	−0.21	−0.12	0.09	0.08	0.04	0.05	0.07	0.23	0.02			
27	Restatement (severity)	−0.20	−0.16	0.07	0.04	0.10	0.11	0.11	0.29	−0.07	0.76		
28	Proportion of inside board[a]	0.05	0.04	0.13	0.12	0.00	0.05	−0.04	−0.11	0.18	0.03	0.01	
29	Proportion of board appointed by CEO[a]	−0.19	−0.02	0.33	0.23	−0.08	−0.05	−0.08	−0.07	0.06	−0.04	−0.08	0.09

[a] Variable is logged.
[b] Divided by 106.
Means and standard deviations are reported in the original metric; correlations whose absolute values are greater than 0.07 are significant at $p < 0.05$.
Except for binary variables, all variables are mean-centered.

Hypothesis 2 predicted that financial misconduct by the firm would weaken the tendency of inside board members to reduce the probability of CEO replacement. This hypothesis is supported in Model 3, which demonstrates that, while the main effect of having proportionally more inside directors generally reduces CEO replacement ($\beta = -0.25$, $p < 0.05$), this effect is weakened in the case of restating firms ($\beta = 0.29$, $p < 0.01$). In this case, this effect seems more salient in Model 3 (representing one year after the restatement), rather than two years following the restatement, as reported in Model 6.

Hypothesis 3 predicted that the passage of SOX would weaken the tendency of board members appointed by the CEO to reduce CEO replacement. Our results in Models 3 and 6 demonstrate support for these hypotheses, ($\beta = 0.26$, $p < 0.01$ in Model 3 and $\beta = 0.11$, $p < 0.1$ in Model 6). Likewise, Hypothesis 4 predicted that the passage of SOX would weaken the tendency of inside board members to reduce CEO replacement. Results in Model 6 confirms that the effect is weakened as demonstrated by the positive interaction between proportion of inside board members and SOX ($\beta = 0.15$, $p < 0.05$). Overall, our hypotheses receive broad supports across the different models.

Given that the interaction effect in a logistic model could depend on not only the coefficient of the interaction terms, but also on the coefficients and values of other variables (Hoetker, 2007; Wiersema and Bowen, 2009), we also calculated interaction effects by plotting the effect along with the associated z-statistics in Figure 1 based on the significant interactions in the full models. To conserve space, we present Figure 1 as a table that includes several figures depending on the interaction effect being examined. Each figure has two vertical y-axes. The y-axis on the left hand side indicates whether or not the interaction effect is indeed positive, while the y-axis on the right hand side whether or not the effect is significant. To facilitate interpretation, we draw horizontal lines that indicates the two-sided 95 percent confidence interval (z-statistic = ±1.96). Any z-statistics (indicated by hollow triangles) above the upper horizontal line (z-statistic = +1.96) suggest a two-sided 95 percent-level significance for a particular observation. The x-axis denotes the range of our observations. These graphs provide answers to two questions around our findings: (1) Do the firms in our sample demonstrate a positive moderating effect of restatement or SOX, as denoted by the circles?

Table 2. Moderating effect of restatement and SOX (logistics regression)

	DV = +1 year			DV = +2 years		
Covariates	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Firm age	−0.20+	0.04	0.02	−0.00	0.19+	0.19+
	(0.13)	(0.15)	(0.15)	(0.11)	(0.12)	(0.12)
Firm size	−0.02	−0.05	−0.06	−0.01	−0.04	−0.05
	(0.07)	(0.07)	(0.07)	(0.05)	(0.06)	(0.06)
ROA	−1.39	−2.52+	−3.88*	−11.88***	−10.29**	−10.86**
	(1.79)	(1.89)	(2.09)	(3.64)	(3.53)	(3.60)
Board size	−0.00	0.02	0.03	−0.04	−0.02	−0.02
	(0.05)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
Board tenure	−0.03	−0.02	−0.04+	−0.04*	−0.04*	−0.05**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Business segments	−0.06	−0.03	−0.02	−0.01	0.00	−0.00
	(0.08)	(0.08)	(0.08)	(0.06)	(0.06)	(0.06)
CEO equity	−0.02	−0.01	0.01	−0.03	−0.03	−0.02
	(0.05)	(0.06)	(0.07)	(0.04)	(0.05)	(0.05)
CEO duality	−0.09	−0.09	−0.22	−0.27+	−0.30+	−0.33+
	(0.23)	(0.25)	(0.25)	(0.19)	(0.20)	(0.21)
Replacement of outside directors	0.61**	0.64**	0.64**	0.40*	0.41*	0.43**
	(0.25)	(0.26)	(0.26)	(0.22)	(0.22)	(0.23)
Replacement of inside directors	−0.04	−0.07	−0.06	0.24	0.18	0.20
	(0.29)	(0.29)	(0.30)	(0.20)	(0.21)	(0.21)
Replacement of audit committee members	0.45*	0.38+	0.36+	0.57**	0.47*	0.46*
	(0.24)	(0.25)	(0.25)	(0.22)	(0.22)	(0.23)
Replacement of CFO	1.50***	1.29***	1.29***	1.24***	1.18***	1.16***
	(0.23)	(0.24)	(0.25)	(0.18)	(0.19)	(0.19)
Restatement		1.53***	1.80***		1.02***	1.07***
		(0.29)	(0.34)		(0.22)	(0.22)
Proportion of directors appointed by CEO		−0.12 *	−0.34***		−0.10 *	−0.26***
		(0.05)	(0.10)		(0.04)	(0.08)
Proportion of inside directors		−0.01	−0.25 *		0.04	−0.09
		(0.05)	(0.12)		(0.04)	(0.08)
SOX		−1.38*	−1.31*		−1.49**	−1.42*
		(0.69)	(0.73)		(0.62)	(0.64)
Proportion of directors appointed by CEO × restatement			0.09			0.13+
			(0.11)			(0.08)
Proportion of inside directors × restatement			0.29**			0.04
			(0.12)			(0.08)
Proportion of directors appointed by CEO × SOX			0.26**			0.11+
			(0.10)			(0.08)
Proportion of inside directors × SOX			−0.00			0.15*
			(0.10)			(0.08)
Constant	−2.55***	−3.38***	−3.81***	−1.64**	−2.06**	−2.10**
	(0.81)	(0.82)	(0.84)	(0.71)	(0.69)	(0.70)
Year fixed effect	Included	Included	Included	Included	Included	Included
Observations	881	881	881	881	881	881
Log likelihood	−292.82	−271.02	−263.37	−396.68	−378.07	−373.21
Pseudo-R^2	0.162	0.224	0.246	0.161	0.200	0.220
Wald chi-square	112.85***	156.43***	171.73***	151.98***	189.21***	198.94***

***p < 0.001; **p < 0.01; *p < 0.05; +p < 0.1
Standard errors in parentheses.

DOI: 10.1002/smj

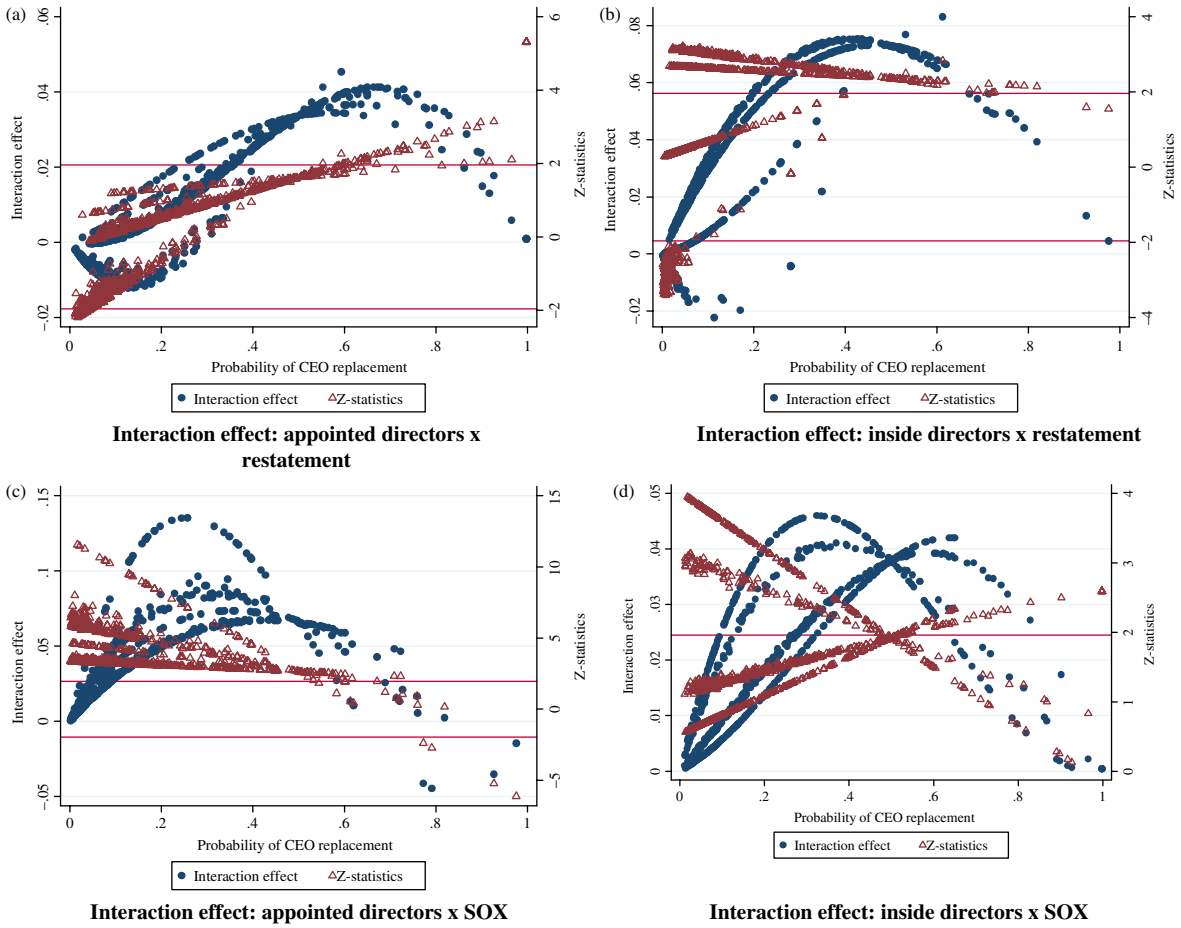

Figure 1. Interaction effect: (a) Appointed directors × restatement. (b) Inside directors × restatement. (c) Appointed directors × SOX. (d) Inside directors × SOX

and (2) Is the interaction effect significant as represented by the triangles? Overall, most of the firms in the sample demonstrated positive interaction effects that are significant. We discuss these in more detail below.

Figure 1(a) depicts the interaction between the proportion of appointed directors and restatement. Here, the interactions remain positive and significant especially in the second half of the outcome range, that is, when the probability of CEO replacement is greater than 0.6. Figure 1(b) plots the interaction between proportion of inside directors and restatement. As can be seen, the majority of the cases lie above the upper limit of the confidence interval (z-statistic >+1.96) and the interaction effects are indeed positive as indicated by the left y-axis.

Figure 1(c) plots the interaction between proportion of appointed directors and SOX. Almost all of the cases lie above the upper limit of the confidence interval and the interaction effects are positive. The interaction between the proportion of inside directors and SOX is shown in Figure 1(d), where the interactions are positive and significant across practically the whole entire range of observations. Altogether, the plots of these interaction effects graphically illustrate support for the conclusions of our regression results at least at $p < 0.05$, providing further support for our hypotheses.

Finally, we also plot how the probability of CEO replacement changes across different values of the proportion of inside or appointed directors contingent on the corresponding moderating variables, restatement or SOX. Figure 2 illustrates that for a nonrestating firm, a board consisting of a greater proportion of appointed board members decreases the probability of CEO replacement by 80 percent (from 0.23 to 0.05) as the proportion of appointed

DOI: 10.1002/smj

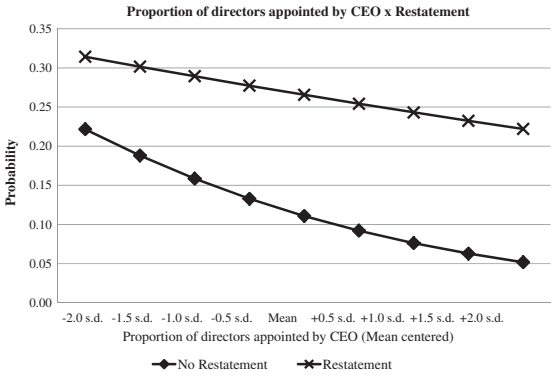

Figure 2. Moderating effect of restatement on the effect of proportion of appointed directors

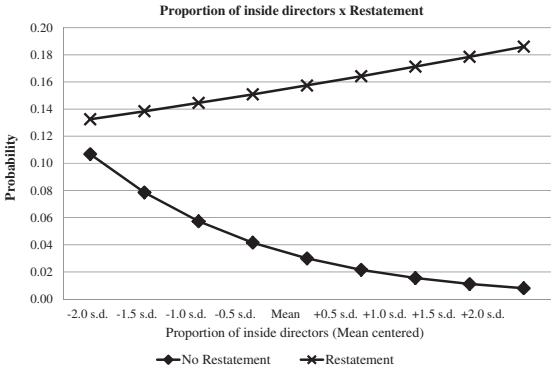

Figure 3. Moderating effect of restatement on the effect of proportion of inside directors

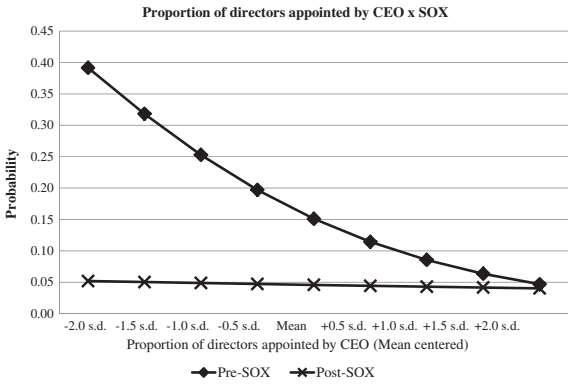

Figure 4. Moderating effect of Sarbanes-Oxley on the effect of proportion of appointed directors

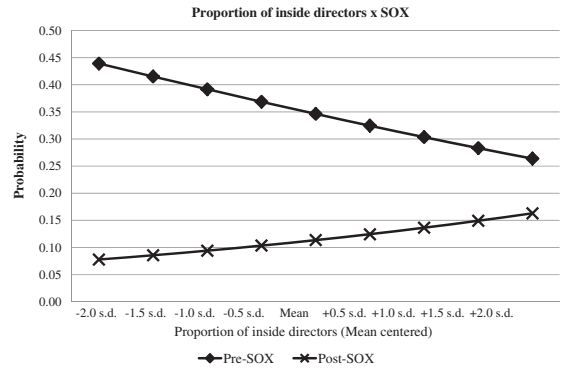

Figure 5. Moderating effect of Sarbanes-Oxley on the effect of proportion of inside directors

directors changes from 2 standard deviations below the mean to 2 standard deviations above. However, following a restatement, the decrease becomes much more modest, dropping only 28 percent (from 0.32 to 0.23). Similarly, Figure 3 depicts the interaction between the proportion of inside directors and restatement. As can be seen, for a nonrestating firm, having more inside board members helps reduce the probability of CEO replacement. However, in cases where the firm has restated its earnings, the effects of insiders is actually the opposite, increasing the probability of CEO replacement. Both plots support the counterintuitive notion that firms with a greater proportion of inside or appointed directors will have weaker tendency to support the CEO, if not the opposite, following financial misconduct.

Figures 4 and 5 show the moderating effect of SOX on these board structures. Figure 4 indicates that having a greater proportion of appointed board members substantially reduces CEO replacement before SOX (the probability decreases from 0.40 to 0.05 over a ±2 SD range), but this change practically disappears following SOX. In Figure 5, a greater proportion of inside directors decreases the probability of CEO replacement before SOX while actually increasing it after SOX, with SOX having a negative main effect on the probability of CEO replacement. Altogether, Figures 2–5, combined with our regression results and interaction effect plots in Figure 1(a–d), demonstrate broad and consistent support for our hypotheses that while the presence of inside and appointed board members generally decreases the probability of CEO replacement, their effects weaken and even reverse following a restatement and the passage of SOX.

Robustness checks

We further examined and confirmed the consistency of our findings through a number of additional robustness checks. First, we measured board replacement using the actual count of how many

DOI: 10.1002/smj

outside board, inside board, and audit committee members were being replaced, with our results remaining consistent. Second, to further examine whether the change in the effects of board members' characteristics is moderated by SOX, we calculated pair-wise correlation between the proportion of inside and appointed board members and CEO replacement during the first half of 2002 (before the passage of SOX on July 30, 2002), and during the second half of 2002 (after the passage of SOX). Our results demonstrated that this pair-wise correlation was negative for the first half with correlations ranging from -0.16 to -0.23, depending on whether the board was examined in terms of its proportion of inside or appointed members and whether the replacement was measured one or two years after restatement. Our findings indicate that boards with a greater proportion of inside and appointed members decreases CEO replacement before SOX, while increasing it after SOX with correlations ranging from 0.02 to 0.19. Such a demonstrated step-function change further corroborates our earlier analyses and demonstrates that the moderating effect of SOX does indeed reflect a change driven by the passage of SOX and not by other changes in the environment.

Third, we examined the effect of a number of potential control variables not included in our earlier models: (1) As the Audit Committee plays a central role in ensuring proper monitoring of firm financial statements, we examined whether or not the presence of insiders, especially the CEO, in the audit committee could influence the dynamics between the board and the CEO replacement. We collected data on whether or not the CEO sits in the audit committee as well as the number of insiders who sit in the audit committee. (2) We examined whether the external auditor was from any of the large public accounting firms during this period,[3] and whether or not the external auditors from the restatement year were replaced in the following one or two years. (3) Since ownership characteristics might influence board dynamics and the probability of CEO replacement, we also controlled for the percentage of equity owned by the blockholders (entities that own more than 5% of shares), and the percentage owned by institutional investors, both of whom are more likely to operate independently of CEO pressure (Kang, 2008; Marcel and Cowen, 2014). Finally, (4) we examined whether or not a CEO sits in the nomination committee, where his or her involvement might further influence the extent of board members' actions, their degree of stigmatization, and their incentive to replace the CEO.

We then entered these additional controls (CEO presence in the audit committee, number of insiders in the audit committee, public accounting firm background of the external auditor, replacement of external auditor, percentage of equity owned by blockholders, percentage owned by institutional investors, and CEO presence in the nomination committee) into our earlier models. Our results demonstrated that none of our earlier conclusions changed. CEO presence in the nomination committee was highly collinear with the other variables and was dropped automatically by the Stata program when entered together. None of the remaining additional controls significantly influenced CEO replacement with the exception of institutional equity ownership, which marginally ($p < 0.10$) demonstrated a positive effect on CEO replacement two years after the restatement. Given their lack of significance and for the sake of parsimony, we did not include these additional controls in our reported results.

Next, since our dependent variable, CEO replacement, may take place after we end our observation (i.e., be right censored), we estimated our models using continuous-time event history analysis that can account for right censoring. In this estimation model, we analyzed one observation per subject (Cleves *et al.,* 2008), and predicted the effect of board structure at the time of restatement (along with other covariates and moderators) on the likelihood of CEO replacement. We chose a proportional hazard rate model that uses Weibull parametric specification since this model yielded the lowest AIC for our data and thus suggests the best fit.[4] This event history analysis requires information about when the CEO replacement occurs. We obtained this fine-grained data by

[3]In our sample, large public accounting firms consist of Arthur Andersen, BDO International, Deloitte & Touche, Ernst & Young, KPMG, and PricewaterhouseCoopers.

[4]This parametric model is theoretically more efficient than a semi-parametric model, such as the Cox model in utilizing information (Allison, 1984; Cleves *et al.,* 2008; Cox, 1972). Also, it yielded a lower Akaike Information Criterion (AIC), that is, it provided a better goodness of fit for our data when compared to other models, including the Cox model. This Weibull model gives comparable AIC to the Gompertz model, which yields similar results. We also ran separate analyses using the nonparametric Cox model (1972) that yielded similar conclusions.

measuring the length of time between the dates of restatement and CEO replacement. Nonreplacements are treated as censored observations. The results show that our conclusion remains supported with this alternative estimation model (the results are available in Appendix S1).

Additionally, it is possible that the proportion of inside or appointed directors, restatement, and CEO replacement may be related through a different causal mechanism. Specifically, it might be argued that firms with a greater proportion of inside or appointed directors are more likely to commit a restatement, in turn, leading to a higher likelihood of CEO replacement. We believe this alternative mechanism is less likely for a number of reasons. First, if our results are due to unobserved factors or endogeneity, then this concern has been minimized by our use of matching firms and a quasi-experimental setting. Second, these alternative explanations would require a positive relationship between the proportion of inside or appointed directors and restatement. We show no evidence of this in our sample, which indicates that the correlation between the proportion of inside and appointed directors and restatement is not significant ($p > 0.1$). Additionally, using the Kolmogorov-Smirnov (KS) two-sample equality of distribution test, the distribution of these directors across the restating and matching firms does not differ significantly. Altogether, our data show no significant indication that more insiders or appointed directors necessarily lead to a higher probability of restatement.

We also examined past studies to see if the proportion of inside or appointed directors had been shown to influence the probability of restatement. Harris and Bromiley (2007) showed in their robustness tests that board independence did not significantly influence the probability of restatement. In a related vein, Mishina *et al.* (2010) demonstrated that the proportion of outsiders on the board did not significantly predict the probability of the firm committing corporate illegality, such as environmental violations, anticompetitive actions, false claims, and fraud. In sum, past studies have not indicated any support for the relationship between independent directors and reputation-damaging actions, such as financial misconduct.[5]

[5]We thank an anonymous reviewer for suggesting that we examine this potential alternative mechanism.

Additional analyses

Further, while the categorization between the restating and matching firms allow us to distinguish the level of scrutiny or perceived scrutiny that is directed toward the directors, we further extend this measure by calculating the severity of the restatement among the restating firms. We measure the severity of the restatement as the total decrease in net income of the focal firm following restatement divided by the firm revenue for the year prior to the restatement announcement. We then entered this continuous severity measure in lieu of the restatement dummy, that is, each restating firm is assigned its severity measure while the nonrestating firm by definition is assigned a value of 0. We then ran the previous analyses using this measure and all our conclusions remain supported.

Finally, we also examine the potential interaction between restatement and the passage of SOX. We found that committing a restatement following SOX increases CEO replacement and that this effect is mostly felt within one year after a restatement. While this particular interaction does not involve board characteristics, which is the main focus of this study, this finding indicates the higher penalty that SOX imposes upon financial misconduct.

Overall, our hypotheses receive broad and consistent supports after various robustness checks and analyses, demonstrating that while the presence of inside and appointed board members generally decreases CEO replacement, their effects weaken and can even reverse following a restatement and the passage of SOX.

DISCUSSION

The primary objective of this research was to understand how key aspects of the governance process, including board affiliation and regulatory intervention, influence the probability of chief executive replacement following a reputation-damaging event and a change in institutional regulation. We found that inside and appointed board members decrease their support for the CEO to a greater extent than other directors following financial misconduct by the firm. Similarly, we found that the passage of SOX lessened the tendency of inside and appointed board members to reduce the probability of CEO replacement. The perception of weaker

DOI: 10.1002/smj

corporate governance in firms with a greater proportion of such board members appears to be exacerbated following SOX. Importantly, our results also provide supports for the more established view that having more appointed and inside board members reduce the probability of CEO replacement in cases other than restatement and prior to SOX.

Our findings demonstrate how our existing understanding of the relationship between nonindependent board members (appointed and insiders) and the chief executive may not hold in certain contexts. A key contribution of this study to the corporate governance literature is in highlighting and reinforcing the growing notion that there is no universal model for corporate governance; rather, the choice and effect of different aspects of corporate governance is contingent upon a number of factors both internal and external to the organization. This contextualized interpretation of corporate governance is also in line with the notion that the study of corporate governance needs to move more towards an open systems logic, giving greater attention to the broader environmental context, such as the regulatory environment examined here (Desender *et al.,* 2013, 2014). By utilizing financial misconduct as a stigmatizing event and SOX as a change in regulatory norms, our findings demonstrate that CEOs who may have accumulated greater power and influence through board appointments or by having insiders serving on the board may face weaker support when the reputation of these directors is questioned. These findings provide an interesting extension to the intuitive notion established in past research that inside or appointed directors are more likely to protect the CEO from threat of replacement under most circumstances (Deutsch, 2005). More importantly, these insights help us better understand the complex set of factors surrounding corporate governance as a function of multiple, interrelated sets of actors and institutions, which goes beyond a simple dichotomy such as outsider versus insider.

Relatedly, this study also responds to and reinforces recent call to investigate the role of corporate governance following a financial crisis (Aguilera and Jackson, 2010). Our findings underscore how CEOs with more inside and appointed board members on their boards may, ironically, suffer from the presence of these individuals. Past work has shown evidence that negative information is more salient and has a stronger effect than positive information and is perceived by others to be more accurate and diagnostic (Rozin and Royzman, 2001). In our setting, a negative event, such as financial misrepresentation, is likely to draw increased attention to those in the organization seen as responsible for its occurrence. These findings also highlight some of the potentially negative effects of social ties and affiliations. Most past work on social outcomes of affiliations has highlighted the positive aspects of connections to powerful others by signaling status and contributing to the focal individual's social capital (Burt, 2011). Conversely, this research illustrates a context where the negative effects of affiliation may become salient through the mechanisms of a formal role, that is, board membership.

These results extend past work that has demonstrated that the status of the stigmatized individual can magnify the effects of stigma by association (Pontikes *et al.,* 2010), so that individuals who occupy higher status positions attract more attention and represent more salient targets, thus amplifying the effects of stigma by association (Kulik *et al.,* 2008). The dominant position of inside and appointed board members may create a perception to external stakeholders that the firm's governance structure is relatively weak, and the occurrence of a restatement is likely to further reinforce this view, creating greater pressure from investors and other stakeholders to replace the CEO. By demonstrating how the CEO, who is likely powerful and influential, can actually become more likely to be replaced, our findings illustrate an interesting and countervailing effect of that influence following a reputation-damaging event.

The effect of a regulatory intervention such as SOX provides further support for our argument that the effects of board composition on CEO replacement depend on the potential loss of legitimacy that the firm and the board face. The moderating effect of SOX suggests that the relationship between inside or appointed directors and CEO replacement might be more complex than merely the balance of power between the CEO and the board. The passage of SOX, as a natural experiment, highlights the effects of an institutional change on board members' behaviors, especially on those of appointed directors who have little or no incentive to contest the CEO. These results highlight some critical limitations of agency arguments while also introducing a more behaviorally oriented perspective on corporate governance and board legitimacy, especially on

DOI: 10.1002/smj

the role of institutions in which actors are socially situated (Pfarrer *et al.,* 2008b; Westphal and Zajac, 2013; Withers *et al.,* 2012).

A critical limitation to our study is the generalizability of our findings to other institutional environments outside the United States. Different governance and policy structures could moderate the power dynamics between the CEO and the board. In countries such as Germany, in which other stakeholder groups are represented on the board (Fiss and Zajac, 2004), the board may be much more effective at disciplining the CEO. Also, while a financial misrepresentation is likely to cause stigma—and indeed our findings support this notion—like past studies, we did not directly measure that stigma had occurred (Hebl and Mannix, 2003).

Future research into financial malfeasance and managerial replacement should continue to investigate the primary question of who controls the succession process. The results of this study go beyond past research that has shown chief executive replacement to be a political process; instead, we draw attention to the concerns of board members to appear desirable, proper, or appropriate, which may result in inside and appointed board members demonstrating less support for the CEO. Outcomes around firm performance and shareholder wealth have already led to a severe restructuring of governance and oversight following the Sarbanes-Oxley Act. We hope this study spurs future research to focus on better understanding the interaction between organizational influence and legitimacy in firm actions.

ACKNOWLEDGEMENTS

We would like to thank the Editor and two anonymous Reviewers for their patience and guidance during the review process. We would also like to acknowledge the thoughtful contributions made by Harry Bowen, Melissa Ganus, Jerry Goodstein, Henrich Greve, Thomas Jones, Eugene Kang, Suresh Kotha, Margarethe Wiersema, Batia Wiesenfeld, seminar participants at Nanyang Business School SMO Division, as well as the financial assistance of Nanyang Business School and the Burke Center for Innovation and Entrepreneurship at the University of Washington. We thank Jenny Effendi, Scott Tham, and Julian Toh for assistance with the data collection. An earlier version of this paper won the 2011 McGraw-Hill/Irwin Distinguished Paper Award.

REFERENCES

Agrawal A, Jaffe JF, Karpoff JM. 1999. Management turnover and governance changes following the revelation of fraud. *Journal of Law and Economics* **XLII**: 309–342.

Aguilera RV, Filatotchev I, Gospel H, Jackson G. 2008. An organizational approach to comparative corporate governance: costs, contingencies, and complementarities. *Organization Science* **19**(3): 475–492.

Aguilera RV, Jackson G. 2010. Comparative and International Corporate Governance. *Academy of Management Annals* **4**(1): 485–556.

Aguinis H. 1995. Statistical power problems with moderated multiple regression in management research. *Journal of Management* **21**(6): 1141–1158.

Aguinis H, Beaty JC, Boik RJ, Pierce CA. 2005. Effect size and power in assessing moderating effects of categorical variables using multiple regression: a 30-year review. *Journal of Applied Psychology* **90**(1): 94–107.

Allison PD. 1984. *Event History Analysis: Regression for Longitudinal Event Data*. Sage: Newbury Park, CA.

Anders G. 2004. Moving on after Enron means being humble and minimizing role. *Wall Street Journal* 27 July: B1.

Arthaud-Day ML, Certo ST, Dalton CM, Dalton DR. 2006. A changing of the guard: executive and director turnover following corporate financial restatements. *Academy of Management Journal* **49**(6): 1119–1136.

Belsley DA. 1991. A guide to using the collinearity diagnostics. *Computer Science in Economics and Management* **4**: 33–50.

Boeker W. 1992. Power and managerial dismissal: scapegoating at the top. *Administrative Science Quarterly* **37**: 400–421.

Burks JJ. 2010. Disciplinary measures in response to restatements after Sarbanes-Oxley. *Journal of Accounting and Public Policy* **29**(3): 195–225.

Burt RS. 2011. *Neighbor Networks: Competitive Advantage Local and Personal*. Oxford University Press: New York.

Carpenter MA, Geletkanycz MA,, Sanders WG. 2004. Upper echelons research revisited: antecedents, elements, and consequences of top management team composition. *Journal of Management* **30**(6): 749–778.

Cleves MA, Gould WW, Gutierrez RG, Marchenko YU. 2008. *An Introduction to Survival Analysis Using Stata* (2nd edn). Stata Pressas: College Station, TX.

Coates JC. 2007. The goals and promise of the Sarbanes-Oxley Act. *Journal of Economic Perspectives* **21**(1): 91–116.

Cohen J, Cohen P, West SG, Aiken LS. 2002. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences* (3rd edn). Lawrence Erlbaum Associates Inc.: Mahwah, NJ.

Collins D, Masli A, Reitanga AL, Sanchez JM. 2009. Earnings restatements, the Sarbanes-Oxley Act, and

the disciplining of chief financial officers. *Journal of Accounting, Auditing, and Finance* **24**(1): 1–34.
Cowen AP, Marcel JJ. 2011. Damaged goods: board decisions to dismiss reputationally compromised directors. *Academy of Management Journal* **54**(3): 509–527.
Cox DR. 1972. Regression models and life-tables. *Journal of the Royal Statistical Society. Series B Methodological* **34**(2): 187–220.
Da Dalt P, Margetis S. 2004. The intra-industry contagion effect from earnings restatements. In *Eastern Finance Association Meetings*. Mystic, CT.
Dalton DR, Hitt MA, Certo ST, Dalton CM. 2007. The fundamental agency problem and its mitigation. *Academy of Management Annals* **1**(1): 1–64.
Dash E. 2010. Federal report fault banks on huge bonuses. *New York Times* 22 July.
Desai H, Hogan CE, Wilkins MS. 2006. The reputational penalty for aggressive accounting: earnings restatements and management turnover. *Accounting Review* **81**(1): 83–112.
Desender KA, Aguilera RV, Crespi R, Garc M. 2013. When does ownership matter? Board characteristics and behavior. *Strategic Management Journal* **34**: 823–842.
Desender KA, Aguilera RV, Lopezpuertas-Lamy M, Crespi R. 2014. A clash of governance logics: foreign ownership and board monitoring. *Strategic Management Journal*, DOI: 10.1002/smj.2344.
Deutsch Y. 2005. The impact of board composition on firms' critical decisions: a meta-analytic review. *Journal of Management* **31**(3): 424–444.
Devers CE, Dewett T, Mishina Y, Belsito CA. 2009. A general theory of organizational stigma. *Organization Science* **20**(1): 154–171.
Elsbach KD. 2006. *Organizational Perception Management*. Lawrence Erlbaum Associates Inc.: Mahwah, NJ.
Fama EF. 1980. Agency problems and the theory of the firm. *Journal of Political Economy* **88**(2): 288–307.
Fama EF, Jensen MC. 1983. Separation of ownership and control. *Journal of Law and Economics* **26**(2): 301–325.
Finkelstein S, Hambrick DC, Cannella AA. 2009. *Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards*. Oxford University Press: Oxford, UK.
Fiske ST. 1980. Attention and weight in person perception: the impact of negative and extreme behavior. *Journal of Personality and Social Psychology* **38**(6): 889–906.
Fiss PC, Zajac EJ. 2004. The diffusion of ideas over contested terrain: the (non)adoption of a shareholder value orientation among German firms. *Administrative Science Quarterly* **49**: 501–534.
Flanagan DJ, Muse LA, O'Shaughnessy KC. 2008. An overview of restatement activity in the United States. *International Journal of Commerce and Management* **18**(4): 363–381.
Fragale AR, Rosen B, Xu C, Merideth I. 2009. The higher they are, the harder they fall: the effects of wrongdoer status on observer punishment recommendations and intentionality attributions. *Organizational Behavior and Human Decision Processes* **108**(1): 53–65.
Fredrickson J, Hambrick DC, Baumrin S. 1988. A model of CEO dismissal. *Academy of Management Review* **13**: 255–270.
Giordano PC. 1983. Sanctioning the high-status deviant: an attributional analysis. *Social Psychology Quarterly* **46**(4): 329–342.
Goffman E. 1963. *Stigma: Notes on the Management of Spoiled Identity*. Prentice Hall: Englewood Cliffs, NJ.
Gomulya D, Boeker W. 2014. How firms respond to financial restatement: CEO successors and external reactions. *Academy of Management Journal* **57**(6): 1759–1785.
Goranova M, Ryan LV. 2014. Shareholder activism: a multidisciplinary review. *Journal of Management* **40**(5): 1230–1268.
Gove S, Janney JJ. 2004. The effect of director linkages to stigmatized firms: market reaction to bankruptcy. Unpublished manuscsript. University of Dayton.
Graffin SD, Bundy J, Porac JF, Wade JB, Quinn DP. 2013. Falls from grace and the hazards of high status: the 2009 British MP expense scandal and its impact on parliamentary elites. *Administrative Science Quarterly* **58**(3): 313–345.
Greve HR, Mitsuhashi H. 2007. Power and glory: concentrated power in top management teams. *Organization Studies* **28**(8): 1197–1221.
Greve HR, Palmer D, Pozner J. 2010. Organizations gone wild: the causes, processes, and consequences of organizational misconduct. *Academy of Management Annals* **4**(1): 53–107.
Harris J, Bromiley P. 2007. Incentives to cheat: the influence of executive compensation and firm performance on financial misrepresentation. *Organization Science* **18**(3): 350–367.
Hebl MR, Mannix LM. 2003. The weight of obesity in evaluating others: a mere proximity effect. *Personality and Social Psychology Bulletin* **29**(1): 28–38.
Hennes K, Leone A, Miller B. 2008. The importance of distinguishing errors from irregularities in restatement research: the case of restatements and CEO/CFO turnover. *Accounting Review* **83**: 1487–1519.
Hillman AJ, Shropshire C, Certo ST, Dalton DR, Dalton CM. 2011. What I like about you: a multilevel study of shareholder discontent with director monitoring. *Organization Science* **22**(3): 675–687.
Hirsch P, Pozner J. 2005. To avoid surprises, acknowledge the dark side: illustrations from securities analysts. *Strategic Organization* **3**(2): 229–238.
Hoetker G. 2007. The use of logit and probit models in strategic management research: critical issues. *Strategic Management Journal* **28**: 331–343.
Jensen MC, Meckling WH. 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* **3**(4): 305–360.
Joseph J, Ocasio W, McDonnell MH. 2014. The structural elaboration of board independence: executive power, institutional logics, and the adoption of CEO-only board structures in US corporate governance. *Academy of Management Journal* **57**(6): 1834–1858, DOI: 10.5465/amj.2012.0253.
Kang E. 2008. Director interlocks and spillover effects of reputational penalties from financial reporting

fraud. *Academy of Management Journal* **51**(3): 537–555.
Karpoff JM, Lee DS, Martin GS. 2008. The cost to firms of cooking the books. *Journal of Financial Economics* **43**: 581–611.
Kinney WP Jr, McDaniel LS. 1989. Characteristics of firms correcting previously reported quarterly earnings. *Journal of Accounting and Economics* **11**: 71–93.
Kinney WR, Palmrose Z-V, Scholz S. 2004. Auditor independence, non-audit services, and restatements: was the U.S. government right? *Journal of Accounting Research* **42**(3): 561–588.
Klein A. 2003. Likely effects of stock exchange governance proposals and Sarbanes-Oxley on corporate boards and financial reporting. *Accounting Horizons* **17**(4): 343–355.
Krause R, Semadeni M. 2014. Last dance or second chance? Firm performance, CEO career horizon, and the separation of board leadership roles. *Strategic Management Journal* **35**(6): 808–825.
Kulik CT, Bainbridge HTJ, Cregan C. 2008. Known by the company we keep: stigma-by-association effects in the workplace. *Academy of Management Review* **33**(1): 216–230.
Leaf C. 2002. White-collar criminals: they lie, they cheat, they steal, and they've been getting away with it for too long. *Fortune* 18 March: 60.
Linck JS, Netter JM, Yang T. 2009. The effects and unintended consequences of the Sarbanes-Oxley Act on the supply and demand for directors. *Review of Financial Studies* **22**(8): 3287–3328.
Link BG, Phelan JC. 2001. Conceptualizing stigma. *Annual Review of Sociology* **27**: 363–385.
Marcel JJ, Cowen AP. 2014. Cleaning house or jumping ship? Understanding board upheaval following financial fraud. *Strategic Management Journal* **35**(6): 926–937.
Mishina Y, Dykes BJ, Block ES, Pollock TG. 2010. Why "good" firms do bad things: the effects of high aspirations, high expectations, and prominence on the incidence of corporate illegality. *Academy of Management Journal* **53**(4): 701–722.
Neuberg SL, Smith DM, Hoffman JC, Russell FJ. 1994. When we observe stigmatized and "normal" individuals interacting: stigma by association. *Personality and Social Psychology Bulletin* **20**: 196–209.
Ocasio W. 1994. Political dynamics and the circulation of power: CEO succession in U.S. industrial corporations. *Administrative Science Quarterly* **39**(2): 285–312.
Ocasio W, Kim H. 1999. The circulation of corporate control: selection of functional backgrounds of new CEOs in large U.S. manufacturing firms, 1981–1992. *Administrative Science Quarterly* **44**(3): 532–562.
Palmrose Z-V, Richardson VJ, Scholz S. 2004. Determinants of market reactions to restatement announcements. *Journal of Accounting and Economics* **37**(1): 59–89.
Park SH, Westphal JD, Stern I. 2011. Set up for a fall: the insidious effects of flattery and opinion conformity toward corporate leaders. *Administrative Science Quarterly* **56**(2): 257–302.
Pfarrer MD, Decelles KA, Smith KG, Taylor MS. 2008a. After the fall: reintegrating the corrupt organization. *Academy of Management Review* **33**(3): 730–749.
Pfarrer MD, Smith KG, Bartol KM, Khanin DM, Zhang X. 2008b. Coming forward: the effects of social and regulatory forces on the voluntary restatement of earnings subsequent to wrongdoing. *Organization Science* **19**(3): 386–403.
Pontikes E, Negro G, Rao H. 2010. Stained red: a study of stigma by association to blacklisted artists during the "red scare" in Hollywood, 1945 to 1960. *American Sociological Review* **75**(3): 456–478.
Pozner J-E. 2008. Stigma and settling up: an integrated approach to the consequences of organizational misconduct for organizational elites. *Journal of Business Ethics* **80**(1): 141–150.
Putnam RD. 1976. The Comparative Study of Political Elite*s*. Prentice Hall: Englewood Cliffs, NJ.
Richardson S, Tuna I, Wu M. 2003. Capital market pressures and earnings management: the case of earnings restatements. Working paper, The University of Pennsylvania, Wharton, PA.
Rider CI, Negro G, Roberts PW. 2011. Organizational failure, educational prestige, and the diminution of cumulative career advantage. Working paper, Emory University: Atlanta, GA.
Ridge JW, Aime F, White MA. 2014. When much more of a difference makes a difference: social comparison and tournaments in the CEO's top team. *Strategic Management Journal* **36**(4): 618–636.
Rozin P, Royzman EB. 2001. Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Bulletin* **5**(4): 296–320.
Sarbanes P, Oxley MG. 2002. Sarbanes-Oxley Act. U.S. Federal Law, USA.
Selznick P. 1957. *Leadership in Administration*. Peterson: Evanston, IL.
Semadeni M, Cannella AA, Fraser DR, Lee DS. 2008. Fight or flight: managing stigma in executive careers. *Strategic Management Journal* **29**: 557–567.
Shen W, Cannella AA. 2002. Power dynamics within top management and their impacts on CEO dismissal followed by inside succession. *Academy of Management Journal* **45**(6): 1195–1206.
Suchman MC. 1995. Managing legitimacy: strategic and institutional approaches. *Academy of Management Review* **20**(3): 571–610.
Tetlock PE. 2002. Social functionalist frameworks for judgment and choice: intuitive politicians, theologians, and prosecutors. *Psychological Review* **109**(3): 451–471.
U.S. Government Accountability Office. 2002. *Financial Statement Restatements: Trends, Market Impacts, Regulatory Responses, and Remaining Challenges*. Washington, DC.
U.S. Government Accountability Office. 2006. *Financial Restatements: Update of Public Company Trends, Market Impacts, and Regulatory Enforcement Activities*. Washington, DC.

DOI: 10.1002/smj

Wade J, O'Reilly CA III, Chandratat I. 1990. Golden parachutes: CEOs and the exercise of social influence. *Administrative Science Quarterly* **35**: 587–603.
Westphal JD, Zajac EJ. 2013. A behavioral theory of corporate governance: explicating the mechanisms of socially situated and socially constituted agency. *Academy of Management Annals* **7**(1): 607–661.
Wiersema MF, Bowen HP. 2009. The use of limited dependent variable techniques in strategy research: issues and methods. *Strategic Management Journal* **30**: 679–692.
Wiesenfeld BM, Wurthmann KA, Hambrick DC. 2008. The stigmatization and devaluation of elites associated with corporate failures—A process model. *Academy of Management Proceedings* **33**: 231–251.
Wintoki MB. 2007. Corporate boards and regulation: the effect of the Sarbanes-Oxley Act and the exchange listing requirements on firm value. *Journal of Corporate Finance* **13**(2): 229–250.
Withers MC, Hillman AJ, Cannella AA. 2012. A multidisciplinary review of the director selection literature. *Journal of Management* **38**(1): 243–277.

SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix S1. Moderating effect of restatement and SOX (event history analyses).

DOI: 10.1002/smj