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Directors' Perceptions of Board Effectiveness and Internal Operations

J. Yo-Jud Cheng,[a] Boris Groysberg,[b] Paul Healy,[b] Rajesh Vijayaraghavan[c]

[a] Darden School of Business, University of Virginia, Charlottesville, Virginia 22903; [b] Harvard Business School, Boston, Massachusetts 02163; [c] Sauder School of Business, University of British Columbia, Vancouver, British Columbia V6T 1Z2, Canada

Contact: chengy@darden.virginia.edu, https://orcid.org/0000-0002-3506-5555 (YC); bgroysberg@hbs.edu (BG); phealy@hbs.edu, https://orcid.org/0000-0002-6128-5965 (PH); rajesh.vijayaraghavan@sauder.ubc.ca, https://orcid.org/0000-0002-3239-0838 (RV)

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Abstract. We contribute to the growing literature on the effectiveness of corporate boards by examining the effect of two insights that have been largely unexplored in prior studies that use public data. First, since boards' responsibilities are wide-ranging, more holistic performance measures may better capture the full range of their duties than specific public actions and outcomes (e.g., disclosure of risk management processes, financial restatements, acquisition returns, CEO turnover). And second, because corporate boards share many characteristics of other types of teams, their effectiveness is likely to be influenced by their internal operations. To examine the performance effects of these insights, we use data from 577 directors of U.S. public firms that responded to a survey we conducted in 2015–2016 and qualitative data from interviews of 75 directors. Our study establishes a strong relation between director perceptions of board performance effectiveness and internal board operations. Further, by highlighting the critical role of internal operations, identifying areas of relative strength and weakness in boards' effectiveness in various activities, and probing director perceptions of their primary responsibilities, we are able to offer concrete suggestions for future research on board effectiveness.

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1. Introduction

In the wake of recent financial crises and publicity surrounding governance lapses at companies such as General Electric and Theranos (Kosoff 2017, Weaver 2017, Carreyrou 2018, Gryta and Mann 2018), there has been continued interest from regulators, practitioners, and researchers in improving the effectiveness of corporate boards (Kirkpatrick 2009, Aebi et al. 2012, Erkens et al. 2012, Federal Reserve System 2017). Prior academic research on board effectiveness has focused on how observable board characteristics, such as size and composition, affect firm financial performance or specific public actions and outcomes (e.g., disclosure of risk management processes, financial restatements, acquisition returns, CEO turnover; see Hermalin and Weisbach 2003, Adams et al. 2010, for summaries of these studies).

However, these studies typically do not account for two important insights that are likely to influence board performance. First, boards' responsibilities and systems (including advising, monitoring, and decision-making) are complex, multifaceted, and increasingly subject to expanded investor and regulator expectations (Carter and Lorsch 2003). As a result, it is difficult to fully capture board performance by analyzing individual public board actions (Larcker and Tayan 2016). Second, boards of directors can be viewed as teams (Murphy and McIntyre 2007), suggesting that their effectiveness is likely to be influenced by their internal operations (see Sonnenfeld 2002, Nadler 2004, Useem 2006, Barton and Wiseman 2015). Although the importance of internal operations and intragroup dynamics has been established in the organizational behavior literature on team effectiveness, the implications of this insight have been subject to little empirical scrutiny in the context of boards because of archival data limitations.

We use survey and qualitative interview data to examine directors' perceptions of their boards' effectiveness in various responsibilities and in their internal operations. We use these data to empirically measure boards' internal operations and performance, identify areas of relative strength and weakness, examine the relation between perceptions of internal operations and board effectiveness, and then provide concrete suggestions for future research.

Due to their personal experiences, directors have unique insights into how boards actually operate and the challenges they face in carrying out their governance responsibilities. Many directors serve on multiple boards and are, therefore, well placed to observe variation in boards' internal operations and practices, and overall effectiveness. Further, director perceptions of their boards' efficacy can shape what boards choose to do, how they set goals, and how much effort they exert (Bandura 1997, Kozlowski and Ilgen 2006). Consequently, despite potential bias, directors' perceptions are likely to provide useful information on the boundaries of their duties, their boards' internal operations, and areas of opportunity for governance improvement.

We conducted a survey that posed questions about director, board, and company characteristics, as well as the respondent's perceptions of the board's internal operations and overall effectiveness in its core responsibilities. The sample comprises 577 directors from U.S. public companies during 2015–2016 and covers a wide variety of industries. Given the challenges in interpreting survey responses, we supplemented our survey data by collecting detailed information on director perspectives through semistructured interviews with more than 75 directors and qualitative data collected through our survey. We used this information to inform our classification of survey questions into parsimonious constructs, to validate and contextualize responses captured in our quantitative survey questions, and to support the integrity of the findings (Edmondson and McManus 2007).

Based on the board's mandated responsibilities and qualitative data on the myriad activities that underlie these responsibilities, we classify a broad set of survey questions on board effectiveness into three parsimonious constructs that capture the multifaceted nature of board activities: risk management oversight, strategy guidance and appraisal, and management evaluation and selection. Similarly, we use research from the organizational behavior literature on team effectiveness to classify questions on internal board operations into four constructs: director engagement, interpersonal relationships, board meeting management, and internal governance (see Kozlowski and Bell 2003, Kozlowski and Ilgen 2006 for summaries of this literature).

Our survey responses offer insights into directors' perceptions of their boards' internal operations and effectiveness in their primary responsibilities. Respondents typically rated their boards highly on its internal operations, but survey results reveal boards' relative strengths and weaknesses in this area. Directors rated their boards as being highly effective in meeting preparedness and collegiality, and less effective in many facets of internal governance, such as training for new board members and processes for addressing problematic directors. In evaluating effectiveness on primary board responsibilities, respondents rated their boards as being most effective, on average, in carrying out their risk management responsibilities, and as being relatively less adept in management evaluation and selection.

We then use a multivariate analysis to examine the relation between directors' perceptions of board effectiveness and boards' internal operations. Prior research shows that board effectiveness is associated with external stakeholder influence (external activists, investors, and the government), board characteristics (board size, director independence, and gender diversity), and company characteristics (size and profitability). Our analysis, therefore, controls for these factors. In addition, we control for survey respondents' characteristics (gender, board leadership, independence, and board experience).

Our multivariate tests show that the strongest factors associated with our three measures of board effectiveness are respondent assessments of their boards' internal operations. Boards rated as more engaged, with more effective meeting management, stronger interpersonal relationships, and more robust internal governance were perceived to do a better job in fulfilling all three governance responsibilities. The relationships are both statistically and economically significant.

In contrast, although a few factors identified in earlier studies were significantly correlated with director perceptions of board performance (notably targeting by an activist investor, the percentage of independent directors, investor influence over the board, and firm financial performance), many others had only weak associations. Finally, several respondent characteristics shaped perceptions of board effectiveness, including knowing board members or executives prior to joining the board, having leadership positions on the board (such as chair or lead director), whether they served as an executive or independent director, and prior board experience.

One concern is that our survey variables reflect respondent biases and could therefore be affected by halo effects that contaminate ratings for all questions from the same respondent, biasing our findings. We use a variety of approaches to examine this concern, through the use of qualitative data to corroborate our quantitative measures and empirical analysis, the identification of marker variables to control for potential halo effects in our multivariate analysis (Guiso et al. 2015), and a supplemental analysis that examines whether ratings of board effectiveness were correlated with archival measures of subsequent outcomes for a subsample of observations where the respondent voluntarily identified the name of the sample company.

We view our mixed-methodology study as making two primary contributions. First, we apply insights from the organizational behavior literature on team effectiveness into the context of corporate governance to explore the internal operations of boards and establish an empirical relation between the board's internal operations (reflected in director perceptions of its members' engagement, interpersonal relationships, meeting management, and internal governance) and its effectiveness in performing its core responsibilities. Although academics and practitioners have long suspected such a relationship (see Sonnenfeld 2002, Hermalin and Weisbach 2003, Nadler 2004, Useem 2006, Adams et al. 2010, Barton and Wiseman 2015), many governance scholars have treated internal board operations as a "black box," given the limitations of archival data (Adams et al. 2010, p. 59), and there has been little empirical analysis of their relative importance for board performance. Our study provides preliminary evidence, across a large sample, of a strong relation between director perceptions of various aspects of the board's internal operations and its effectiveness.

Second, based on our findings on directors' perceptions of their boards' duties and relative strengths and weaknesses, and the importance of internal board operations, we identify several new areas for further inquiry. We offer specific suggestions for how empirical researchers might gather additional data on internal board operations, suggest new ways in which board effectiveness can be quantified, highlight areas for future study based on where there are wide differences in director perceptions of effectiveness, and suggest future directions for corporate governance research.

We also recognize that there are a number of limitations to our study. The correlations do not prove causality, and our survey data are subject to the usual concerns about subjectivity and response biases. The construction of our board effectiveness and internal operations measures are subjective and therefore open to question. And finally, our efforts to control for any halo effects that bias survey results may be imperfect. Therefore, we see our cross-sectional findings as exploratory and indicating opportunities for further investigation.

The remainder of the paper is organized as follows: Section 2 provides an overview of prior literature; Section 3 discusses our research method; Section 4 reports director ratings of board effectiveness; Section 5 reports on ratings of internal board operations; Section 6 describes our multivariate analysis and reports results; and Section 7 discusses our findings and concludes with suggestions for future research.

2. Prior Literature

2.1. Board Effectiveness

Significant debate exists in prior work around defining the role of the board (Adams et al. 2010). Board responsibilities are multifaceted and incorporate both advisory and monitoring roles with respect to overseeing risk and regulatory compliance; guiding the strategic and operational direction of the company; and hiring and compensating the chief executive (Larcker and Tayan 2016). Given the breadth of board responsibilities, Larcker and Tayan (2016, p. 11) advocate for an expansive approach toward analyzing corporate governance, observing that "focusing an analysis on one or two mechanisms without considering the broader context can be a prescription for failure." Further, given the increased complexity of today's business environment, board responsibilities continue to expand (Carter and Lorsch 2003, Paine and Srinivasan 2019).

One approach to studying board effectiveness has been to examine financial consequences of various board actions (e.g., replacing a poorly performing CEO, appointing a new CEO, compensating the CEO, or approving mergers). However, as Hermalin and Weisbach (2003) argue, these studies are open to alternative interpretations and concerns about spurious correlation, making it difficult to interpret their findings. An alternative approach to assessing board effectiveness has been to examine how external forces, board characteristics, and director attributes affect board actions and corporate governance outcomes (Hermalin and Weisbach 2003, Adams et al. 2010). The independent variables examined in these studies have typically been externally observable characteristics, such as shareholder activism (Karpoff et al. 1996, Gillan and Starks 2007, Brav et al. 2008), investor makeup (Bhojraj and Sengupta 2003, Aggarwal et al. 2011, McCahery et al. 2016), and board demographics and composition (Westphal and Fredrickson 2001, Kor and Misangyi 2008, Kroll et al. 2008), whereas dependent variables are typically defined narrowly.

In practice, the manifestation of effective board performance can be difficult to observe; often, external observers gain information about the board's internal operations and monitoring abilities only when major governance lapses occur (Adams et al. 2010). Due to the limitations of these existing outcome measures, we argue that examining a broader set of measures of board effectiveness may be useful.

2.2. Internal Board Operations

Several studies have expanded our understanding of the behavioral aspects of governance by using nontraditional data sources to examine measures such as directors' social ties (Westphal 1999, Cohen et al. 2012), psychological traits (Walker et al. 2015; Zhu and Chen 2015a, b), reputation (Jiang et al. 2016), and ingratiation behaviors (Westphal and Stern 2006, 2007; Stern and Westphal 2010). Governance scholars nonetheless recognize that there continue to be many open areas of inquiry related to the internal operations of boards, where the absence of public data has limited opportunities for empirical research (Adams et al. 2010, Lorsch 2017). Sonnenfeld (2004, p. 112) argues that "the human side of governance" is the missing ingredient in improving corporate governance and that "the human dynamics of boards as social systems . . . will truly differentiate a firm's governance." Since boards are a type of team (Murphy and McIntyre 2007), their performance is likely to be influenced by many of the factors that have been studied in other contexts in the literature on team effectiveness (Hackman and Morris 1975, Hackman 2002, Edmondson et al. 2003, Wageman et al. 2005). In this study, we address this gap by applying insights from the organizational behavior literature on team effectiveness to the context of corporate boards to directly examine the role of boards' internal operations in shaping board effectiveness.

2.3. Director Perceptions

Directors' own perceptions of their boards' effectiveness in their primary responsibilities have not been widely studied in corporate governance research. However, perceptual data have provided valuable insights in a number of other settings. Investor and shareholder perceptions of board governance have been examined in finance and other related disciplines (Alexander et al. 2007, Certo and Hodge 2007, Bell et al. 2013, Paruchuri and Misangyi 2015). Employee perceptions of their workplaces and managers are commonly studied in human resource management (Harter et al. 2002, Cooil et al. 2009). More broadly, when applied to the context of corporate governance, the research on team effectiveness suggests that perceptual factors such as director satisfaction can shape board effectiveness (Hackman 1987, Kozlowski and Ilgen 2006) and that director perceptions of their boards' capabilities and efficacy can shape what boards choose to do and the level of effort directors exert, thereby influencing board decisions and actions (Bandura 1997, Watson et al. 2003, Kozlowski and Ilgen 2006). Understanding directors' perceptions can, therefore, advance studies of how boards function and of their strengths and limitations, identify areas for further study, and inform policy proposals to improve governance.

Prior studies have noted that, despite their limitations, surveys provide valuable insight into questions that are unresolved through theory or large sample archival studies (Graham et al. 2005, Dichev et al. 2013). By directly capturing directors' perceptions, survey methodology is well suited to studying boards' internal operations and processes, and their relation to board effectiveness, broadly defined. Coupled with qualitative interview data, this mixed-methodology approach is particularly appropriate for introducing new constructs and integrating streams of research (Edmondson and McManus 2007).

3. Research Method

Following Lorsch (2017, p. 46), we seek to measure "actual behavior in the boardroom" by using a large-sample survey and in-depth interviews to collect data on directors' perceptions of their boards' effectiveness in fulfilling its primary responsibilities and in its own internal operations.[1] We then use a multivariate analysis to examine the relation between director perceptions of board effectiveness, various external, board, and director attributes, and internal board operations.

3.1. Survey Design and Implementation

We developed our survey in 2015 in cooperation with a nonprofit board membership organization, an independent researcher, and a leading executive search firm with a network of more than 50 offices that supported public, private, and nonprofit clients around the world.[2] Our survey questions drew on prior archival research on boards, research on team effectiveness, and practitioner assessments of best board practices. The questions covered a broad range of themes and requested directors to provide data on external stakeholders; board composition; their personal background, demographic characteristics, and experience; company information; ratings of the board's internal operations; and evaluations of board effectiveness in performing a range of board activities. Qualitative questions were included in the survey to more deeply probe respondents' views; however, most questions on board performance were quantitative (many used a Likert scale from 1 to 5, where 1 signified a rating of "strongly disagree," 2 "disagree," 3 "unsure," 4 "agree," and 5 "strongly agree").

Our survey differs from previous practitioner and academic surveys of boards (Nadler 2004, Spencer Stuart 2011, Sonnenfeld et al. 2013, Larcker et al. 2016) in several ways. Some of these surveys focus on changes in the demographics and practices of boards over time (e.g., Spencer Stuart 2011) rather than internal board operations and effectiveness. Although the Larcker et al. (2016) survey is the closest in spirit to ours, and some of their findings are similar, our survey is unique in its focus on internal board operations (guided by the literature on team effectiveness) and its breadth in capturing a broad range of activities that underlie core board responsibilities (whereas questions from many practitioner surveys only cover a subset of these duties).

The survey was distributed via email to 73,855 directors from the Capital IQ database and from the search firm and nonprofit board organization's contact databases. Directors were asked to respond based on their experiences for the board they knew the best. Responses were collected from October 2015 through June 2016 from 5,237 directors, resulting in an overall response rate of 7.1%.[3] To ensure the comparability of responses within this study, we focus on directors of publicly owned firms headquartered in the United States (we run supplemental analyses on the sample of privately owned firms and firms outside the United States, which we report in the online appendix).[4] The usable sample of survey respondents that responded to the survey questions and are included in our final multivariate analysis represent 577 U.S. public company boards.[5]

Although surveys are one of the few ways to collect data on internal board operations for a large sample of companies,[6] they are also subject to well-known limitations. Ratings are subjective and can therefore be affected by biases that reduce their integrity as measures of actual behavior (Graham and Harvey 2001, Graham et al. 2005). Biases can arise from many sources, including social norms, theories learned in business school, views popularized in the financial press, and self-interest. In an effort to encourage respondents to provide accurate and candid responses, we make our survey anonymous (unless the respondent voluntarily opted to disclose the name of their company).

In addition, survey respondents represent only a small proportion of the population of board directors, raising questions about generalizability. To examine response bias, we compare the characteristics of sample directors, boards, and companies to data for U.S. directors covered by the BoardEx database, a global database of corporate directors that is widely used in academic research (e.g., Cohen et al. 2008, 2010; Aggarwal et al. 2011; Erkens et al. 2012). Online Appendix Table A-1 reports summary data on the size, composition, and industries of survey respondents' boards relative to the BoardEx U.S. sample for 2015–2016. The mean sample board had nine directors, comparable to BoardEx (10 directors), slightly higher board-level frequencies of independent directors (80% vs. 71%, respectively), and similar frequencies of female directors (16% vs. 13%), and directors who were foreign nationals (9% vs. 11%). The sample companies represent a broad cross section of industries—24% from financial and professional services firms, 14% from health-care firms, 14% from IT and telecom firms, and 13% from industrial firms—similar to the industry distribution of companies in the BoardEx U.S. sample.

The typical sample director is similar in age and boardroom experience to the average BoardEx U.S. director. The mean sample (BoardEx) director was 61 (59) years old, received his/her first directorship at age 43 (44), served on 3.4 (3.2) public boards and 7.8 (5.9) private boards, and had spent 8.1 (8.4) years on their longest-serving board. However, relative to the BoardEx database, our survey respondents included a higher proportion of women directors (28% vs. 13%), independent directors (92% vs. 71%), lead directors and board chairs (38% vs. 13%), and compensation committee members (49% vs. 27%). We therefore control for respondent characteristics in our multivariate analysis.

3.2. Qualitative Data and Interviews

To better understand aspects of internal board operations that have not yet been examined in archival corporate governance research and to calibrate the integrity of the survey ratings, we also collected qualitative data on director perceptions through two channels. First, the survey allowed respondents to provide qualitative textual information on many questions, which they frequently used to explain their ratings. Second, we interviewed 75 directors in detail to gather additional information. We identified these directors through a previous survey conducted in 2012, which asked directors to provide their name and contact information if they were willing to be contacted for an interview (among other questions).[7] In these interviews, we probed directors both on what their boards do well and the barriers that prevent their boards from performing effectively. Where relevant, we report quotes from these sources to provide evidence on whether the ratings capture the underlying constructs represented by the survey questions.

4. Director Perceptions of Board Effectiveness

We define board effectiveness as the board's performance in fulfilling its responsibilities in overseeing risk management, guiding and appraising strategy, and evaluating and selecting management. To capture the multifaceted nature of these duties, we classify a wide set of survey questions on director perceptions of board performance into three parsimonious constructs that represent these responsibilities.[8] Our qualitative data corroborates the range of activities that underlie each of these core responsibilities.

4.1. Risk Management Oversight

Six survey questions focus on the board's effectiveness in overseeing the management of risk. These address the effectiveness of board oversight of general risk management, compliance, cybersecurity, and financial planning; the board's role as a steward of the company's assets for shareholders; and whether the CEO-board relationship sets the right tone for the company. Table 1 presents mean ratings and, following prior survey research, the percentage of top ratings (4 or 5 out of 5) for each survey question. The average rating across all six questions was 3.9 out of 5;

Table 1. Summary of Survey Participants' Ratings of Board Effectiveness (Questions with 1–5 Likert Scale Rating)

	N	Mean	% Rated 4 or 5
Risk management oversight:	*577*	*3.90*	*0.69*
Compliance	569	4.07	0.78
Risk management	572	3.68	0.59
Cybersecurity	574	3.18	0.31
Financial planning	572	3.86	0.69
This board serves as a good steward of the company's assets for shareholders	573	4.41	0.94
This CEO-board relationship sets the right tone for the rest of the company	575	4.22	0.87
Strategy guidance and appraisal:	*577*	*3.73*	*0.63*
M&A	563	3.60	0.52
Global expansion	528	3.31	0.40
Innovation	570	3.38	0.44
Technology	561	3.46	0.47
Monitoring strategic decisions	576	3.79	0.67
Strategic planning (including plan B or worst-case-scenario planning)	574	3.69	0.62
This board plays a significant role in the setting of company's strategy	577	4.02	0.82
This CEO and board are aligned on vision and strategy	575	4.15	0.86
This board's nonexecutive directors are aligned on vision and strategy	572	4.09	0.85
Management evaluation and selection:	*577*	*3.60*	*0.55*
HR/talent management	576	3.34	0.43
Compensation	576	3.72	0.62
CEO evaluation	576	3.84	0.67
CEO succession planning	577	3.49	0.47

however, there was wide variation in the distribution of ratings across the six questions. The frequency of top ratings (4 or 5 out of 5) was particularly high for the board's ability to serve as a good steward of the company's assets (94%) and for the tone set by the CEO-board relationship (87%). In contrast, only 31% rated their board as effective in overseeing the management of cybersecurity risk.

Interviews and qualitative responses from the surveys provide insight into how boards oversee risk management processes.[9] Two broad concerns on risk management arose from our interviews. First, the time required for oversight of regulatory compliance often dominated the board's attention on risk management and reduced the time available to deepen directors' understanding of other risk issues:

> In the current regulatory environment, I worry that compliance requirements are so detailed that compliance review takes on a check-the-box, perfunctory approach, rather than a larger discussion of implications for the business.

Second, the scale and complexity of risks that the board is expected to oversee have increased over time, posing greater reputational risks for directors in the event of a risk failure. One such area is cybersecurity risk, where many respondents recognized that their board had limited experience or expertise. Respondents who rated their oversight as more effective in this area identified several ways that their boards had sought to develop the required expertise. One risk committee chair explained that his committee had created a separate board of advisors, comprising experts in cyber risk, who worked with management and the risk committee to provide advice on the area. Others noted that their boards had appointed a new member with experience in cybersecurity to supplement the board's risk management capabilities. Still others explained that the audit/risk committee had engaged consultants to work with the committee and management to help inform the board and ensure that appropriate actions were being taken to protect against cyberattacks. Yet many respondents were concerned about the board's ability to meet the increased expectations for risk management oversight and the accompanying reputational risks:

> Boards do not manage the company. They provide oversight. They cannot be expected to know everything that is going on in a large, complex, global company. I hate it when I read comments or headlines . . . that ask, "Where was the board?" when something goes wrong. I have no idea how you change this.

4.2. Strategy Guidance and Appraisal

Nine survey questions relate to the board's effectiveness in strategy guidance and appraisal. These address the effectiveness of board oversight of mergers and acquisitions (M&A), global expansion, innovation, technology; monitoring of strategic decisions and strategic planning; whether the board plays a significant role in setting strategy; whether the board and CEO are aligned on strategy; and whether the board's nonexecutive directors are aligned on strategy. Overall, the average rating for all strategy-related questions was 3.7 out of 5. Table 1 shows that respondents rated their boards highly on strategy alignment, with 86% giving a rating of 4 or 5 out of 5 to the question of whether the CEO and board were aligned on vision and strategy and 85% on alignment between the board's nonexecutive directors. However, in a number of other areas, responses were more mixed. Fifty-two percent rated their boards highly on processes related to the oversight of M&A, 44% on innovation processes, and 40% on global expansion.

Qualitative data indicate that many boards engage in strategy issues through annual or semiannual strategy sessions that include site visits, factory tours, and meetings and presentations with executives and managers that allow directors to learn about company strategy. However, several executive directors we interviewed noted that, despite these efforts, it is challenging for directors, many of whom have little experience in the industry, to have a deep understanding of the firm's strategy.

Interviews identified two challenges facing board engagement on strategy. First, it can be difficult for boards to "balance short-term performance and long-term strategy and value creation." And second, it can be difficult for boards to recognize the fine line between the board's role and executives' role in setting strategy:

> The biggest challenges [for boards] are in guiding management without being overbearing and imposing the board's will on matters that should be left in the hands of the management team, but not being so aloof and at arms-length that you allow management to lose sight of the goals and objectives necessary to serve the interests of the day-to-day operation of the company and the interests of long- and short-term investors, which are often at conflict.
>
> Directors can influence, provide insight and offer judgment but cannot run the company. Additionally, we are never as knowledgeable about the business as management. We can re-direct strategy and replace management, however.

4.3. Management Evaluation and Selection

Four survey questions focused on the board's role in management evaluation and selection: effectiveness of processes for human resource (HR)/talent management (to identify future generations of leaders); compensation; CEO evaluation; and CEO succession planning. The average rating across these questions, 3.6 out 5, was lower than average ratings for other board responsibilities (Table 1). Sixty-seven percent of the respondents rated their boards highly on processes relating to CEO evaluation, 62% on setting compensation, 47% on CEO succession planning, and 43% on HR/talent management.

Qualitative data on CEO compensation and CEO succession processes provided insights on effective and ineffective board practices. Respondents who rated their boards as effective in setting CEO compensation explained that their CEOs were rewarded for meeting specific performance targets. Many observed that their compensation committees used consultants, surveys, and/or peer comparisons to develop suitable pay benchmarks. Some also reported that they received assistance from the company's HR department but observed that this can raise questions over conflicts of interest. As one director elaborated, the "head of HR is involved; he wears two hats, but with a management t-shirt with bold letters."

Directors who were critical of their boards' role in CEO evaluations and compensation described a "highly political" process. Some observed that the CEO was active in setting compensation, either directly or indirectly, causing discomfort among directors. Another reported that benchmarking to peer firms was used to ratchet up the CEO's pay since "no company thinks that their CEO is under the 50th percentile." A third explained that even though the board set performance targets, "unfortunately, predefined criteria for the variable part [of compensation] are seldom applied and the decision is more of 'yes, he deserves it.'"

Comments on CEO succession planning also provide insight into variation in boards' processes around CEO transitions. One director who rated his board as effective on succession planning described its multifaceted succession planning process:

> We require that the sitting CEO provide an annual review of the top three levels of executives. We then require that there be a development plan for each executive to address any shortcomings to enable each to become a "ready now" candidate. Finally, all succession candidates interact regularly with the board.

In contrast, a director who rated his board's succession planning as ineffective commented that "we never talk about the subject" and another observed that "a powerful CEO is making it difficult to find a successor."

5. Director Perceptions of Internal Board Operations

The organizational behavior literature on team effectiveness suggests that the internal operations of boards may be influential in shaping board effectiveness (see Kozlowski and Bell 2003, Kozlowski and Ilgen 2006 for summaries of this literature). Many of these internal processes have not been directly studied in empirical research on corporate boards. Applying insights from this literature to our board settings, we classify survey questions into four constructs representing facets of internal board operations that research suggests are likely to influence board effectiveness: director engagement, meeting management, interpersonal relationships, and internal governance.

5.1. Director Engagement

Existing corporate governance studies have analyzed measures such as board meeting attendance rates as a proxy for director engagement (Adams and Ferreira 2008). However, these studies do not capture the wide range of activities and behaviors that underlie engagement. Research on team effectiveness highlights the influence of team members' knowledge, task commitment, and motivational tendencies on group performance (Hackman 1976, Goodman et al. 1987, Kozlowski and Ilgen 2006).

Four survey questions are related to director engagement: whether directors stay current on the industry; whether they are engaged between meetings; whether they are well prepared for meetings; and whether they feel connected to the mission of the company. Summary statistics on the ratings are shown in Table 2. Overall, respondents rated their boards' director engagement highly, with an average rating across the four questions of 4.1 out of 5. Nearly all respondents (95% with ratings of 4 or 5 out of 5) reported feeling connected to the mission of their company and rated their board highly on director preparedness for meetings (92%). Ratings of whether directors were current on the industry and engaged between meetings were more mixed (67% and 58%, respectively).

The importance of these practices was also reflected in our interviews and qualitative survey responses. Several directors highlighted the importance of director engagement with respect to preparation for board meetings and holding directors accountable for preparation:

> To have an effective board you need diligence and active participation by all the directors. It's so important to do the work. It sounds so basic, but what you don't want is a director who shows up who hasn't even read the material or who falls asleep or spends all of the meeting with his cell phone under the table texting. . . . To be effective, you have to have a fully engaged board.
>
> The most effective boards I've been on hold board members accountable to do our homework, to attend the board meetings and to be actively engaged.

Directors also emphasized the use of email and teleconferences to "keep all members abreast of appropriate

Table 2. Summary of Survey Participants' Ratings of Internal Board Operations (Questions with 1–5 Likert Scale Rating)

	N	Mean	% Rated 4 or 5
Director engagement:	*577*	*4.07*	*0.78*
Staying current on industry	573	3.84	0.67
Staying engaged between meetings	569	3.68	0.58
Overall, all directors are well prepared for meetings on this board	573	4.30	0.92
I feel connected to the mission of this company	576	4.47	0.95
Interpersonal relationships:	*577*	*4.17*	*0.82*
Collegiality	572	4.32	0.85
Relationship between shareholder and nonshareholder directors	500	3.74	0.55
It is clear what is—and what is not—acceptable member behavior on this board	572	4.02	0.81
The CEO communicates and consults with this board in an appropriate and effective manner	576	4.20	0.87
I feel my voice is heard on this board	576	4.48	0.95
Board meeting management:	*577*	*4.15*	*0.85*
Time management (e.g., digesting all materials; allowing adequate time for thoughtful discussion and debate)	561	3.70	0.60
Independent thinking (independent from management as well as from fellow directors)	574	4.06	0.78
We are able to have open and candid discussions on this board	576	4.39	0.93
This board has a "devil's advocate" in most debates	575	3.85	0.75
Agenda topics and materials accurately reflect priorities of board	577	4.37	0.96
Sufficient time is allocated during board meetings to discuss strategy	573	3.98	0.82
This board's overall effectiveness would be lessened without executive sessions	571	4.28	0.86
Overall, the committees on this board work well	573	4.39	0.96
Overall, the general meetings of this board are productive	573	4.32	0.94
Internal governance:	*577*	*3.79*	*0.65*
Board composition (e.g., appointing directors with skills and experience board needs)	576	3.97	0.73
Evaluation of individual directors	576	3.33	0.44
Alignment on role of independent directors	572	4.15	0.80
Creating effective board structure (leadership roles, committees)	575	3.90	0.69
Integrating new members	569	3.96	0.71
Addressing problematic directors (e.g., domineering, disruptive, asserting personal agenda, silent)	567	3.68	0.59
This board provides effective training for new directors	573	3.51	0.58
Aggregated internal rating	*577*	*4.04*	*0.77*

developments and issues" between board meetings and to ensure that there are "no surprises" at meetings. On some boards, directors are encouraged to make site visits and meet with executives and managers between meetings to stay up-to-date on the company and industry.

5.2. Interpersonal Relationships

Prior research on boards is inconclusive on the role of the relationship between the board and the CEO. Some argue that social ties and relationships between directors and C-level executives impair the board's ability to monitor executive performance, whereas others argue that close relations facilitate candor and trust, increasing the CEO's willingness to share information and seek board advice for key actions (Westphal 1999, Argote et al. 2003, Adams and Ferreira 2007, Fracassi 2016).

In addition to the relationship between the CEO and other board members, the effectiveness of boards of directors is also likely to be influenced by the interpersonal relationships between all of their directors (Hackman and Morris 1975, Edmondson et al. 2003, Wageman et al. 2005, Kozlowski and Ilgen 2006). Given the high status and power of many board members, egos and competition for status may impede the group's ability to collaborate, and thereby hamper the ability of boards to operate as effective teams (Groysberg et al. 2011).

Our survey includes five questions on interpersonal relationships on boards (both between board members and between directors and management or other key stakeholders): perceptions of board collegiality; the relationship between shareholder and nonshareholder directors; whether the director feels his/her voice is heard on the board; whether there is clarity around acceptable behavior on the board; and whether the CEO communicates and consults with the board in an appropriate and effective manner.

Respondents typically rated their boards very positively on these questions, with an average rating across the questions of 4.2 out of 5 (see Table 2). Ninety-five percent felt that their voices were heard on the board and 87% that the CEO communicated effectively with the board. If there was an area of concern, it was that only 55% of respondents reported an effective relationship between shareholder and nonshareholder directors.

Qualitative evidence supported the importance of capturing varied measures of interpersonal relationships to understand their potential impact on board effectiveness. The importance of the board's interactions with the CEO and senior executives was widely discussed in our interviews. In discussing the CEO's communication with the board, one respondent observed that the CEO lays the groundwork for the relation with the board by providing "transparency about the 'real' situation within the organization," such that the board has "candid and complete information." In contrast, a few directors with low ratings in this area noted that their boards did not have a healthy and open relationship with senior managers, observing that "we have not been effective in dealing with a highly aggressive CEO" and "we put too much trust in [the] CEO and management team."

Interviews with directors indicated that shared camaraderie from being a member of a team was one of their leading reasons for serving. One director reflected, "I like being part of a team (and I am too old for team sports)." They pointed to the importance of maintaining a collegial board environment where directors enjoy working with each other, increasing their willingness to share knowledge, learn from others, and exchange ideas. In contrast, respondents who did not experience their boards as well-functioning teams lamented that "there is too much 'me' and way too little 'us'" and saw the boardroom as "a challenging environment which is often influenced by big egos, low self-esteem and self-awareness, and politics."

5.3. Board Meeting Management

Empirical studies have examined the relation between board performance and factors such as board meeting frequency (Vafeas 1999, Xie et al. 2003) and attendance (Adams and Ferreira 2008), but generally do not directly examine *how* board meetings are managed. Coordination, cooperation, and communication are critical behavioral processes that can influence team performance (Kozlowski and Bell 2003, Kozlowski and Ilgen 2006). Applied to the context of board meetings, this suggests that meeting agendas, time management, and the quality of discussions at board meetings can influence board effectiveness.

Our survey includes nine questions aimed at understanding the quality of board meeting management: effective time management (e.g., allowing adequate time for digesting all materials and for thoughtful discussion and debate); whether the agenda topics and materials accurately reflect board priorities; whether sufficient time is allocated to discuss strategy; whether the general board meetings are productive; the effectiveness of executive sessions; the effectiveness of committees; the board's ability to have open and candid discussions; whether there is a "devil's advocate" in most debates; and the degree of directors' independent thinking (independent from management as well as from fellow directors).

Overall, respondents rated their boards highly on meeting management, with an average rating across the nine questions of 4.2 out of 5 (see Table 2). More than 90% of respondents rated their boards as 4 or 5 (out of 5) on factors including the functioning of board committees, whether agenda topics and materials reflect the board's priorities, and the productivity of the board's general meetings. Ratings were lower on independent thinking (78% with ratings of 4 or 5), and markedly more mixed on time management (60%).

Our qualitative evidence illustrated the many ways in which board meetings could be more effectively managed. Directors described a variety of effective board meeting practices, such as disseminating agendas well in advance of meetings and circulating "thorough, well-compiled and timely board papers that all directors read thoroughly prior to meetings," so that directors are aware of all agenda items and can address simpler issues and questions via email or phone calls prior to meeting in person. One director described how meeting agendas were planned:

> The board meetings are well structured. The agenda is 60% fixed (macro review, financial review, audit comm. reports, etc.). The board materials are distributed to the members 3 days prior to the meeting. . . . At each board meeting 2 to 3 different subjects are discussed.

Several directors noted that executive sessions, where independent directors meet without management present, have facilitated candid conversations within the board and with the CEO:

> We have developed a culture of discussing issues with the CEO present in the first part of the executive session, which tends to get concerns out on the table while he is there to respond to them, rather than engaging in protracted discussions in session without him. The CEO then leaves the session, the independent directors meet by themselves, and then we ask the CEO to return to the session so we can give him feedback or additional questions based on the independent directors' private discussions. This means that the board's messages to the CEO get stated with everyone present, rather than relying on the lead director's sole translation to the CEO in private after the session.
>
> [We] consistently start and end each meeting with executive sessions so they raise no red flags and are part of the routine. Sometimes we have major issues to discuss and sometimes we don't, but it sets the right tone and is very important to have discussion time without executives present from the management team.

The role of the chair was also considered important to meeting effectiveness. For example, one director attributed his board's open communication to the "conduct of the chair who encourages participation, and at the end [of each meeting] goes around the table to solicit final comments from each director." In addition, several directors commented on the importance of behavioral norms in discussions, such as listening more than speaking and mutual respect of each other's time. One director recommended a set of clear norms to help manage time at meetings: "During presentations, questions should be exclusively 'clarification questions' and 'challenging questions' should be kept for the end of the presentation. Too often we are carried away by a challenging question which takes us off-track, leading to the impossibility for the presenter to give his full presentation." Directors also expressed frustration with individuals who are "passively aggressively quiet" in discussions and those that "waste time on gossip."

5.4. Internal Governance

Research on the internal governance of boards has focused on measures such as age or term limits (Lipton and Lorsch 1992, Vafeas 2003, Sharma and Iselin 2012), skills and expertise (Defond et al. 2005, Güner et al. 2008, Krishnan and Visvanathan 2008), diversity (Ahern and Dittmar 2012, Matsa and Miller 2013), and independence (Adams and Ferreira 2007). In addition to demographics and board policies examined in prior corporate governance studies, research on team effectiveness suggests that internal processes, such as those for director training, alignment, and conflict alleviation, can also influence board effectiveness (Kozlowski and Ilgen 2006).

Seven survey questions asked respondents to evaluate their boards' internal governance practices. These covered board composition (e.g., appointing directors with skills and experience the board needs); evaluation of individual directors; alignment on the role of independent directors; creation of effective board structure (leadership roles, committees); addressing problematic directors (e.g., domineering, disruptive, asserting personal agenda, silent); integration of new members; and training for new directors.

Overall, respondents were mixed on their ratings of their boards' internal governance processes. The average rating across all seven questions was 3.8 out of 5 (see Table 2). Eighty percent rated their boards as 4 or 5 (out of 5) on alignment on the role of independent directors and 73% on board composition. But, reflecting boards' struggles in onboarding new directors and addressing problematic directors, only 58% rated their boards highly for providing training for new board members and 44% for evaluation of individual directors.

Qualitative data provided additional clarity on the role of various internal governance processes. Although many directors reported that their boards conducted director evaluations, their opinions on its effectiveness were mixed, as reflected in the following comment:

> [I'm] not really big on individual assessment by each person. [We] have this on one board, and the range of differences is too small to make it valuable. [It] only works if there is a clear outlier who is not effective.

Whereas many directors reported that their boards struggle with how to respond to problematic board members, several explained how they had managed these difficult situations:

> If I was uncomfortable with a director's performance, I would go to the lead director and tell him what's going on—for example, this director is missing meetings or doesn't seem to be doing his homework. The lead director would then talk to the person and find out what's going on. Because we have directors who have a history of being extremely reliable, we make the assumption that something else must be going on, and we need to understand what that is.
>
> When I was chairman of a board, we had a couple of directors who just weren't performing. I went to them and said: "Here are the problems we're seeing, and if you can't correct these things, then we really think you should resign from the board." In both instances, they became very upset and resigned. But it was a very straightforward conversation. . . . In some cases, people respond to that, and in some cases, they just get mad and quit. I've seen both happen.

6. Multivariate Analysis and Results

6.1. Board Effectiveness Model

We next explore the relation between director perceptions of board effectiveness and their ratings of the board's internal operations. Our tests use the following ordinary least squares (OLS) model:

$$Board\ Effectiveness_{icn} = b_0 + b_1 Internal\ Board\ Operations_{icn} + X'b_{icn} + d_n + e_{icn}$$

for respondent i in company c within industry n, where $\mathbf{X}'$ is a vector of control variables. To account for heteroskedasticity, we calculate robust standard errors. Controls for board performance factors (identified in prior research) include external stakeholder influence, board size and composition, director characteristics, and company characteristics.

External Stakeholders. Companies with activist investors are likely to have lower director perceptions of board effectiveness, both because activist investors identify companies where they see opportunities to improve governance, management, and performance (Jensen and Meckling 1976, Fama and Jensen 1983, Shleifer and Vishny 1997, Chhaochharia et al. 2017), and because pressure imposed by activists on board decisions and oversight can increase conflicts on the board. As reported in Table 3, 14% of the sample boards report the presence of an influential activist investor.

In contrast, it is less clear how director perceptions are related to the influence of investors or the government. Their influence could improve board alignment with investor interests or government objectives, increasing director perceptions of board effectiveness. But it could also increase pressures to focus on government priorities at the expense of other stakeholders. Table 3 shows that 90% of respondents perceive that investors have a significant influence on the board versus 23% for the government.

Table 3. Summary of Survey Participants' Responses on External, Board, Director, and Company Characteristics

	N	Mean
External: high activist influence (0/1)	577	0.14
External: high investor influence (0/1)	577	0.90
External: high government influence (0/1)	577	0.23
Board: extreme size (<6 or >12) (0/1)	577	0.11
Board: % independence	577	0.80
Board: % female	577	0.16
Director: lead director or chairman (0/1)	577	0.38
Director: executive (0/1)	577	0.08
Director: not previously known to board/execs (0/1)	577	0.38
Director: first board appointment (0/1)	577	0.01
Director: female (0/1)	577	0.28
Company: family-owned (0/1)	577	0.03
Company: annual revenues (ln)	577	7.38
Company: performance (prior 12 months) (1–5)	577	3.50
Industry FE 1: Consumer Discretionary	577	0.15
Industry FE 2: Consumer Staples	577	0.04
Industry FE 3: Energy & Utilities	577	0.11
Industry FE 4: Financial & Professional Services	577	0.24
Industry FE 5: Healthcare	577	0.14
Industry FE 6: IT & Telecom	577	0.14
Industry FE 7: Industrials	577	0.13
Industry FE 8: Materials	577	0.06
Marker: enjoy serving on board (1–5)	577	4.55
Marker: board enhanced professional reputation (1–5)	577	4.19

Board Size and Composition. Hermalin and Weisbach (2003) argue that optimal board size is unlikely to be constant across firms. However, very large and very small boards are less likely to be effective. Large boards can suffer from free-rider problems and become symbolic rather than central to management oversight (Lipton and Lorsch 1992, Jensen 1993), whereas particularly small boards lack the breadth of skills required to perform their functions. We therefore create a dummy variable for whether the board is particularly large (more than 12 directors; around the 95th percentile in our sample) or particularly small (fewer than six directors; around the 5th percentile in our sample). Eleven percent of our sample boards fall into this range.

Director independence has long been viewed as critical to effective board governance (Hermalin and Weisbach 2003, Nguyen 2012). We therefore examine the proportion of directors who are classified as independent directors. As reported in Table 3, the average sample board has 80% of its members identified as independent. Gender diversity on boards has also been examined extensively in prior research (Hillman et al. 2007, McDonald and Westphal 2013). Some studies suggest that boards with more female directors are stronger monitors and provide greater oversight (Adams and Ferreira 2009, Srinidhi et al. 2011, Abbott et al. 2012). Alternatively, if male and female directors have systematically different experiences, gender diversity could expand points of view and improve decision-making (Wiersema and Bantel 1992, Daily et al. 1999). As reported in Table 3, for the sample boards, 16% of the directors are female.

Respondent Characteristics. Respondents who are lead directors or board chairman (38% of the sample) are likely to be more positive about the board's effectiveness, either because they do not differentiate board performance from their assessment of their own leadership, or because they are selected to take on a leadership role because of their positive views on the board. In contrast, respondents who are independent are likely to be less biased but also less informed (Nicholson and Newton 2010), which could influence their responses. We use two measures of independence: whether the director is a company executive (8% of the sample), and whether the director previously knew any of the board members or executives prior to their board appointment (38%) (Cohen et al. 2012). In addition, respondents who are less experienced (first-time directors, 1% of the sample) may be more conscientious than seasoned directors (Chen and Keefe 2020), but also have less information to benchmark the board's performance, potentially affecting their responses. Finally, female respondents (28% of the sample) are typically seen as outsiders in male-dominated social networks (Kanter 1977, Brass 1985, Blair-Loy 2001) such as boards, and may rate their boards differently than their male counterparts.

Company Characteristics. Controls for company-level characteristics that we expect to be associated with director perceptions of board effectiveness include whether the company is family-owned (3% of the sample), lagged performance over the prior 12 months (as reported by the respondent), annual revenues in $U.S. millions, (log transformed to reduce skewness), and industry. Respondents from family-owned boards are likely to have lower perceptions of board effectiveness, particularly in assessing and selecting the CEO, since these responsibilities typically reside with the family. Firm performance is expected to be associated with director perceptions because directors correctly or incorrectly assume that strong performance is partially attributable to effective board performance. Expectations for the board are also likely to be higher for larger companies, potentially affecting director perceptions. Finally, industry fixed effects account for the impact of time-invariant industry characteristics that may influence perceptions of board effectiveness.

6.2. Econometric Concerns

Correlations were relatively high between the four measures of internal board operations (ranging from 0.73 to 0.80), and between these variables and the three measures of board effectiveness (ranging from 0.60 to 0.75) (the full set of correlations are reported in Online Appendix Table A-2). The high reported univariate correlations raise a concern about whether consistent biases (either positive or negative) create a halo effect for all ratings from the same respondent. A halo effect creates two econometric problems: it induces a spurious relation between our dependent and independent variables, and it creates a standard error-in-variables problem. Guiso et al. (2015) argue that survey researchers can control for any halo effect on independent variables by identifying an independent variable that is affected by the halo effect, but uncorrelated with true measures of the independent variables. Similarly, to address the halo effect on the dependent variable, the researcher requires an independent variable that is affected by the halo effect but whose true value is uncorrelated with the measured dependent variable. A comparable approach has been used in univariate analyses (Lindell and Brandt 2000, Lindell and Whitney 2001, Podsakoff et al. 2003).

Two of the questions included in our survey arguably serve as "markers" of these halo effects: the respondent's enjoyment from serving on the board, and whether serving on the board has enhanced the respondent's professional reputation. Both variables are likely to be affected by a halo effect, but neither should be correlated with the respondent's true perceptions of board effectiveness. Further, the true enhancement to respondents' reputations from board membership should be uncorrelated with responses on internal board operations.[10] We therefore include both variables separately in our multivariate model as marker variables.

6.3. Results

Table 4 reports the results of our multivariate analysis. We present results in two tables: panel A reports estimates using a marker variable for the respondent's enjoyment derived from serving on the board, and panel B reports estimates using a marker variable for the respondent's reputational benefits derived from board membership. Given the high correlations between the four internal board operations constructs, we report estimates using a model with all four constructs included together and then a model that includes the aggregated average of all four internal

Table 4. OLS Estimates of the Relation Between Survey Participants' Perceptions of Board Effectiveness and Internal Board Operations, Including Controls for External, Board, Director, and Company Characteristics

Panel A: Marker variable—enjoy serving on board

Variables	(1) Risk management oversight	(2)	(3) Strategy guidance and appraisal	(4)	(5) Management evaluation and selection	(6)
External: high activist influence	−0.0601	−0.0667	−0.0340	−0.0437	−0.1180*	−0.1218*
	(0.041)	(0.041)	(0.045)	(0.045)	(0.066)	(0.066)
External: high investor influence	−0.0287	−0.0199	0.0203	0.0360	0.1646**	0.1657**
	(0.050)	(0.050)	(0.052)	(0.053)	(0.065)	(0.064)
External: high government influence	0.0098	0.0116	0.0075	0.0073	0.0316	0.0364
	(0.034)	(0.034)	(0.036)	(0.037)	(0.048)	(0.048)
Board: extreme size (<6 or >12)	0.0810*	0.0815*	0.0596	0.0542	−0.0744	−0.0659
	(0.046)	(0.046)	(0.043)	(0.043)	(0.066)	(0.064)
Board: % independence	0.1170	0.0965	−0.3308***	−0.3489***	0.0980	0.0704
	(0.098)	(0.096)	(0.098)	(0.094)	(0.145)	(0.143)
Board: % female	−0.0449	−0.0458	−0.1546	−0.1855	0.2794	0.3199*
	(0.133)	(0.130)	(0.130)	(0.127)	(0.185)	(0.186)
Director: lead director or chairman	0.0259	0.0225	0.0117	0.0037	0.0910**	0.0934**
	(0.030)	(0.030)	(0.029)	(0.029)	(0.041)	(0.041)
Director: executive	−0.0132	−0.0006	−0.1357***	−0.1139**	0.0204	0.0228
	(0.057)	(0.057)	(0.050)	(0.047)	(0.079)	(0.080)
Director: not previously known to board/executives	−0.0569*	−0.0606**	−0.0371	−0.0427	−0.0170	−0.0189
	(0.030)	(0.030)	(0.030)	(0.031)	(0.041)	(0.042)
Director: first board appointment	0.0744	0.0533	−0.0269	−0.0776	−0.2634**	−0.2495**
	(0.160)	(0.163)	(0.133)	(0.133)	(0.116)	(0.111)
Director: female	0.0341	0.0291	−0.0033	−0.0051	−0.0582	−0.0682
	(0.034)	(0.033)	(0.036)	(0.037)	(0.047)	(0.047)
Internal: director engagement	0.1655***		0.2542***		0.0882	
	(0.047)		(0.044)		(0.063)	
Internal: interpersonal relationships	0.2258***		0.2032***		0.3100***	
	(0.051)		(0.053)		(0.067)	
Internal: board meeting management	0.2506***		0.3231***		0.2155***	
	(0.056)		(0.058)		(0.080)	
Internal: internal governance	0.1501***		0.0922*		0.2736***	
	(0.041)		(0.050)		(0.064)	
Internal: all aggregated		0.7748***		0.8324***		0.8975***
		(0.041)		(0.040)		(0.055)
Marker: enjoy serving on board	0.0061	0.0237	−0.0093	0.0171	−0.0940**	−0.0845*
	(0.030)	(0.028)	(0.033)	(0.031)	(0.046)	(0.043)
Company: family-owned	−0.0525	−0.0473	−0.1480*	−0.1413	−0.1159	−0.1116
	(0.081)	(0.081)	(0.087)	(0.089)	(0.093)	(0.090)
Company: annual revenues (ln)	0.0224***	0.0220***	0.0148*	0.0134*	0.0258**	0.0269**
	(0.007)	(0.007)	(0.008)	(0.008)	(0.011)	(0.011)
Company: performance (prior 12 months)	0.0633***	0.0600***	0.0644***	0.0596***	0.0656***	0.0638***
	(0.015)	(0.015)	(0.014)	(0.014)	(0.021)	(0.021)
Constant	0.5038***	0.5397***	0.2974*	0.4175***	−0.0331	−0.1035
	(0.160)	(0.156)	(0.158)	(0.152)	(0.214)	(0.207)
Observations	577	577	577	577	577	577
R-squared	0.682	0.679	0.691	0.682	0.567	0.561

board operations variables (we present results for each variable separately in Online Appendix Table A-3).

For each of the three board effectiveness constructs (risk management oversight, strategy appraisal and guidance, and management evaluation and selection), we find a strong positive relation with the four variables for internal board operations and for the average of all four variables. These correlations are consistent across specifications, and the magnitudes of these correlations are economically as well as statistically significant. For example, in model 1, we find that a one-unit increase in ratings for director engagement (on a 1–5 Likert scale) is associated with a

Table 4. (Continued)

Panel B: Marker variable—board enhanced professional reputation						
	(1)	(2)	(3)	(4)	(5)	(6)
Variables	Risk management oversight		Strategy guidance and appraisal		Management evaluation and selection	
External: high activist influence	–0.0585 (0.041)	–0.0648 (0.041)	–0.0318 (0.045)	–0.0407 (0.044)	–0.1178* (0.066)	–0.1195* (0.065)
External: high investor influence	–0.0315 (0.051)	–0.0239 (0.050)	0.0183 (0.052)	0.0309 (0.053)	0.1735*** (0.066)	0.1684** (0.065)
External: high government influence	0.0100 (0.034)	0.0119 (0.034)	0.0081 (0.036)	0.0077 (0.036)	0.0332 (0.048)	0.0366 (0.048)
Board: extreme size (<6 or >12)	0.0796* (0.047)	0.0796* (0.047)	0.0581 (0.044)	0.0518 (0.044)	–0.0722 (0.067)	–0.0647 (0.065)
Board: % independence	0.1198 (0.098)	0.1011 (0.097)	–0.3299*** (0.098)	–0.3434*** (0.094)	0.0833 (0.145)	0.0659 (0.142)
Board: % female	–0.0513 (0.133)	–0.0531 (0.130)	–0.1644 (0.129)	–0.1961 (0.126)	0.2721 (0.183)	0.3164* (0.184)
Director: lead director or chairman	0.0240 (0.030)	0.0200 (0.030)	0.0093 (0.029)	0.0006 (0.029)	0.0912** (0.041)	0.0950** (0.041)
Director: executive	–0.0162 (0.057)	–0.0039 (0.057)	–0.1396*** (0.049)	–0.1193** (0.048)	0.0210 (0.080)	0.0183 (0.080)
Director: not previously known to board/executives	–0.0570* (0.029)	–0.0604** (0.030)	–0.0380 (0.030)	–0.0428 (0.031)	–0.0209 (0.041)	–0.0206 (0.042)
Director: first board appointment	0.0733 (0.155)	0.0548 (0.159)	–0.0310 (0.131)	–0.0774 (0.130)	–0.2776*** (0.106)	–0.2597*** (0.100)
Director: female	0.0331 (0.034)	0.0276 (0.033)	–0.0052 (0.036)	–0.0070 (0.036)	–0.0615 (0.047)	–0.0676 (0.047)
Internal: director engagement	0.1613*** (0.047)		0.2454*** (0.043)		0.0702 (0.063)	
Internal: interpersonal relationships	0.2226*** (0.048)		0.1886*** (0.050)		0.2533*** (0.063)	
Internal: board meeting management	0.2466*** (0.056)		0.3105*** (0.057)		0.1754** (0.081)	
Internal: internal governance	0.1468*** (0.041)		0.0910* (0.050)		0.2905*** (0.065)	
Internal: all aggregated		0.7729*** (0.038)		0.8140*** (0.035)		0.8105*** (0.053)
Marker: board enhanced professional reputation	0.0240 (0.021)	0.0278 (0.021)	0.0346 (0.021)	0.0407* (0.021)	0.0154 (0.032)	0.0147 (0.032)
Company: family-owned	–0.0498 (0.081)	–0.0430 (0.081)	–0.1456* (0.088)	–0.1365 (0.089)	–0.1222 (0.094)	–0.1181 (0.091)
Company: annual revenues (ln)	0.0222*** (0.007)	0.0218*** (0.007)	0.0146* (0.008)	0.0131* (0.008)	0.0257** (0.011)	0.0272** (0.011)
Company: performance (prior 12 months)	0.0626*** (0.015)	0.0596*** (0.015)	0.0626*** (0.014)	0.0586*** (0.014)	0.0609*** (0.021)	0.0612*** (0.021)
Constant	0.4917*** (0.159)	0.5412*** (0.153)	0.2689* (0.158)	0.4024*** (0.148)	–0.1013 (0.214)	–0.1974 (0.205)
Observations	577	577	577	577	577	577
R-squared	0.682	0.680	0.692	0.684	0.562	0.557

Note. Robust standard errors in parentheses, industry fixed effects included in all specifications.
***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

0.166 unit increase (again on a 1–5 Likert scale) in the average rating for risk management effectiveness (approximately 0.3 standard deviations). Similarly, for model 3, a one-unit increase in ratings for interpersonal relationships is associated with a 0.203-unit increase in the average rating for effectiveness in strategy guidance and appraisal (approximately 0.3 standard deviations). For model 5, a one-unit increase in ratings of internal governance practices is associated with a 0.274-unit increase in the average rating for effectiveness in management evaluation and selection (approximately 0.4 standard deviations).

In contrast, many of the external, board, and company-level characteristics are not strongly correlated with perceptions of board effectiveness, with some exceptions. Consistent with prior research, we find that activist influence is negatively associated with ratings for management evaluation and selection, suggesting that either activists target companies with poor governance, or activist engagement with the board negatively affects directors' perceptions of their boards' effectiveness. Meanwhile, firms with strong investor influence have higher ratings for management evaluation and selection, consistent with their influence aligning directors' interests more closely with shareholders.

For company-level measures, we find that larger firms have higher ratings for all three measures of board effectiveness, suggesting that either larger companies invest more in board governance or that directors of large companies perceive that they are more diligent in their governance responsibilities. However, the economic magnitude of this relationship is relatively modest. Firms with stronger prior performance also have higher ratings for all three board effectiveness constructs. We cannot distinguish whether this implies that stronger governance actually improves firm performance, or whether directors incorrectly perceive this to be the case.

Notably, despite the focus in prior governance research, board composition appears to have a relatively modest association with perceptions of effectiveness. Boards with a higher percentage of independent directors have lower ratings on board strategy guidance and appraisal. One plausible explanation for this finding is that boards with more independent directors also have fewer members with deep knowledge of the firm and its industry, reducing the effectiveness of their guidance on strategy. And boards with a higher percentage of women directors have higher ratings on management evaluation and selection. We do not find strong relationships between other measures of board effectiveness and board composition.

Several director (respondent) characteristics are related to perceptions of board effectiveness. Executive directors perceive that their boards are less effective in strategy guidance and appraisal, consistent with responses from several executive directors we interviewed who had concerns about the board's depth of understanding of the firm's strategy. Respondent independence and experience also shape their ratings. Respondents who were lead directors or board chairs, and presumably less independent, had higher assessments of board effectiveness in management evaluation and selection, whereas respondents who were unknown to the board when appointed had lower perceptions of the board's effectiveness in risk management oversight. Respondents for which the sample company is their first board assignment had lower ratings of board effectiveness in management evaluation and selection.

Finally, as reported in panels A and B of Online Appendix Table A-3, estimates for the two marker variables were generally positive and significant in the models where each measure of internal operations is included independently, suggesting that they were at least partially effective in capturing potential halo effects that impacted all questions for a given individual respondent; however, in the fully specified models (with all four measures of internal operations simultaneously included) reported in panels A and B of Table 4, the marker variables generally are not statistically significant, which is consistent with prior work (Guiso et al. 2015) and reflects the decreasing likelihood of halo effects in more complex empirical models (Chang et al. 2010).

6.4. External Outcomes (from Archival Sources)

To explore the concern that the respondents' ratings of board effectiveness reflect perceptions rather than actual board performance, we estimate correlations between board effectiveness ratings and subsequent firm outcomes for the subsample of boards where the respondent opted to voluntarily disclose the name of their company (and for which we were able to match the firm to archival data for the year following survey implementation). We compiled our archival data from the Capital IQ, Compustat, Execucomp, BoardEx, and Institutional Shareholder Services (ISS) databases. Our measures of subsequent performance include risk measures (auditor going concern opinions, reduced corporate guidance, impairments or write-offs, restatements, lawsuits, auditor changes, bankruptcy, filing delays, and activist letters to the company), strategic changes (M&A announcements, discontinued operations), management evaluation and selection metrics (CEO compensation mix, executive compensation say-on-pay vote results, CEO turnover), as well as traditional financial returns (return on assets (ROA), return on equity (ROE), and returns on sales (ROS)).

As reported in Table 5, ratings of our three constructs for board effectiveness are correlated with a number of relevant variables of interest. For example, auditor going concern doubts were negatively correlated with ratings for management evaluation and selection; and the likelihood of lower corporate guidance was positively correlated with ratings of risk management oversight and negatively correlated with strategy guidance and appraisal (panel A). Meanwhile, announcements of merger or acquisition activity were

Table 5. Logit and OLS Estimates of the Relation Between Outcomes from Archival Sources and Survey Participants' Perceptions of Board Effectiveness, Including Controls for Lagged Financial Performance

Panel A: Risk measures, strategic changes, and CEO compensation mix

Variables	(1) Auditor going concern doubts (logit)	(2) Corporate guidance lowered (logit)	(3) M&A transaction announcement (logit)	(4) % Salary (OLS)	(5) % Cash compensation (OLS)	(6) % Stock grants + options (OLS)
Risk management oversight	−0.0211	2.5385***	−1.9792**	0.0642	0.0333	0.0813
	(0.503)	(0.870)	(0.810)	(0.060)	(0.064)	(0.062)
Strategy guidance and appraisal	1.0839	−1.5036**	2.2752***	−0.0277	−0.0299	−0.1073
	(1.456)	(0.673)	(0.846)	(0.064)	(0.063)	(0.074)
Management evaluation and selection	−1.6342***	−0.8715	0.5936	−0.1124**	−0.1145**	0.0934*
	(0.444)	(0.779)	(0.532)	(0.044)	(0.045)	(0.050)
Company: performance (prior 12 mos.)	−0.1402	−0.0455	−0.1671	−0.0098	−0.0050	−0.0063
	(0.796)	(0.526)	(0.298)	(0.020)	(0.021)	(0.024)
Constant	−1.8975	−3.5228	−3.8930**	0.5200***	0.6722***	0.2491
	(4.875)	(2.751)	(1.797)	(0.155)	(0.176)	(0.204)
Observations	95	95	95	89	89	89
R-squared				0.110	0.131	0.087

Panel B: Firm financial performance

Variables	(7) ROA (OLS)	(8) ROE (OLS)	(9) ROS (OLS)
Risk management oversight	0.0038	0.1623	0.9911
	(0.006)	(0.120)	(0.740)
Strategy guidance and appraisal	−0.0095	−0.2839**	−1.8239
	(0.009)	(0.130)	(1.129)
Management evaluation and selection	0.0089	0.2253**	−0.2587
	(0.008)	(0.086)	(0.429)
Leverage	0.0000	0.0006**	−0.0008
	(0.000)	(0.000)	(0.001)
ROA (previous year)	0.7864***		
	(0.079)		
ROE (previous year)		0.6145***	
		(0.146)	
ROS (previous year)			1.9064
			(1.172)
Constant	−0.0081	−0.5447**	3.8224
	(0.021)	(0.252)	(4.505)
Observations	69	68	68
R-squared	0.828	0.590	0.374

Note. Robust standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; *$p < 0.1$.

positively correlated with ratings for strategy guidance and appraisal and negatively correlated with risk management oversight. Boards with higher ratings for management evaluation and selection were also more likely to award higher percentage of CEO compensation from stock grants and options, rather than cash compensation. We did not find consistent relationships between ratings of board effectiveness and outcomes such as financial performance (panel B), impairments and write-offs, and CEO turnover.

Although these findings suggest that our survey ratings of board effectiveness are related to actual subsequent company outcomes, we interpret these results cautiously. Because these respondents voluntarily opted to provide the name of their company, this sample is likely to be affected by selection bias. Further, the sample size is small, allowing us to control for only a small number of potentially confounding variables. And finally, given the large number of independent variables considered, the reported significant correlations could be attributable solely to chance (Bettis 2012, Goldfarb and King 2016).

6.5. Robustness Checks

Given that our categorization of the diverse survey questions is subjective and open to debate, we reestimated our regressions using constructs for internal board operations derived from a factor analysis (Online Appendix Table A-4). The analysis generated four factors, corresponding to meeting structure and communication; collegiality, alignment, and integration; training, evaluation, and norms; and time management and board composition.[11] The results, shown in Online Appendix Table A-5, are consistent with our main results that show a strong positive relation between each of the constructs for internal operations and perceptions of board effectiveness.

Since our survey was conducted globally for public and private firms, we examine findings for privately owned firms in the United States and both publicly and privately owned firms outside of the United States. As shown in Online Appendix Table A-6, consistent with our main sample, ratings of internal board operations are also strongly associated with perceptions of board effectiveness for private U.S. firms and for non-U.S. public and private firms.

As an alternative to our use of marker variables as controls for potential halo effects, we used a two-stage method to account for possible halo effects on the dependent and independent variables. In the first stage, individual responses for each question were regressed on the two marker variables and residuals were estimated. We then computed the board effectiveness and internal board operations constructs by averaging residuals for all questions relevant to each construct. For example, the residual management evaluation and selection construct is the average of residuals for all survey questions on HR/talent management, compensation, CEO evaluation, and CEO succession planning. In the second stage, mean residuals for each board effectiveness construct were regressed on mean residuals for the four internal board operations constructs, as well as board, director, and company variables. Finally, we used a bootstrap method to adjust the second-stage standard errors for noise introduced through the first-stage estimation. The unreported estimates show an economically and statistically significant positive relation between residual board effectiveness constructs and residual internal board operations constructs, consistent with our main findings.

7. Discussion and Conclusion

The organizational behavior literature on team effectiveness has long recognized that a team's performance is affected by the engagement and interactions of its members, as well as team management and governance. Boards of directors are teams and, therefore, their performance is likely to be affected by many of these factors (Murphy and McIntyre 2007). Yet given data limitations, most research has not directly analyzed how boards operate internally and how these factors shape board effectiveness. To address this gap, we use survey data on U.S. public company directors' perceptions of their boards' effectiveness and internal operations. We contribute to the corporate governance literature by empirically establishing the relation between perceptions of internal board operations and board effectiveness, and use our findings to provide several concrete suggestions for future research.

Most respondents perceived that their boards were highly effective in overseeing risk management, and somewhat less effective in guiding and appraising strategy and in evaluating and selecting management. Yet despite relatively high ratings for many areas of board oversight, respondents recognized a number of areas of concern. In overseeing risk management, few directors were confident about their boards' review of cybersecurity risks. In strategy appraisal, many raised questions about the board's ability to provide guidance on technology, innovation, global expansion, and M&A. And in management evaluation and selection, their ratings were particularly low on CEO succession planning and the evaluation of future management talent.

Responses to questions on internal board operations show that respondents generally perceived that their boards had highly engaged members, highly functioning interpersonal relationships (both between directors and between directors and management), and effective board meetings. Ratings of boards' internal governance practices, however, were lower, notably on evaluating individual directors, addressing problematic directors, and providing training for new members.

Finally, multivariate analyses documented a strong positive relation between all three board effectiveness constructs and each of the internal board operations constructs, even after controlling for board and company characteristics, individual director characteristics, and for halo effects that potentially contaminate ratings for all questions from the same respondent. These findings suggest that factors found to be associated with team effectiveness in other settings are also highly applicable to the corporate governance context, and that relying solely on externally observable board and director characteristics to explain governance effectiveness may neglect much of the variation in board performance.

Our efforts to examine this under-researched topic are, nonetheless, exploratory and preliminary. The correlations do not prove causality. Survey data are subject to concerns about subjectivity and response biases. The construction of our board effectiveness and internal operations constructs are subjective, and therefore open to question, and our efforts to control for any halo effects for respondents may be imperfect. Nevertheless, we see our findings as creating opportunities for future research.

7.1. Future Directions

Our multivariate findings suggest that integrating measures of internal board operations and processes (such as measures of director preparation for meetings, board committee meeting and reporting structures, and procedures for addressing problematic directors) into empirical corporate governance research is likely to be fruitful. Future studies could also examine external signals of poor internal operations. For example, are widespread board or committee turnover, board criticism by an activist or large shareholder, and director dissension on key topics (see Jiang et al. 2016) indicators of problematic internal board operations?

Although these data can be challenging to collect on a large scale, a number of opportunities exist. Researchers have recently succeeded in collecting extraordinarily granular data on the time use of CEOs (Bandiera et al. 2018, 2020; Porter and Nohria 2018); a similar process could be used to collect data on time management and patterns of director interactions during board meetings. Researchers could also collaborate with industry associations, consultants, and executive education programs to gain access to data on individual director preparedness and performance from board assessments, which the majority of boards conduct (80% of our survey respondents report conducting director performance evaluations). Additional studies that use survey data, particularly surveys that collect nonanonymized responses (thus allowing direct linkages to archival data) or that collect responses from multiple directors from the same board (thus allowing for the collection of independent and dependent variables from separate respondents), could also further advance research.

Consistent with prior work that establishes that governance structures are chosen endogenously in response to governance issues (Adams et al. 2010), our findings also suggest that there are opportunities for future research on variation in how and why boards adopt and implement new operational and internal governance processes. This can both deepen our understanding of the impact of these processes on board performance, and also assess whether they are signals of previous operational problems. For example, interviewees from our study note that some boards use externally conducted board assessments, others use internal assessments, and yet others use no form of self-assessment. What factors underlie changes in these choices? How effective are external versus internal assessments for improving board operations and governance? Tracking changes to publicly available corporate governance charters over time could inform our understanding of these adoption processes.

Our qualitative findings also suggest opportunities to deepen our understanding of how board processes impact CEO succession and CEO compensation. For example, both quantitative and qualitative findings show that many boards struggle to effectively handle powerful CEOs who refuse to engage in succession planning or their own retirement. To expand upon research that examines the effect of board characteristics on CEO turnover (e.g., Hermalin and Weisbach 1998, Goyal and Park 2002, Kaplan and Minton 2012), researchers could use textual analysis of proxy statements and press releases to examine how disclosures on CEO succession planning processes are associated with succession outcomes. To complement existing work that examines components of CEO compensation and excess CEO compensation (e.g., Boyd 1994, Core et al. 1999, Chhaochharia and Grinstein 2009), researchers could explore the role and effect of compensation consultants, compensation metrics, and compensation committee processes used to set CEO rewards, through surveys, research partnerships with consultants, or detailed analysis of proxy statement disclosures (e.g., Murphy and Sandino 2019).

Our findings suggest that there are wide differences in perceptions of effectiveness in areas such as oversight of cybersecurity risks, and guidance on technology, innovation, global expansion, and M&A, making each a rich area for further study. What drives effective and ineffective board decisions and performance in each of these areas? How do board efforts impact firm performance? Targeted data collection on board committee charters and activities, directors' job histories and experiences, and outcome measures directly linked to these areas could help advance our understanding of these particular board challenges.

Our qualitative evidence highlighted directors' concerns around the expanding expectations placed on boards, and the limits to board capabilities and duties. To further the literature on board characteristics and firm-level strategic change (e.g., Goodstein et al. 1994, Westphal and Fredrickson 2001, Miller and Del Carmen Triana 2009, Haynes and Hillman 2010), researchers could conduct qualitative analyses to examine the trade-off between short-term performance and long-term strategy, or how boards draw the line between advising management on strategy and setting strategy. Other questions relate to how boards substitute for or complement existing director capabilities with external consultants and experts. As reported by survey respondents, risk and audit committees that are engaged in the oversight of cybersecurity risk appoint new committee members with cybersecurity knowledge, create advisory boards of IT experts, or hire external consultants to support and educate the board, whereas unengaged firms have yet to address this challenge. How do these choices shape board performance? What processes are followed to help boards provide effective oversight for companies with complex business models? When does firm scope and complexity become detrimental to effective governance?

Finally, our findings have implications for regulators and governance raters by identifying some of the limitations of rules and observable metrics for improving governance. For example, recent regulations (such as the Sarbanes-Oxley Act) have expanded requirements around director independence, and many governance ratings use the proportion of independent directors as a marker of governance quality. However, our results suggest that director independence plays a relatively modest role in explaining perceptions of board effectiveness relative to how boards actually operate—the engagement of their members, the relationships they have with one another and with the CEO, how they manage their meetings, and how they are governed. Yet it is difficult to regulate these board attributes or for raters to assess them using widely available public data. This study provides a first step toward quantifying and analyzing these attributes on a broad scale.

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Endnotes

[1] Adams (2009) also uses survey methodology to study directors' perceptions of their roles and their relationships with management. Her survey of directors of Swedish companies finds that directors that see themselves as focusing more on monitoring CEOs tend to say less in the boardroom, get asked less by the CEO for their advice, and have a weaker personal relationship with management.

[2] This survey expanded upon a trial survey and survey wave that were conducted in 2011 and 2012, respectively.

[3] This response rate is similar to other large-sample studies that have surveyed CFOs, where response rates have ranged from 5.4% to 9% (Graham and Harvey 2001, Graham et al. 2005, Dichev et al. 2013).

[4] Directors can serve on multiple public, private, and nonprofit boards across different countries. Since we do not specify particular boards as the focus of their survey responses, we cannot compute meaningful response rates by country or type of board.

[5] One potential concern is that we could have received multiple responses from directors from the same company, affecting the independence of the survey responses and our statistical inferences. To test for this possibility, we sort the data on industry, board size, and board composition to identify responses that could potentially be from multiple directors for the same company. This approach identified 126 responses (for 60 companies) from the same board. To examine whether these potentially repeat observations influence our results, we repeated our tests using the average response per company. The results are similar to those reported.

[6] Another option is to collect field data on specific companies (e.g., Vancil 1987, Lorsch and MacIver 1989), but these studies raise even more questions about generalizability.

[7] This survey was distributed to 8,071 directors identified from the CapitalIQ database, from a global executive search firm's contact database, and from a nonprofit board membership organization (the distribution list was smaller in scope but similar in nature to the distribution list of the present survey); the survey received 879 responses.

[8] These three responsibilities closely align with the responsibilities of the board, as laid out by the OECD in its principles of corporate governance: "The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders" (G20/OECD 2015, p. 45).

[9] Boards typically delegate the oversight of risks to various committees, including the audit committee, a risk or finance committee, and even the compensation committee (for considering how compensation impacts risk).

[10] In contrast, the true enjoyment respondents receive from serving on the board could be corelated with components of responses on board operations, notably their ratings of board relationships and meeting management.

[11] The rotated factor output is shown in Online Appendix Table A-4, along with the survey questions underlying each factor variable.

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