Directors' decision-making involvement on corporate boards[1]

Seoyoung Kim[2]

June 2017

Abstract

Using the full set of committee memberships for the directors of Fortune 100 firms (which I collect from annual proxy statements), I introduce a measure to capture the extent of a director's involvement in discussion and decisions that affect corporate strategy. I document substantial variation in directors' decision-making involvement both within and across boards, and I provide evidence that this more nuanced and systematically available measure yields more powerful and better specified tests in examining the link between board composition, accounting performance metrics, and shareholder value. Overall, I argue that incorporating these differences in decision-making power has important implications for studies in corporate governance.

JEL Classification: G3, G34, G38, M40, M48

Keywords: committee involvement, board committees, board of directors

[1]I thank Tarun Chordia, David Denis, Diane Denis, Mara Faccio, Byoung-Hyoun Hwang, Rahsan Inget, Narasimhan Jegadeesh, Ronald Masulis, John McConnell, Shehzad Mian, Josh Pollet, Alessio Saretto, Jay Shanken, Laura Starks, Jin Xu, and seminar participants at the CRSP Forum, Emory University, Indian School of Business, Ohio University, and Santa Clara University.

[2]Leavey School of Business, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95053. Email: srkim@scu.edu.

Corporate directors are not equally involved in guiding and monitoring corporate strategy. In this paper, I introduce a metric to examine these differences in decision-making participation, both within and across boards, and I highlight its relevance to studies concerning boards of directors, which generally abstract from this variation in decision-making involvement and make the simplifying assumption that directors participate equally.

Boards of directors are of fundamental interest and importance to policy makers as well as academics along a broad array of disciplines, spawning literature across the areas of accounting, finance, law, organization, and strategy. However, empirical challenges lie in how to operationalize this complex entity that is inherently difficult to capture with readily available structural metrics (Larcker, Richardson, and Tuna, 2007). My purpose is to construct a more nuanced yet broadly observable measure to better capture these complexities and to organize evidence suggesting an important aspect to consider in studying matters pertaining to board of directors: namely, the substantial differences in directors' actual decision-making participation, both within and across boards.

Specifically, I construct a detailed dataset on the full array of board committees (and memberships thereof), collected from annual proxy statements of Fortune 100 firms from 1996 to 2006, to get a closer look at the nature and extent of each director's decision-making involvement. According to practitioners, most of the board's work is done in specialized committees (Lorsch and MacIver, 1989; Adams, 2003). These committees meet separately to discuss and decide various issues, which are then presented, in summary, to the full board. Remarkably, the detailed board minutes of a group of eleven Israeli firms reveal that the full board is presented with only one option in 99% of cases, and voting outcomes are unanimous 97% of the time (Schwartz-Ziv and Weisbach, 2013). In fact, a survey

conducted by McKinsey in 2013 found that only 34% of directors "agreed that the board on which they served fully comprehended their companies' strategies", and only 22% "said their boards were completely aware of how their firms created value" (Barton and Wiseman, 2015), pointing to the exclusionary effect of a focused committee in isolating discussion, information, and decision-making.

Overall, these accounts suggest that a directorship, per se, does not provide equal opportunity to participate in the decision-making process; rather, it is a director's *committee memberships* that indicate the extent of his decision-making involvement and opportunity to affect the firm, more so than his simple presence on the board. That is, a director who is a member of the board's Acquisitions, Finance, and Executive Committees is in a greater position to guide and monitor the firm's activities than a director who is not involved in any committees, since the latter's participation in key discussions and discovery is limited.[3]

In my sample, I observe that the average director sits on 38% of his board's committees. This level of committee involvement varies substantially both within and across boards, with 13% of director-firm-years having no committee involvement whatsoever. Thus, considering the entire range of decision-making involvement (and the process by which directors are apportioned decision-making involvement) allows us a deeper look into corporate boards and their effect on various outcome metrics, providing a finer-tuned yet systematically available and (relatively) easy-to-identify measure for use in broad-scale economic, accounting, finance, or organizational analysis.

[3] In fact, some governance experts have opposed "the practice of creating focused strategy committees on the board that are similar to the committees on audit or risk" for this very reason: "We agree with Walker [chairman of the board at Barclays], who told us 'Strategy is the fundamental challenge of the organization, and it should engage the entire board' (Barton and Wiseman, 2015).

The dataset that I construct is distinct from that provided by the RiskMetrics Directors database, which only provides information on the Audit, Compensation, and Nominating Committees. However, there are many other focused committees that firms choose to maintain, such as the Science and Technology Committee, which guides the firm's strategic direction and investment in research and development, and the Labor Committee, which oversees negotiations with unions and ensures compliance with labor agreements.

To illustrate the importance of considering committee involvement, I re-examine the relation between board composition and firm performance, and I present new evidence regarding board independence requirements, accounting performance metrics, and shareholder value. Although an extensive literature has identified affiliated directors (i.e., those with financial or familial ties) as being associated with weaker monitoring and disciplinary outcomes[4], a greater representation of affiliated directors does not reliably correlate with reduced corporate value or performance (Bhagat and Black, 2002; Hermalin and Weisbach, 2003; Larcker, Richardson, and Tuna, 2007). This lack of association has brought forth hypotheses that these directors fulfill a valuable advisory role (Raheja, 2005; Adams and Ferreira, 2007; Harris and Raviv, 2008), and that firms optimally determine their board compositions based on a calculated tradeoff between advisory and monitoring needs.

[4] Examples include Weisbach (1988), Byrd and Hickman (1992), Brickley, Coles, and Terry (1994), Beasley (1996), Dechow, Sloan, and Sweeney (1996), Cotter, Shivdasani, and Zenner (1997), Mayers, Shivdasani, and Smith (1997), Carcello and Neal (2000, 2003), Dahya, McConnell, and Travlos (2002), Klein (2002), Farber (2005), Vafeas (2005), Masulis, Wang, and Xie (2007), Paul (2007), Chhaochharia and Grinstein (2009), Collins, Gong, and Li (2009), Chen, Lu, and Sougiannis (2012), and Yetman and Yetman (2012). Related empirical work suggests that affiliated directors have an adverse affect on their firms' credit ratings (Ashbaugh-Skaife, Collins, and LaFond, 2006) and cost of debt capital (Anderson, Mansi, and Reeb, 2004)

At the same time, there remains the possibility that using a simple fraction to characterize the extent of board affiliation clouds meaningful information, and thus, lacks the power to detect whatever relation between performance metrics and director characteristics there may be. For instance, in examining affiliated directors' overall representation on the board, the implicit assumption has been that directors are equally involved in making decisions that ultimately guide and monitor corporate policy. However, although affiliated directors' average committee involvement tends to be low, the extent of their involvement varies widely across boards, ranging, in my sample, from 0% to 67% of the board's committees.

To illustrate, consider the boards of Chrysler Corp. and Georgia Pacific Corp. According to their 1996 annual proxy statements, Chrysler's board had 14 directors, seven of whom had financial or familial ties to the firm, and Georgia Pacific's board had 12 directors, six of whom had financial or familial ties. Both boards maintained five standing committees. Thus, from the onset, both firms are identical with regard to the extent of board affiliation. However, in Chrysler's board, four of the seven affiliated directors were not involved in any board committees. On the other hand, every affiliated director of Georgia Pacific's board was a member of at least one committee, and on average, each affiliated director was involved in 37% of the board's committees.

When focusing on the actual decision-making power of these directors (and not just their presence on the board), I find that the extent of affiliated directors' committee involvement is substantially and negatively associated with firm value and subsequent operating performance metrics. This strong, negative association is in contrast to previous studies that find no reliable association between firm performance and the presence of affiliated directors on the board.

Furthermore, in examining when affiliated directors tend to be involved, I find that the extent of their committee memberships is substantially determined by the CEO's direct involvement in apportioning committee assignments (more so than by factors characterizing the economic needs of the firm). Generally, affiliated directors are involved in 30% of the board's committees when the CEO is directly involved in apportioning committee assignments, as opposed to 19% of the committees when he is not, and this difference persists when accounting for industry- and firm-specific characteristics.

An important consideration when interpreting these results is that governance attributes are not exogenously determined. Thus, while the results lend themselves to the interpretation that affiliated directors are not efficiently employed, alternative interpretations remain. For instance, firm performance itself may influence the director-selection process (Hermalin and Weisbach, 1998), and the possibility remains that some (likely time-varying) omitted factor is driving the negative relation between firm performance and affiliated directors' involvement. Moreover, that the CEO's control over committee assignments is associated with a greater committee involvement for affiliated directors, does not preclude the possibility that the CEO, with his superior information set, is simply better aware than others of the expertise that affiliated directors possess.

All interpretations point to the importance of considering the extent of directors' decision-making involvement and, thus, are of similar interest for the sake of this study. Nevertheless, given the ongoing debate concerning the merits of affiliated directors, I attempt to disentangle the relative importance of these alternative interpretations in ensuing analyses. Specifically, I exploit a regulatory change in the 2002-2003 time period, which introduced a negative shock to the CEO's control over apportioning committee assignments. If affiliated directors were

efficiently employed, then this negative shock to the CEO's control should not alter their use on the board's unregulated committees (i.e., those free from membership restrictions).

Because other general changes may accompany this regulatory shock, a simple pre- versus post-regulation comparison of committee compositions does not provide a well-specified test of whether directors were inefficiently employed. For instance, optimal board composition may also have changed during this time, and firms may generally become reluctant to employ affiliated directors in times of greater public scrutiny. Thus, I employ a difference-in-difference approach, comparing the pre- and post-regulation committee compositions of the firms which, prior to 2003, had allowed the CEO to be involved in apportioning committee assignments (*Prior-Involvement* firms) against those that had not (*Non-Prior-Involvement* firms). By comparing the post-regulatory changes in the *Prior-Involvement* group to the post-regulatory changes in the *Non-Prior-Involvement* group, I account for the other general changes accompanying this regulatory shock. Overall, I find that affiliated directors' representation on the committees of *Prior-Involvement* firms decreases substantially compared to *Non-Prior-Involvement* firms, suggesting that the CEO's mandated exclusion from apportioning committee assignments leads to a decline in the presence of affiliated directors on the board's committees.

Collectively, the evidence presented in this paper points to the importance of considering the variation in directors' decision-making power and the process by which directors are apportioned decision-making power. As such, this broadly observable metric of decision-making involvement should prove to be useful to future work and ongoing discussions concerning the implications of board composition and regulatory constraints thereon (e.g., Beasley, 1996; Dechow, Sloan,

and Sweeney, 1996; Klein, 1998, 2002, 2003; Bhagat and Black, 2002; Hermalin and Weisbach, 2003; Farber, 2005; Vafeas, 2005; Chhaochharia and Grinstein, 2007; Coles, Daniel, and Naveen, 2008; Linck, Netter, and Yang, 2008; Linck, Netter, and Yang, 2009; Dhaliwal, Naiker, and Navissi, 2010; Faleye, Hoitash, and Hoitash, 2011; Srinidhi, Gul, and Tsui, 2011).

This paper also adds to the academic literature examining board composition and the director-selection process, in general (e.g., Hermalin and Weisbach, 1998; Shivdasani and Yermack, 1999; Carcello, Neal, Palmrose, and Scholz, 2011; Clune, Hermanson, Tompkins, and Ye, 2014), by studying not only the composition of the board but also the nature and extent of a director's employment on the board once he has been appointed. Furthermore, this paper provides some interesting and unique summary statistics regarding the various types of committees that firms choose to maintain, and thus adds to studies examining subordinate board structures (Reeb and Upadhyay, 2010).

To be sure, much work is needed before arriving to more definitive conclusions concerning the desirability of independence requirements or whether boards are efficiently composed. Overall, using a simple fraction to characterize the extent of board affiliation clouds meaningful information, and a measure that is slightly more nuanced and powerful is required to understand whatever relation between firm performance and director characteristics there may be. This paper proposes a readily observable measure that attempts to characterize these complexities in a way that is easy to quantify, and organizes evidence suggesting its value and importance in studying matters pertaining to boards of directors.

This paper is organized as follows. In Section 1, I present competing theories, hypotheses, and testable implications. In Section 2, I describe my data sources, and I discuss my main measures; in Section 3, I present summary statistics on board

committees and directors' committee involvement; in Section 4, I examine the implications of considering the extent of directors' decision-making involvement in tests examining the link between board composition and corporate performance; in Section 5, I provide additional analyses concerning the determinants of directors' decision-making involvement; and in Section 6, I discuss and conclude.

1. Hypothesis Development and Testable Implications

In this section, I present competing hypotheses and the testable implications that arise.

1.1. The Pros and Cons of Affiliated Directors: Economic-Needs versus Rubber-Stamp Hypotheses

Amidst high-profile corporate scandals, NYSE and NASDAQ listing standards have responded by requiring that at least half of a board's directors be financially and familial-ly independent of the firm, under the basic premise that affiliated directors are less likely to be objective monitors. For instance, an insider's career concerns and proximity to the CEO make it difficult to remain independent minded, and similarly, the objectivity of a supplier to the firm may be colored by his financial dependence on his contracts with the firm. To this effect, numerous studies have provided evidence linking affiliated directors (i.e., those with financial or familial ties) to weaker monitoring and disciplinary outcomes across a broad arena of corporate decisions, including acquisition decisions, executive compensation design, financial

statement fraud, earnings management activity, internal control issues, and beyond.[5]

However, if affiliated directors bring specialized skills or expertise to the firm that independent outsiders cannot, then firms face a tradeoff between their advisory versus monitoring needs in determining the optimal composition of their boards. That is, the agency pitfall to allowing insiders on the board is possibly offset by the intimate knowledge and specialized advice they offer (Klein, 1998; Raheja, 2005; Coles, Daniel, and Naveen, 2008; Harris and Raviv, 2008; Linck, Netter, and Yang, 2008). Similarly, a provider of financial services to the firm may fulfill an advisory role that counters the independence concerns arising from his business relationship with the firm, and in general, management may be more willing to share information with those directors who are less likely to discipline them (Adams and Ferreira, 2007).

Specifically, a firm's size, age, and diversification characterize its complexity in terms of organization, finances, and scope of operations (Coles, Daniel, and Naveen, 2008; Linck, Netter, and Yang, 2008); thus, such firms may benefit more from involving directors from outside sources than from involving insiders. On the other hand, greater stock-return volatility, capital expenditures, and research-and-development intensity, may suggest a need for more inside director involvement, because they characterize a firm's complexity in terms of information asymmetry

[5] Examples include Weisbach (1988), Byrd and Hickman (1992), Brickley, Coles, and Terry (1994), Beasely (1996), Dechow, Sloan, and Sweeney (1996), Cotter, Shivdasani, and Zenner (1997), Mayers, Shivdasani, and Smith (1997), Carcello and Neal (2000, 2003), Dahya, McConnell, and Travlos (2002), Klein (2002), Farber (2005), Masulis, Wang, and Xie (2007), Paul (2007), and Chhaochharia and Grinstein (2009).

and the need for more specialized, firm-specific knowledge (Linck, Netter, and Yang, 2008; Raheja, 2005). Levered firms depend more on outside resources (Coles, Daniel, and Naveen, 2008), and thus, may accrue greater benefits from involving financially affiliated outsiders (for instance, bankers on corporate boards provide access to financing (Guner, Malmendier, and Tate, 2005)). Overall, these arguments suggest that affiliated directors' committee involvement may reflect the firm's economic needs rather than poor governance.

Ultimately, given the inherent agency problems when control is separated from ownership (Fama and Jensen, 1983), there is no guarantee that affiliated directors are appointed for or used in an advisory capacity.[6] For one, they may be placed on committees, such as the Audit or Compensation Committees, which predominantly entail monitoring functions. Moreover, their employment on other committees, such as the Finance or Pension Management Committees, may be more for their lack of independence than for their specialized knowledge. For instance, the Finance Committee's responsibilities entail not only a potential advisory function but also a monitoring role, and the benefits of an affiliated director's expert advice in setting dividend policy or in procuring external financing may be outweighed by his lack of objectivity in approving large capital expenditures. Likewise, an affiliated director's advisory value to the Pension Management Committee may be outweighed by his lack of objectivity in monitoring adequate funding levels to meet future obligations, and his lack of

[6] Furthermore, with regard to firm-specific information, affiliated directors are not necessarily better equipped to fulfill a firm's advisory needs, since independent directors' trading performance suggests that they also possess value-relevant knowledge (Ravina and Sapienza, 2010).

objectivity may similarly compromise his decision-making in other committees of the board as well.

Thus, whether affiliated directors are primarily employed in an advisory capacity (as suggested by the economic-needs hypothesis) or more for their lower monitoring effectiveness (as suggested by the rubber-stamp hypothesis) is an empirical question, attracting attention from academics and practitioners alike. I now proceed to describe testable implications using measures of a director's actual decision-making involvement on the board, thus posing a new look at this important and often contentious topic.

1.2. Testable Implications

Directors are not equally involved in making decisions that guide and monitor the activities of the firm. Strikingly, detailed board minutes have revealed that the full board is presented with only one option in 99% of cases (Schwartz-Ziv and Weisbach, 2013), and according to practitioners, the substance of a board's work is carried out in specialized committees that meet separately to discuss and decide the various issues at hand (Lorsch and MacIver, 1989; Adams, 2000). That is, a director who is a member of the board's Audit, Finance, and Executive Committees has more decision-making power and is in a greater position to monitor and advise the CEO than a director who is not involved in any committees.

Thus, I study affiliated directors' involvement in the board's committees, which conveys important information as to whether these directors are primarily employed for their compliance than for their expert advice. The actual decision-

making involvement of affiliated directors can vary widely across boards. Aside from regulatory constraints barring affiliated directors from certain roles on the board, little is known about what determines when certain directors are endowed with greater decision-making involvement. Is this outcome primarily motivated by the economic needs of the firm, or rather, by management's desire for a more passive board?

I focus on affiliated directors to demonstrate the use of my measure since a contentious topic in the last decade (punctuated by the tightened listing standards regarding the presence and role of affiliated directors on the board) has involved the potential benefits to having these affiliated directors on the board. Given that the number of affiliated directors is now capped from above, if a CEO opportunistically employs these directors and wishes to empower them as a group, it would be difficult for him to bring in more affiliated directors, but he can endow the existing affiliated directors with greater decision-making involvement. From this, several testable implications arise.

First, if affiliated-director involvement is based on a calculated tradeoff of the specialized economic needs of a firm, then accounting for industry- and firm-specific economic conditions, the extent of their participation in the board's committees should be invariant to the CEO's control over committee assignments.

Nonetheless, it may be the case that the CEO is more aware than others of the expert advice that these affiliated directors provide. Moreover, the extent of affiliated directors' committee involvement may be associated with a greater advisory need not adequately captured by general industry and firm

characteristics. Thus, I also examine the association between firm performance and the extent of affiliated directors' involvement in the board's committees. Although prior studies have not established a reliably negative association between measures of firm performance and the fraction of affiliated directors on the board (Hermalin and Weisbach, 1991; Bhagat and Black, 2002; Hermalin and Weisbach, 2003), examining the extent of their (actual) involvement increases the power of tests trying to assess their role on the board. If it is the case that affiliated directors' involvement primarily reflects an economic need (or if affiliated directors have an advisory value recognized only by select boards), then there should be no relation (or possibly a positive relation) between firm performance and the extent of these directors' committee involvement.

Furthermore, I examine how the CEO's control over the committee-assignment process affects individual committee compositions. If the CEO is acting in shareholders' interests, then, irrespective of the firm's advisory needs, he should not endow affiliated directors with membership in committees such as the Audit and Compensation Committees, which primarily entail monitoring and disciplinary functions.

Finally, I examine the changes in affiliated directors' committee involvement with respect to the regulatory changes surrounding 2003. In August 2002, the New York Stock Exchange filed amendments with the Securities and Exchange Commission, proposing new listing standards with regard to corporate governance practices. In particular, membership restrictions were placed on the Governance Committee, thereby disallowing the CEO's direct control over committee

assignments. On one hand, if affiliated directors were efficiently employed, there should not be a decrease in their presence on non-regulated committees (i.e., the committees that remain free from independence requirements and other regulatory constraints) attributed to this shock.

Still, the possibility remains that a general shift in the need for affiliated directors' services may accompany the heightened political scrutiny marking this time period. Thus, I also examine the changes in committee composition under a difference-in-difference specification. Specifically, I compare the pre- and post-regulation committee compositions of the firms that had previously allowed the CEO to be involved in apportioning committee assignments (*Prior-Involvement* firms) against those that had not (*Non-Prior-Involvement* firms). Overall, if affiliated directors were, heretofore, optimally assigned, I should not observe a material difference in the change in their representation on the committees of *Prior-Involvement* firms compared to the change in their representation on the *Non-Prior-Involvement* firms surrounding this period.

2. Data description and discussion of measures

In this section, I describe my data sources and regression variables, and I describe the various board committees that firms maintain.

2.1. Sources

I focus on the publicly traded Fortune 100 firms (as declared in 1996). My sample period spans 1996 to 2006 and was determined by the availability of the RiskMetrics Directors database,[7] which begins in 1996.

Although I begin with Riskmetrics to obtain director names, affiliations, and characteristics, the dataset that I construct is distinct from that provided by the RiskMetrics Directors database, which only provides information on the Audit, Compensation, and Nominating Committees. There are many other standing committees that firms choose to maintain, such as the Science and Technology Committee, which guides the firm's strategic direction and investment in research and development, and the Labor Committee, which oversees negotiations with unions and ensures compliance with labor agreements.

For each firm-year, I collect each director's committee-involvement information from annual proxy statements (and occasionally, 10K's) obtained from the Thomson ONE Banker database. When examining individual committees (which I discuss in greater detail further below in Section 2.2), I use committee descriptions to assign a uniform naming convention, because committee names vary across firm-years. For example, the titles "Corporate Governance" and "Nominating" are used interchangeably, and alternative names for this committee include "Board Organization", "Organization Review", "Policy and Organization", and "Director Affairs". Finally, I obtain financial-statement and stock-price data from the Compustat and CRSP databases, respectively.

Of the Fortune 100 firms, three are not publicly traded and an additional four do not have sufficient financial or governance data. My final sample consists of 812 firm-years, with 10,317 director-firm-years and 4,198 committee-firm-years.

[7] Formerly known as the Investor Responsibility Research Center (IRRC) Directors database.

2.2. Director constraints and terminology

Affiliated directors comprise the union of *inside* and *gray outside* directors. A director is an *insider* if he is a current employee of the firm. A director is a *gray outsider* if he is a former employee of the firm (or a subsidiary thereof), a relative of an executive officer, a customer of or a supplier to the company, a provider of professional services, a recipient of charitable funds, or interlocked with an executive of the firm.[8] An interlocking directorate, also known as board cooptation, is a situation in which an executive of firm X is a director at firm Y while an executive of firm Y is a director at firm X. A director is *independent* if he is neither an insider nor a gray outsider.

In terms of membership constraints (summarized in Appendix A), insiders were restricted from the Audit and Compensation Committees throughout my sample period,[9] and by 2003, they were also restricted from the Governance/Nominating Committee. On the other hand, gray outsiders had unrestricted access to all committees until the enactment of Sarbanes-Oxley in 2002, at which point they

[8] Details are available under the RiskMetrics manuals and overviews provided by WRDS. This list of potential affiliations also includes a catchall phrase for any other type of affiliation that poses a potential conflict of interest, because there are a myriad of possibilities that cannot be definitively specified. However, the scope of this catchall is limited to proxy disclosures, and firms are not inclined to report beyond what is explicitly required. Listing standards filed with the SEC specify similar restrictions for director independence.

[9] Some firm-years may have non-zero values with regard to the incidence of insiders on the Compensation Committee, because there are certain compensation-related committees, such as the Compensation Administration Committee, which are grouped together with the Compensation Committee.

were restricted from the Audit Committee,[10] and in 2003, they were also restricted from the Compensation and Governance/Nominating Committees.[11]

2.3. Committees

Firms have a wide range of committees, which I partition into two broad categories: those committees with regulation governing their existence and composition, and those committees without. Each board committee has its own charter detailing its objectives, roles, and responsibilities, of which I provide a brief description below. Please refer to Appendix B for a more detailed account of each committee.

Regulated committees. This group, whose duties predominantly entail monitoring and disciplinary functions, consists of the Audit and Compensation Committees, and is later joined by the Governance/Nominating Committee in 2003. Throughout my sample period, all firms are required to maintain Audit and Compensation Committees, and by 2003, all firms are also required to maintain a Governance/Nominating Committee. These regulated committees also have membership restrictions regarding the types of directors who are allowed membership, as outlined in Appendix A. Among other duties, the Audit Committee is responsible for appointing independent auditors, reviewing audit reports, and ensuring proper internal controls as well as compliance with ethical and legal standards; the Compensation Committee is responsible for reviewing and approving compensation arrangements and performance criteria for officers of the

[10] In 1999, the NYSE proposed amendments to listing standards, specifying that audit committees be composed entirely of independent directors. However, the independence criteria were lax relative to post-SOX standards, allowing some gray outsiders to remain on the Audit Committee.

[11] NYSE and NASDAQ impose complete independence on these committees, with a few special exceptions. AMEX, on the other hand, only highly recommends independence, allowing affiliated directors to participate as long as a majority of the board's independent directors are placed in each of these committees (see http://corporate.findlaw.com/human-resources/sec-approves-amex-corporate-governance-reforms.html). All firms in my sample are listed either in NYSE or NASDAQ.

firm, and occasionally oversees management succession; and the Governance/Nominating Committee is responsible for determining the duties and memberships of the board's committees, recommending practices to evaluate the contributions of individual board members, and considering nominees to fill board vacancies.

Unregulated committees. This group, whose duties entail a mix of monitoring and potential advisory functions, consists of all other committees of the board. The existence and composition of these committees is left to each firm's discretion, bringing forth a broad range of committees across boards. The most common, unregulated committees are the Finance, Social Responsibility, Executive, Pension Management, and Science and Technology Committees (and up until 2003, the Governance/Nominating Committee). Among other duties, the Finance Committee oversees the firm's capital needs, dividend policy, equity and debt issuances, and large capital expenditures; the Social Responsibility Committee oversees matters affecting the firm's reputation, such as charitable contributions, environmental policy, and other such issues where there is public interest in the firm's affairs; the Executive Committee has the authority to convene and make decisions in place of the full board (as permitted by state law) during the intervals between board meetings; the Pension Management Committee establishes and reviews funding strategies, performance, and investment policy of funds invested for retirement plans; and the Science and Technology Committee is responsible for reviewing and advising the board on the firm's strategic direction and investment in research and development and technology. Examples of less commonly occurring committees include the Acquisitions, Classified Business Review, Legal Compliance, and Investments Committees.

2.4. Measuring directors' involvement

I measure an individual director's committee involvement by the proportion of the board's committees of which he is a member. Thus, in calculating the extent of each director's involvement, I treat all board committees equally. Although some committees may have a greater role in guiding and monitoring corporate policy, it is unclear how to identify which committees are more important than others and how to quantify their degrees of importance. Moreover, given the broad, cross-sectional range of board committees (some of which entail very firm-specific functions), the relative importance of a particular committee likely differs across firms. Thus, an equal-weighted measure has the advantages of providing a simple and objective metric of decision-making involvement. Nevertheless, I also explore alternative, value-weighted specifications, as well as the implications of distinguishing between involvement in regulated and unregulated committees.

2.5. Other regression variables

Regression-specific variables are discussed throughout the paper, as necessary. Please refer to Appendix C for a comprehensive list of regression variables and definitions.

3. Board committees and director involvement

In this section, I present summary statistics on board committees and director committee involvement.

3.1. Directors' committee involvement

In Table 1, I present summary statistics on the average committee involvements broken down by various director types. For a given firm-year, directors' involvement

is calculated as the average committee involvement of all directors on the board, where an individual director's committee involvement refers to the proportion of the board's committees of which he is a member. Panel A presents the pooled mean of directors' average involvement across firm-years, and Panel B presents the fraction of director-firm-years who have no committee memberships. Thus, Panel A presents statistics aggregated at the firm-year level (N=812), and Panel B presents statistics at the finer director-firm-year level (N=10,317).

I observe substantial variation in the extent of directors' committee involvement. On average, directors are involved in 38% of their boards' committees, with a 9% standard deviation in directors' average involvement across firm-years (Panel A); 13% of director-firm-years are not involved in any committees (Panel B).[12] Affiliated directors tend to be less involved, which is, in part, a reflection of the regulatory constraints on their board and committee memberships.[13] Affiliated directors are, on average, involved in 20% of their board's committees, with insiders and gray outsiders having average committee involvements of 15% and 23%, respectively.[14] As observed with directors in general, I also observe substantial variation in affiliated directors' committee involvement; the standard deviation in

[12] To explore whether these un-involved director-firm-years are driven by newly elected directors, I compare the newly-elected director-firm-years (N=539) against the seasoned director-firm-years (N=9,778), and I find no material differences between these subsamples. Specifically, 14% of new-elected directors have no committee memberships, compared to the 13% of seasoned directors have no committee memberships.

[13] Nonetheless, affiliated directors have lower presence and participation in committees for which there are no membership restrictions (roughly 40% of a board's committees have no membership restrictions throughout my entire sample period).

[14] Regarding measures calculated at the firm-year level (Table 1; Panel A statistics), some boards do not have any gray outside members (though all boards have at least one insider, and hence, all boards have at least one affiliated director; namely, the CEO). For such boards, gray outsiders' committee involvement is set to zero to convey that the extent of gray-outsider decision-making involvement is zero if there are no gray outsiders on the board. This treatment does not pertain to measures calculated at the director-firm-year level (Table 1; Panel B statistics).

their average involvement across firm-years is 13%, and 34% of affiliated director-firm-years have no committee memberships at all.

Overall, the wide range in committee involvement points to an important source of variation that is overlooked if we examine board composition without considering the actual decision-making power of the directors on the board.

3.2. Board committees

In Table 2, I present summary statistics on committee size, annual meetings, and frequency. Committee sizes hover around five, ranging from an average size of 4.1 members (Science and Technology Committee) to 5.5 members (Social Responsibility Committee). The average committee meets roughly four times per year. The Audit Committee, with an average of 6.3 meetings per year, has the highest annual meeting frequency; though, its high meeting rate is a more recent phenomenon.[15]

With regard to the frequency in which firms maintain various committees, all firms have Audit and Compensation Committees, as required by listing standards, and 95% of firms have a Governance/Nominating Committee, which was not a required committee until 2003. Regarding the unregulated committees, 53% of firms have a Finance Committee, 49% have a Social Responsibility Committee, 65% have an Executive Committee, 35% have a Pension Management Committee, 7% have a Science and Technology Committee, and 20% of firms have at least one committee apart from the aforementioned.

[15] The Audit Committee met an average of 4.7 times per year prior to the enactment of Sarbanes-Oxley, as opposed to 9.2 times annually in the post-regulation period (untabulated).

3.3. CEO, board, and firm characteristics

In Table 3, I present summary statistics on various CEO, board, and firm characteristics. The average board in my sample has 12.6 members, 5.2 committees, and holds 8.7 meetings annually. In 13% of firm-years, the CEO is directly involved in apportioning committee assignments, whereby I define his involvement in accordance with the information set forth in annual proxy statements and committee charters.

According to committee charters, the Governance Committee has the responsibility and authority to determine committee compositions (sample committee charter provided in Appendix D).[16] Furthermore, according to the annual proxy statements of firm-years in which there is no Governance Committee, the entire board, including the CEO, assumes the duties typically charged to this committee. As such, I classify the CEO as involved if either he is a member of the board's Governance Committee or if the board does not maintain a Governance Committee.

4. Implications of considering the extent of directors' involvement on the board

The wide range in directors' committee involvement points to an important source of information that is ignored if we examine board composition without accounting for the differences in directors' actual decision-making opportunity. To illustrate the importance of considering the extent of directors' committee involvement, I begin by re-examining the effect of board composition on firm performance. Although prior studies have not established a reliably negative association between measures of firm performance and the fraction of affiliated directors on the board (Hermalin and Weisbach, 1991; Bhagat and Black, 2002; Hermalin and Weisbach,

[16] See also, Hermanson, Tompkins, Veliyath, and Ye (2012), who, based on surveys, also make this observation regarding the committee selection process (presented in their Table 5).

2003), considering the extent of their decision-making involvement may increase the power of tests trying to assess their role on the board. Thus, I estimate the following pooled OLS regression:

$$Y_{i,t} = \alpha + AffiliatedDirectorInvolvement_{i,t}\beta + X_{i,t}\lambda + Industry_{i,t}\gamma + Year_{i,t}\delta + \varepsilon_{i,t}. \quad (1)$$

$Y_{i,t}$, the dependent variable, represents two measures of firm performance: firm value, measured by a market-to-book variant (*Tobin's Q*), and subsequent operating performance, measured by the firm's return on assets (*ROA*). Following La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2002) and Gompers, Ishii, and Metrick (2003), among others, I calculate *Q* as the market value of assets scaled by the book value of assets, where the market value of assets is calculated as the book value of assets plus the market value of equity minus the sum of the book value of equity and balance sheet deferred taxes.[17] I calculate market values based on stock prices at the end of fiscal-year *t*, and I obtain very similar results when I use stock prices from three months after the end of fiscal-year *t*. I calculate subsequent operating performance as the average operating performance before depreciation scaled by total assets over the subsequent three-year period.[18] I use contemporaneous *Q* because the market incorporates expectations of all future realizations, whereas I use subsequent ROA because conditions affecting profitability may not be immediately reflected in accounting performance measures. *Affiliated Director Involvement*$_{i,t}$ represents the average committee involvement of affiliated directors on the board of firm *i* in year *t*, where a director's

[17] Other studies using Tobin's Q as a measure of firm value include Demsetz and Lehn (1985), Yermack (1996), Daines (2001), Bebchuk and Cohen (2005), Fich and Shivdasani (2006), and Villalonga and Amit (2006).

[18] I use operating income before depreciation to capture profits captured by the firm, irrespective of the leverage choice. My results are robust to calculating return on assets (ROA) using: 1) operating income after depreciation as the numerator, as well as using 2) net income as the numerator.

committee involvement is calculated as the fraction of the board's committees in which he is involved.

In my regression specification, I include a vector of control variables, $X_{i,t}$, guided by prior literature studying this specification. Specifically, in addition to fundamentals such as size, profitability, and investment opportunities, firm value is also a function of factors facilitating the management (or mismanagement) of assets, as indicated by the fraction of affiliated directors,[19] the CEO's pay slice (Bebchuk, Cremers, and Peyer, 2008), the CEO's percentage voting power through share ownership (Morck, Shleifer, and Vishny, 1988), the CEO's direct involvement in director nominations (Callahan, Millar, and Schulman, 2003), the firm's entrenchment index (Bebchuk, Cohen, and Ferrell, 2009), whether the firm is a non-founder controlled family firm (Villalonga and Amit, 2006), whether a majority of independent directors concurrently serve on three or more boards (Fich and Shivdasani, 2006), the size of the board (Yermack, 1996), and whether the firm is incorporated in Delaware (Daines, 2001). I also control for the frequency of annual board meetings, which may be indicative of recent performance problems (Vafeas, 1999), and whether the firm is diversified across multiple business segments, which may have negative value implications (Lang and Stulz, 1994; Berger and Ofek, 1995; Villalonga 2004a; 2004b).

Thus, $X_{i,t}$ consists of the following controls: *log(Board Meetings*$_{i,t}$*)*, *log(Board Size*$_{i,t}$*)*, *No. of Committees*$_{i,t}$, *Fraction of Affiliated Directors*$_{i,t}$, *Non-Founder Family Firm*$_{i,t}$, Busy *Board*$_{i,t}$, *CEO Pay Slice*$_{i,t}$, *CEO Pct Ownership*$_{i,t}$, *CEO Involved*$_{i,t}$, *Entrenchment Index*$_{i,t}$, *DE Incorporated*$_{i,t}$, *log(Assets*$_{i,t}$*)*, *log(Firm Age*$_{i,t}$*)*, $ROA_{i,t}$, $\sigma^2_{i,t}$,

[19] The fraction of affiliated directors is not reliably, negatively associated with firm performance (Hermalin and Weisbach, 1991; Bhagat and Black, 2002; Hermalin and Weisbach, 2003), and in some cases, is even positively associated (Agrawal and Knoeber, 1996; Yermack, 1996).

$Diverse_{i,t}$, and $R\&D/Sales_{i,t}$.[20] $Industry_{i,t}$ and $Year_{i,t}$ are vectors of industry and year dummies, respectively, and *t*-statistics are calculated using White-robust standard errors adjusted for firm-level clustering, which account for heteroskedasticity and serial correlation (Petersen, 2009).

The results, presented in Table 4, show a significantly negative relation between measures of firm performance and affiliated directors' committee involvement. With respect to firm value, the coefficient estimate on affiliated directors' committee involvement is -0.577 (*t*-statistic = -2.31). That is, a 10% increase in their average committee involvement is accompanied by a 0.058 decrease in firm value. Such a decrease would demote the median firm, in terms of *Q*, to the 47th percentile. Similarly, with respect to subsequent operating performance, a 10% increase in affiliated directors' committee involvement is associated with an average, annual decrease of 0.5% (*t*-statistic = -2.70) over the subsequent three-year period.

I make analogous observations when I use alternative weighting schemes to measure the extent of a director's involvement, whereby I take the resources dedicated to a committee, measured by committee size and meeting frequency, as a signal of its relative importance (Adams, 2003). When I value-weight committees by size (Panel B.1), I observe coefficient estimates of -0.670 (*t*-statistic = -2.84) and -0.045 (*t*-statistic = -2.82) in the firm-value and subsequent-ROA regressions, respectively; and when I value-weight committees by annual meeting frequency (Panel B.2), I observe coefficient estimates of -0.492 (*t*-statistic = -1.77)

[20] I observe very similar results when I include the $GIM\ Index_{i,t}$ (Gompers, Ishii, and Metrick, 2003) in place of the $Entrenchment\ Index_{i,t}$, or furthermore, separate out the staggered-board provision from the remaining entrenchment provisions, as in (Bebchuk and Cohen, 2005).

and -0.038 (*t*-statistic = -2.31) in the firm-value and subsequent-ROA regressions, respectively.[21]

A natural question now arises as to whether there is a distinction between affiliated directors' involvement in regulated as opposed to unregulated committees (i.e., the Audit, Compensation, and Governance/Nominating Committees, versus all other committees of the board). Thus, I partition affiliated directors' committee involvement into two separate components: their involvement in the regulated committees versus their involvement in the unregulated committees, such that $Regulated\ Involvement_{i,t}$ + $Unregulated\ Involvement_{i,t}$ = $Affiliated\ Director\ Committee\ Involvement_{i,t}$. The results, presented in Panel B.3, show that both types of affiliated-director involvement are important contributors to the negative association with firm performance. With respect to *Q*, I observe coefficient estimates of -0.749 (*t*-statistic = -1.68) and -0.487 (*t*-statistic = -1.54) on $Regulated\ Involvement_{i,t}$ and $Unregulated\ Involvement_{i,t}$, respectively, and with respect to subsequent *ROA*, I observe coefficient estimates of -0.067 (*t*-statistic = -2.49) and -0.041 (*t*-statistic = -1.74), respectively.

Overall, these results indicate that the extent of committee memberships provides a meaningful metric to gauge directors' opportunity to influence firm decisions and outcomes. As such, these results suggest the importance of considering the full extent of directors' involvement in tests exploring the relation between board composition and various outcome metrics, which not only increases the power of such tests but may also alter the implications derived.

[21] My results are robust to controlling for the overall, average committee involvement of all board members, ensuring that the negative coefficient estimate I observe on the affiliated directors' committee involvement is not simply due to committee involvement per se.

5. Additional analyses

Although the emphasis of this study is on the importance of considering the extent of directors' decision-making involvement, I also explore the mechanisms contributing to the observed negative association between firm performance and the extent of affiliated directors' committee involvement. On one hand, this negative association is consistent with the idea that opportunism, more so than enhanced expertise, characterizes boards in which affiliated directors are given more decision-making power. On the other hand, perhaps some unidentified economic variable is driving the negative association between firm performance and affiliated directors' involvement.

For instance, firms suffering poor performance may (optimally) respond by assigning affiliated directors to more committees if managers are more willing to share information with these directors who are less likely to discipline them (Adams and Ferreira, 2007). Moreover, if affiliated directors are employed for the intimate knowledge and specialized advice they can offer (that independent directors cannot),[22] then firms anticipating problems (not detectable ex-ante in the data) may preemptively apportion more decision-making involvement to affiliated directors, thereby causing a negative association between affiliated directors' committee involvement and subsequent firm performance.

In an attempt to explore the relative importance of these alternative interpretations, I now proceed to examine what determines how directors are apportioned decision-making involvement and the changes that accompany a negative shock to the CEO's control over committee assignments.

[22] As per the economic-needs hypothesis (Klein, 1998; Raheja, 2005; Coles, Daniel, and Naveen, 2008; Harris and Raviv, 2008; Linck, Netter, and Yang, 2008) laid out in Section 1.1.

5.1. Determinants of affiliated directors' committee involvement

Ideally, directors are selected and assigned roles within the board based on economic or expertise-based considerations. To this end, shareholders can vote to elect members of the board, and likewise, to express disapproval thereof (Fischer, Gramlich, Miller, and White, 2009). Nonetheless, shareholders are not directly involved in the nomination process, nor do they determine in what capacity directors are employed within the board once they are elected. To explore when affiliated directors tend to be apportioned greater decision-making involvement, I estimate the following double-censored Tobit model:[23]

$$AffiliatedDirectorInvolvement_{i,t} = \alpha + \beta \times CEOinvolved_{i.t} + X_{i,t}\lambda + Industry_{i,t}\gamma + Year_{i,t}\delta + \varepsilon_{i,t}\,, \quad (2)$$

$CommitteeInvolvement_{i,t}$, the dependent variable, represents affiliated directors' average committee involvement on the board of firm i in year t, which is a continuous variable, that can, in theory, range anywhere between zero and one. *CEO involved* is an indicator that equals one if the CEO is directly involved in apportioning committee assignments (as described in Section 3.3 above), and zero otherwise. $X_{i,t}$ is a vector of firm-specific economic characteristics ($log(Assets_{i,t-1})$, $log(Firm\ Age_{i,t})$, $Leverage_{i,t-1}$, $ROA_{i,t-1}$, $\sigma^2_{i,t-1}$, $Diverse_{i,t-1}$, $CAPEX/Assets_{i,t-1}$, $R\&D/Sales_{i,t-1}$) as well as board-specific logistical factors ($log(Board\ Size_{i,t})$, $No.\ of\ Committees_{i,t}$),[24] which may naturally affect directors' workloads, $Industry_{i,t}$ is a vector of industry dummies, and $Year_{i,t}$ is a vector of year dummies.

[23] I employ a double-censored Tobit model, because the log-odds framework (i.e., estimation via fractional logit) is problematic when the dependent variable has a substantial number of observations at either zero or one (Loudermilk, 2007; Papke and Wooldridge, 2008). In my sample, close to 17% of observations (135 firm-years) have values of zero.

[24] I observe very similar results when controlling for the overall average committee involvement, which serves as an alternate to logistical measures (e.g., board size or number of committees) capturing directors' natural workloads within the board.

Because the CEO's direct involvement in apportioning committee assignments is the predominant factor in his power over directors' assignments, I do not include other measures of CEO power. Nonetheless, *CEO involved* remains significant and is the predominant determinant of affiliated directors' involvement when I account for other measures of his power,[25] and in later analyses, I estimate difference-in-difference regressions surrounding the 2003 regulatory shock to the CEO's control over committee assignments.

The results, presented in Table 5, suggest that the CEO's involvement is associated with an 11.0% increase (*t*-statistic = 7.53) in affiliated directors' average committee involvement; that is, accounting for firm- and industry-specific economic factors, affiliated directors are involved in a substantially greater proportion of the board's committees when the CEO is directly involved in committee assignments. To account for the partial mechanical association (by construction of the *CEO involved* indicator) between the CEO's involvement in committee assignments and the extent of affiliated directors' committee participation, I also examine the average committee involvement of non-CEO affiliated directors, wherein I also observe a significantly positive association with *CEO involved* (coefficient estimate = 0.103, *t*-statistic = 4.17).[26]

With regard to firm characteristics, I observe that the extent of affiliated directors' involvement in board committees is also determined, in part, by the economic needs of the firm. However, the magnitudes of association are modest

[25] i.e., whether the CEO of a family firm is a member of the controlling family; whether the CEO doubles as chairman of the board; the CEO's pay slice; the CEO's share ownership / percentage voting control; CEO tenure; the firm's entrenchment index; as well as whether the firm is incorporated in Delaware.

[26] To ensure that the CEO's involvement per se (and not simply the lack of a Governance Committee) is a significant determinant of affiliated directors' committee involvement, I re-estimate my regressions within the subsample of firms that have a Governance Committee, and the results are robust to (and are actually stronger in) this subsample.

compared to that for the CEO's involvement. For instance, leverage is positively associated with affiliated directors' committee involvement, consistent with the notion that levered firms are more dependent on the expertise of financially affiliated outsiders (for instance, bankers on corporate boards may provide access to financing (Guner, Malmendier, and Tate, 2008)). But an increase in leverage from the 50th to the 90th percentile (i.e., an increase of 0.19) is associated with only a 3.0% increase (*t*-statistic = 3.64) in affiliated directors' committee involvement.

I make similar observations when extending my analysis to individual committees, which I present in Table 6. For instance, 21% of Audit Committee members are affiliated directors when the CEO is involved (Panel A) as opposed to 8% when he is not (Panel B); similarly, 57% of Finance Committee members are affiliated directors when the CEO is involved as opposed to 19% when he is not, and 72% of Executive Committee members are affiliated directors when the CEO is involved as opposed to 39% when he is not.

To examine these differences in a multivariate setting, I estimate the following pooled OLS regression:

$$CommitteeComposition_{i,t} = \alpha + \beta \times CEOinvolved_{i,t} + X_{i,t}\lambda + Industry_{i,t}\delta + \varepsilon_{i,t}. \qquad (3)$$

$CommitteeComposition_{i,t}$, the dependent variable, represents the fraction of committee members who are affiliated directors. X consists of the same variables as in regression equation (2), with the exceptions of $log(Board\ Size_{i,t})$ and $No.\ of\ Committees_{i,t}$,[27] which represent logistical factors affecting directors' natural workloads but have no implications for committee compositions. *Industry* denotes a vector of industry dummies. Separate regressions are estimated for each of the Audit, Compensation, Governance/Nominating, Finance, Social Responsibility, Executive, Pension Management, and Science and Technology Committees. As

[27] My results are robust to their inclusion.

before, all *t*-statistics are calculated using White-robust standard errors adjusted for firm-level clustering.

The results, presented in Panel C of Table 6, show a significantly positive relation between the CEO's involvement and the fraction of committee members who are affiliated. For instance, his involvement is associated with an 12.3% increase (*t*-statistic = 3.40) in the percentage of affiliated directors on the Audit Committee and a 6.2% increase (*t*-statistic = 2.22) in the percentage of affiliated directors on the Compensation Committee. By definition, the substantial, positive association between the CEO's involvement and the incidence of affiliated directors on the Governance Committee is, in part, though not entirely mechanical; I also observe that the incidence of *non-CEO* affiliated directors on this committee increases from 9% when the CEO is not a member to 24% when he is (untabulated). The CEO's involvement in apportioning committee work is also associated with substantial increases in the incidence of affiliated directors on the unregulated committees, with increases of 36.3% (*t*-statistic = 4.17), 32.3% (*t*-statistic = 3.96), 0.239% (*t*-statistic = 2.61), 9.6% (*t*-statistic = 3.71), and 28.6% (*t*-statistic = 3.11) on the Finance, Executive, Pension Management, Science and Technology, and Remaining Committees, respectively.

Overall, these observations are consistent with the idea that, in addition to economic considerations, affiliated directors are placed on more committees when the CEO is involved in apportioning committee assignments. Moreover, the magnitudes of association indicate that the CEO's control predicts the extent of affiliated directors' involvement more so than economic factors.

Opportunism aside, one possible interpretation is that the CEO better recognizes (than others) the value and expertise of affiliated directors, and thus, assigns affiliated directors greater decision-making involvement when he is in the

position to do so. Similarly, perhaps the CEO's involvement coincides with an omitted variable that provides an economic explanation for the greater decision-making power given to the affiliated directors in these firms. To further explore the mechanisms linking CEO involvement and affiliated directors' decision-making involvement, I now proceed to examine changes in committee compositions after a negative shock to the CEO's control over committee assignments.

5.2. Committee compositions after shock to CEO involvement

The 2002-2003 time period is characterized by heightened regulation on the governance standards for publicly listed firms. One particular amendment, enacted in 2003, imposed membership restrictions on the Governance Committee, thereby disallowing the CEO's control over committee assignments. If affiliated directors were, heretofore, optimally assigned, then they should not be removed from board committees upon this negative shock to the CEO's power.

To examine the changes in committee composition associated with the regulatory shock to the CEO's control, I employ a difference-in-difference specification, comparing the pre- and post-regulation committee compositions of the firms which, prior to 2003, had allowed the CEO to be involved in apportioning committee assignments (*Prior-Involvement* firms) against those that had not (*Non-Prior-Involvement* firms). In doing so, I account for a possible shift in the demand for affiliated directors' services surrounding this period. For instance, optimal board composition may also have changed during this time, or firms generally may have become reluctant to employ affiliated directors. The difference-in-difference specification subtracts these other broad-brush changes by comparing the post-regulatory changes in the *Prior-Involvement* group to the post-regulatory changes in the *Non-Prior-Involvement* group.

Because additional independence criteria were imposed on the Audit, Compensation, and Governance/Nominating Committees during this time, I focus only on the remaining, unregulated committees, and I estimate the following pooled OLS regression:

$$CommitteeComposition_{i,t} = \alpha + \beta_1 \times PriorInvolvement_{i,t} \times Postreg_{i,t} + \beta_2 \times PriorInvolvement_{i,t} + \beta_3 \times Postreg_{i,t} + X_{i,t}\lambda + Industry_{i,t}\delta + \varepsilon_{i,t} \quad (4)$$

$CommitteeComposition_{i,t}$, the dependent variable, represents the fraction of committee members who are affiliated directors. Separate regressions are estimated for each of the Finance, Social Responsibility, Executive, Pension Management, and Science and Technology Committees. $PriorInvolvement_{i,t}$ equals one if (prior to regulatory changes in 2003) the CEO of firm *i* was directly involved in committee assignments, and zero otherwise. $PostReg_{i,t}$ equals one in years greater than or equal to 2003, and zero otherwise. The $PriorInvolvement_{i,t}$ x $PostReg_{i,t}$ interaction term provides the difference-in-difference estimate of interest. $X_{i,t}$ is a vector of the same control variables as in regression equation (3), and $Industry_{i,t}$ is a vector of industry dummies. All *t*-statistics are calculated using White-robust standard errors adjusted for firm-level clustering.

The results, presented in Table 7, show a statistically significant, negative association between the $PriorInvolvement_{i,t}$ x $PostReg_{i,t}$ interaction term and the incidence of affiliated directors on board committees. That is, compared to *Non-Prior-Involvement* firms, affiliated directors' representation on the committees of the *Prior-Involvement* firms decreases by 23.6% (*t*-statistic = -2.75), 11.1% (*t*-statistic = -1.99), 14.5% (*t*-statistic = -2.00), 5.1% (*t*-statistic = -0.92), and 21.1% (*t*-statistic = -2.22) on the Finance, Social Responsibility, Executive, Pension Management, and Remaining Committees, respectively.

These decreases (or differences-in-differences) in affiliated directors' committee representation are not driven by firms' differing needs to meet stricter board independence criteria. The vast majority (91%) of firms in my sample had independent boards even prior to the regulatory changes in 2003 (i.e., more than half of board members were independent directors), and I observe very similar results when I exclude the firms that did not have independent boards as of 2001 (or as of 2002). The significant decreases in affiliated directors' committee representation also cannot be explained by firms' needs to meet the stricter independence criteria on the regulated committees; the findings are robust to excluding the firms which, prior to regulation, had assigned the same affiliated director to either the Audit or Compensation Committee in addition to at least one of the remaining, unregulated committees.

In my last set of analyses, I explore the value implications of the changes in affiliated directors' committee memberships surrounding this regulatory shock. Specifically, I compare the changes in firm value surrounding 2003 of the firms who decrease their affiliated directors' average committee involvement against those who do not. When calculating these changes, I compare the 2000/2001 values against the 2003/2004 values, skipping the year 2002 since firm value may be updated in anticipation of new regulation, which was announced prior to enactment. Then, controlling for changes in the same board and firm characteristics as in regression equation (1), I regress 2000/2001 to 2003/2004 changes in firm value against the corresponding change in the extent of affiliated directors' involvement.

The results, which I present in Table 8, suggest that during this time, a 10% decrease in their affiliated directors' average committee involvement is associated with a 0.196 increase in firm value (*t*-statistic = 1.92). Overall, these results suggest

that a negative shock to the CEO's control effects a shift in affiliated directors' decision-making power, providing further support to the idea that, apart from economic considerations, the CEO's control itself is an important factor contributing to the extent of decision-making involvement assigned to directors.

6. Conclusion

Studies in corporate governance generally make the implicit assumption that directors are equally involved in guiding and monitoring the activities of the firm.[28] However, directors do not participate equally in making decisions that ultimately affect firm policy, and there is wide variation in the extent of each director's decision-making power.

In this paper, I construct a dataset on the full array of board committees (and memberships thereof), and I provide evidence pointing to the importance of considering the extent of directors' committee involvement within the board, which not only increases the power of tests studying the relation between performance metrics and board composition but also highlights the possible different implications derived when considering the entire range of directors' involvement. Specifically, I find that the extent of affiliated directors' committee involvement is substantially and negatively associated with firm value and subsequent operating performance, and I find that affiliated directors are removed from board committees upon a negative shock to the CEO's control over committee assignments.

To be sure, much work is needed before arriving to more definitive conclusions concerning the desirability of independence requirements or whether boards are efficiently composed. This paper introduces a broadly observable metric and organizes evidence suggesting an important aspect to consider in studying

[28] E.g., studies examining how board composition (i.e., fraction of directors who are independent, old, busy, female, etc.) relates to various outcomes and performance metrics

matters pertaining to boards of directors: namely, the substantial differences in directors' actual decision-making power, both within and across boards.

References

Adams, R.B., 2003. What do boards do? Evidence from board committee and director compensation data. Unpublished working paper. Federal Reserve Bank of New York, New York, NY.

Adams, R.B., Ferreira, D., 2007. A theory of friendly boards. *Journal of Finance* 62, 217-250.

Agrawal, A., Knoeber, C.R., 1996. Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis* 31, 377-397.

Almazan, A., Hartzell, J.C., Starks, L.T., 2005. Active institutional shareholders and costs of monitoring: Evidence from executive compensation. *Financial Management* 34, 5-34.

Anderson, R.C., Mansi, S.A., Reeb, D.M., 2004. Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics* 37, 315-342.

Ashbaugh-Skaife, H., Collins, D.W., LaFond, R., 2006. The effects of corporate governance on firms' credit ratings. *Journal of Accounting and Economics* 42, 203-243.

Baker, G.P., Hall, B.J., 2004. CEO incentives and firm size. *Journal of Labor Economics* 22, 767–798.

Barton, D., Wiseman, M., 2015. Where boards fall short. *Harvard Business Review*; January 2015 issue.

Bebchuk, L.A., Cohen, A., 2005. The costs of entrenched boards. *Journal of Financial Economics* 78, 409-433.

Bebchuk, L.A., Cohen, A., Ferrell, A., 2009. What matters in corporate governance? *Review of Financial Studies* 22, 783-827.

Bebchuk, L.A., Cremers, M., Peyer, U., 2011, CEO pay slice. *Journal of Financial Economics* 102, 199-221.

Berger, P.G., Ofek, E., 1995. Diversification's effect on firm value. *Journal of Financial Economics* 37, 39-65.

Beasley, M.S., 1996. Am empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review* 71, 443-465.

Bhagat, S., Black, B., 2002. The non-correlation between board independence and long-term firm performance. *Journal of Corporation Law* 27, 231-273.

Brickley, J.A., Coles, J.L., Terry, R.L., 1994. Outside directors and the adoption of poison pills. *Journal of Financial Economics* 35, 371-390.

Byrd, J.W., Hickman, K.A., 1992. Do outside directors monitor managers? *Journal of Financial Economics* 32, 193-221.

Callahan, W.T., Millar, J.A., Schulman, C., 2003. An analysis of the effect of management participation in director selection on the long-term performance of the firm. *Journal of Corporate Finance* 9, 169-181.

Carcello, J.V., Neal, T.L., 2000. Audit committee composition and auditor reporting. *The Accounting Review* 75, 453-467.

Carcello, J.V., Neal, T.L., 2003. Audit committee characteristics and audit dismissals following "new" going-concern reports. *The Accounting Review* 78, 95-117.

Carcello, J.V., Neal, T.L., Palmrose, Z., Scholz, S., 2011. CEO involvement in selecting board members, audit committee effectiveness, and restatements. *Contemporary Accounting Research* 28, 396-430.

Chen, C.X., Lu, H., Sougiannia, T., 2012. The agency problem, corporate governance, and the asymmetrical behavior of selling, general, and administrative costs. *Contemporary Accounting Review* 29, 252-282.

Chhaochharia, V., Grinstein, Y., 2007. Corporate governance and firm value: The impact of the 2002 governance rules. *Journal of Finance* 62, 1789-1825.

Chhaochharia, V., Grinstein, Y., 2009. CEO compensation and board structure. *Journal of Finance* 64, 231-261.

Clune, R., Hermanson, D.R., Tompkins, J.G., and Ye, Z., 2014. The nominating committee process: A qualitative examination of board independence and formalization. *Contemporary Accounting Research* 31, 748-786.

Coles, J.L., Daniel, N.D., Naveen, L., 2008. Boards: Does one size fit all? *Journal of Financial Economics* 87, 329-356.

Collins, D.W., Gong, G., Li, H., 2009. Corporate governance and backdating of executive stock options. *Contemporary Accounting Research* 26, 403-445.

Cotter, J.F., Shivdasani, A., Zenner, M., 1997. Do independent directors enhance target shareholder wealth during tender offers? *Journal of Financial Economics* 43, 195-218.

Dahya J., McConnell, J.J., Travlos, N.G., 2002, The cadbury committee, corporate performance, and top management turnover. *Journal of Finance* 42, 461-483.

Daines, R., 2001. Does Delaware law improve firm value? *Journal of Financial Economics* 62, 525-558.

Dechow, P., Sloan, R., Sweeney, A., 1996. Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research* 13, 1-36

Demsetz, H., Lehn, K., 1985. The structure of corporate ownership: Causes and consequences. *Journal of Political Economy* 93, 1155-1177.

Dhaliwal, D., Naiker, V., Navissi, F., 2010. The association between accruals quality and the characteristics of accounting experts and mix of expertise on audit committees. *Contemporary Accounting Research* 27, 787-827.

Faleye, O., Hoitash, R., Hoitash, U., 2011. The costs of intense board monitoring. *Journal of Financial Economics* 101, 160-181.

Fama, E.F., French, K.R., 1997. Industry costs of equity. *Journal of Financial Economics* 43, 153-193.

Fama, E.F., Jensen, M.C., 1983. Agency problems and residual claims. *Journal of Law and Economics* 26, 327-349.

Farber, D., 2005. Restoring trust after faud: Does corporate governance matter? *The Accounting Review* 80, 539-561

Fich, E.M., Shivdasani, A., 2006. Are busy boards effective monitors? *Journal of Finance* 61, 689-724.

Fischer, P.E., Gramlich, J.D., Miller, B.P., White, H.D., 2009. Investor perceptions of board performance: Evidence from uncontested director elections. *Journal of Accounting and Economics* 48, 172-189.

Gompers, P., Ishii, J., Metrick, A., 2003. Corporate governance and equity prices. *Quarterly Journal of Economics* 118, 107-155.

Guner, A.B., Malmendier, U., Tate, G., 2008. Financial expertise of directors. *Journal of Financial Economics* 88, 323-354.

Hall, B.J., Liebman, J.B., 1998. Are CEOs really paid like bureaucrats? *Quarterly Journal of Economics* 113, 653–691.

Harris, M., Raviv, A., 2008. A theory of board control and size. *Review of Financial Studies* 21, 1797-1832.

Hermalin, B.E., Weisbach, M.S., 1991. The effects of board composition and direct incentives on firm performance. *Financial Management* 20, 101-112.

Hermalin, B.E., Weisbach, M.S., 1998. Endogenously chosen boards of directors and their monitoring of the CEO. *American Economic Review* 88, 96-118.

Hermalin, B.E., Weisbach, M.S., 2003. Boards of directors as an endogenously determined institution: A survey of the economic literature. *Economic Policy Review* 9, 7-26.

Hermanson, D.R., Tompkins, J.G., Veliyath, R., Ye, Z., 2012. The compensation committee process. *Contemporary Accounting Review* 29, 666-709.

Himmelberg, C., Hubbard, R., Palia, D., 1999. Understanding the determinants of managerial ownership and the link between ownership and performance. *Journal of Financial Economics* 53, 353-384.

Johnstone, K., Li, C., Rupley, K.H., 2011. Changes in corporate governance associated with the revelation of internal control material weaknesses and their subsequent remediation. *Contemporary Accounting Research* 28, 331-383.

Klein, A., 1998. Firm performance and board committee structure. *Journal of Law and Economics* 41, 275-303.

Klein, A., 2002. Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics* 33, 375-400.

Klein, A., 2002. Economic determinants of audit committee independence. *The Accounting Review* 77, 435-452.

Klein, A., 2003. Likely effects of stock exchange governance proposals and Sarbanes-Oxley on corporate boards and financial reporting. *Accounting Horizons* 17, 343-355.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 2002. Investor protection and corporate valuation. *Journal of Finance* 57, 1147-1170.

Lang, L.H.P., Stulz, R.M., 1994. Tobin's Q, corporate diversification, and firm performance. *Journal of Political Economy* 102, 1248-1280.

Larcker, D.F., Richardson, S.A., Tuna, I., 2007. Corporate governance, accounting outcomes, and organizational performance. *The Accounting Review* 82, 963-1008.

Linck, J.S., Netter, J.M., Yang, T., 2008. The determinants of board structure. *Journal of Financial Economics* 87, 308-328.

Linck, J.S., Netter, J.M., Yang, T., 2009. The effects and unintended consequences of the Sarbanes-Oxley act on the supply and demand for directors. *Review of Financial Studies* 22, 3287-3328.

Lorsch, J., MacIver, E., 1989. Pawns or Potentates. Harvard Business School Press.

Loudermilk, M.S., 2007. Estimation of Fractional Dependent Variables in Dynamic Panel Data Models with an Application to Firm Dividend Policy. *Journal of Business & Economic Statistics* 25, 462-472.

Masulis, R.W., Wang, C., Xie, F., 2007. Corporate governance and acquirer returns. *Journal of Finance* 62, 1851-1889.

Mayers, D., Shivdasani, A., Smith, C.W., 1997. Board composition and corporate control: Evidence from the insurance industry. *Journal of Business* 70, 33-62.

Morck, R., Shleifer, A., Vishny, R.W., 1988. Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics* 20, 293-315.

Papke, L.E., Wooldridge, J.M., 2008. Panel Data Methods for Fractional Response Variables with an Application to Test Pass Rates. *Journal of Econometrics* 145, 121-133.

Paul, D.L., 2007. Board composition and correction action: Evidence from corporate responses to bad acquisition bids. *Journal of Financial and Quantitative Analysis* 42, 759-784.

Petersen, M.A., 2009. Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies* 22, 435-480.

Raheja, C.G., 2005. Determinants of board size and composition: A theory of corporate boards. *Journal of Financial and Quantitative Analysis* 40, 283-306.

Ravina, E., Sapienza, P., 2010. What do independent directors know? Evidence from their trading. *Review of Financial Studies* 23, 962-1003.

Reeb, D., Upadhyay, A., 2010. Subordinate board structures. *Journal of Corporate Finance* 16, 469-486.

Schwartz-Ziv, M., Weisbach, M.S., 2013. What do boards really do? Evidence from minutes of board meetings. *Journal of Financial Economics* 108, 349-366.

Shivdasani, A., Yermack, D., 1999. CEO involvement in the selection of new board members: An empirical analysis. *Journal of Finance* 54, 1829-1853.

Srinidhi, B., Gul, F.A., Tsui, J., 2011. Female directors and earnings quality. *Contemporary Accounting Research* 28, 1610-1644.

Villalonga, B., 2004. Does diversification cause the 'diversification discount'? *Financial Management* 33, 5-27.

Villalonga, B., 2004. Diversification discount or premium? New evidence from the Business Information Tracking Series. *Journal of Finance* 59, 479-506.

Villalonga, B., Amit, R., 2006. How do family ownership, control and management affect firm value? *Journal of Financial Economics* 80, 385-417.

Weisbach, M.S., 1988. Outside directors and CEO turnover. *Journal of Financial Economics* 20, 431-460.

Vafeas, N., 1999. Board meeting frequency and firm performance. *Journal of Financial Economics* 53, 113-142.

Vafeas, N., 2005. Audit Committees, Boards, and the Quality of Reported Earnings. *Contemporary Accounting Research* 22, 1093-1122.

Yermack, D., 1996. Higher market valuation of companies with a small board of directors. *Journal of Financial Economics* 40, 185-211.

Yetman, M.H., Yetman, R.J., 2012. The effects of governance on the accuracy of charitable expenses reported by nonprofit organizations. *Contemporary Accounting Research* 29, 738-767.

Appendix A. Summary of regulatory constraints on committee composition

This table summarizes membership restrictions regarding committees of the board. A director is designated *inside* if he is an employee of the firm, or *gray* if he is an outsider (i.e., non-employee) with financial or familial ties to the CEO or to the firm. "Yes" indicates that director X is restricted from committee Y, and "No" indicates that he is not.

	Audit	Compensation	Governance/ Nominating	All other committees
Panel A: Inside director				
2001 and earlier	Yes	Yes	No	No
2002	Yes	Yes	No	No
2003 and beyond	Yes	Yes	Yes	No
Panel B: Gray outside director				
2001 and earlier	No[29]	No	No	No
2002	Yes	No	No	No
2003 and beyond	Yes	Yes	Yes	No

[29] Earlier amendments in 1999 required audit committees to be composed entirely of independent directors, but the relatively lax independence criteria allowed some gray outsiders to remain on the audit committee.

Appendix B. Description of committees

Provided below is a summary account of each committee as described by the committee charters and corresponding abstracts provided in annual proxy statements. Because the same committee has many different titles, some of which differ vastly across firm-years, the committees below have been aggregated and categorized based on their descriptions.

Audit	This committee is responsible for appointing independent auditors (as well as monitoring and safeguarding their independence), reviewing audit reports and the scope and timing thereof, and recommending improvements to existing practices. This committee is also responsible for reviewing the annual report as well as ensuring proper internal controls and compliance with ethical and legal standards.
Compensation	This committee is responsible for reviewing and approving the firm's compensation strategy, compensation arrangements, and performance criteria for officers of the firm. This committee also reviews and retains external compensation consultants, and occasionally, oversees management succession and employee benefits plans.
Governance/Nominating	This committee is responsible for determining the structure, composition, and responsibilities of the board's committees, recommending practices to evaluate the performance and contributions of individual board members, and considering nominees to fill board vacancies. This committee also reviews the overall effectiveness of the board and the firm's governance. The Governance/Nominating Committee generally

operates as a single committee and is very rarely split into a separate Governance Committee and Nominating Committee. Alternative handles for this committee include “Board Organization”, “Organization Review”, “Policy and Organization”, and “Director Affairs”.

Finance — This committee oversees the firm’s capital needs, dividend policy, equity and debt issuances, large capital expenditures, and investment of cash reserves (a few boards maintain a separate Investment Committee for this purpose). This committee also reviews the financial condition of the firm and the financial consequences of proposed changes to the firm’s capital structure.

Social Responsibility — This committee oversees corporate policies on political and public-policy related matters affecting the firm’s operations, performance, and/or reputation. Such matters include charitable contributions, environmental policy, community relations, international affairs, matters regarding gender ethnic, or racial diversity, and other such issues pertaining to public policy or social responsibility. Alternative handles for this committee include “Public Interest”, “Policy and Organization”, and “Ethics and Corporate Responsibility”.

Executive — This committee has the authority to exercise the powers of the full board to manage the company’s business and affairs, as permitted by state law, during the intervals between board meetings.

Pension Management This committee establishes and reviews funding strategies, performance, and investment policy of funds invested for retirement plans. To this end, this committee also oversees the appointment of insurance carriers and investment managers for funds allocated to employee retirement plans and oversees compliance with laws pertaining to employee benefit plans.

Science and Technology This committee is responsible for reviewing and advising the board on the firm's strategic direction and investment in research and development and technology, both internally and externally. This committee is also responsible for identifying emerging technological trends and assessing their potential impact on the firm.

Remaining Committees There are many other types of standing committees that firms choose to maintain, some of which entail very firm-specific functions. Examples include: the Acquisitions Committee, which examines proposed acquisitions and oversees the direction, quality, planning, and execution of such investments; the Legal Compliance Committee, whose duties typically fall under the responsibilities of the Audit Committee but is occasionally commissioned as a separate committee; the Classified Business Reviews Committee, or Special Programs Committee, which oversees the firm's business activities requiring special levels of security clearance for access to information; the Labor Committee, which oversees negotiations and ensures compliance with labor agreements; and (prior to requirements on maintaining regular, executive

sessions), an Outside/Independent Directors Committee, which provided a formal outlet for these executive sessions (i.e., meetings in which independent directors convene in absence of management).

Appendix C. Definition of variables

Presented below is an alphabetized list of additional regression variables with corresponding definitions.

Board Meetings	The number of annual board meetings.
Board Size	The number of board members.
Busy Board	Equals one if a majority of the board's independent directors concurrently serve on three or more boards, and zero otherwise.
CAPEX/Assets	Capital expenditures scaled by total assets. Following Himmelberg, Hubbard, and Palia (1999) and Almazan, Hartzell, and Starks (2005), I set missing values to zero, and I include an indicator variable that equals one when there is a missing value, and zero otherwise.
CEO Involved	Equals one if the CEO is directly involved in apportioning committee assignments, and zero otherwise. According to committee charters, the Governance Committee has the responsibility and authority to determine committee compositions (sample committee charter provided in Appendix D). Furthermore, according to the annual proxy statements of firms that do not have a Governance Committee, the entire board, including the CEO, assumes the duties typically charged to this committee. Thus, I classify the CEO as involved if either he is a member of the board's Governance Committee or the board does not maintain a Governance Committee.
CEO Pay Slice	The fraction of the firm's top five compensation packages captured by the CEO. Total compensation packages are calculated as the sum of base salary, bonus, long-term incentive payouts, the value of restricted stock grants, and the Black-Scholes value of option grants converted into their

	stock equivalents using the options' median delta.[30]
CEO Pct Ownership	The CEO's percentage control of voting power via ownership.
DE Incorporated	Equals one if the firm is incorporated in Delaware, and zero otherwise.
Entrenchment Index	An index ranging from 0 to 6 that accrues one point for each of six provisions (classified board, poison pill, golden parachute, limits to bylaw amendments, super-majority requirements for charter amendments, and super-majority requirements for mergers) that increase managerial power or depress shareholder activism, as proposed by Bebchuk, Cohen, and Ferrell (2009).
Family Firm	Equals one if a single family controls the firm's ownership (i.e., the firm has no other blockholders) and is currently active in top management, and zero otherwise. A *Non-Founder Family Firm* refers to a family firm in which the founder is neither the CEO nor chairman of the board.
Firm Age	Calculated as the number of years from when the firm first appears in CRSP.
Fraction of Affiliated Directors	Calculated as the fraction of board members who are insiders or gray outsiders. A director is designated an insider if he is an employee of the firm, or a gray outsider if he is not an employee but has other financial or familial ties to the CEO or to the firm.
Industry Dummies	Defined using the Fama-French (1997) five-industry classification (because finer classifications result in much sparser partitions, with many categories having only one or two firms). I obtain very similar results whether I use the ten- or 12-industry classifications.[31]

[30] Following Baker and Hall (2004), I use a delta of 0.7, which approximates the median delta in the Hall and Liebman (1998) data.

[31] Obtained from http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.

Leverage	Long-term debt scaled by total assets.
No. of Committees	The number of board committees.
No. of Segments	The number of business segments in which the firm operates.
PostReg	Equals one in years greater than or equal to 2003, and zero otherwise (corresponds with passage of regulatory constraints on CEO's involvement in determining committee assignments)
R&D/Sales	Research and development expense scaled by revenue. As with *CAPEX/Assets* (defined above), I set missing values to zero, and I include a corresponding missing-value indicator.
ROA	Operating income after depreciation scaled by total assets.
σ^2	The firm's past five-year stock-return volatility.
Tobin's Q	A market-to-book variant where the market value of assets is calculated as the book value of assets plus the market value of equity minus the sum of the book value of equity and balance sheet deferred taxes.
Total Assets	The book value of total assets in millions.

Appendix D. Sample Corporate Governance Committee Charter

Sara Lee Corporation

Corporate Governance, Nominating and Policy Committee Charter

Committee Structure and Operations

The Sara Lee Corporation Corporate Governance, Nominating and Policy Committee (the "Committee") shall consist solely of three or more independent Directors who satisfy the independence requirements of the Sarbanes-Oxley Act of 2002 and the rules of the New York Stock Exchange.

The Committee may use the services of outside experts and consultants, including search firms, to identify director candidates and to otherwise assist the Committee. The Committee shall have the sole authority to retain and terminate such experts and consultants and to approve their fees and other retention terms. The Committee may delegate any of its responsibilities, along with the authority to take action in relation to such responsibilities, to one or more subcommittees of the Committee. The Chairman of the Committee will report regularly to the Corporation's Board of Directors (the "Board") on the Committee's activities, findings and recommendations.

Responsibility and Authority of the Committee

The Committee's authority and responsibility are broadly defined to include:

1) assisting the Board in identifying qualified individuals to become Board members and determining the composition of the Board and its committees;

2) recommending changes in Director compensation to the Board;

3) oversight of matters relating to corporate governance, including Board policies, procedures and practices;

4) oversight of the evaluation of the Board and its committees; and

5) oversight of the Corporation's activities and positions on significant corporate social responsibility and public policy issues that impact its employees, investors, customers, consumers and communities.

In accomplishing these objectives, the Committee will:

a) establish and annually review criteria (including, among other things, considerations of diversity, age, specific business, financial and accounting expertise and accomplishments and international background) for Board membership;

b) identify and conduct appropriate and necessary inquiries into the backgrounds and qualifications of possible Director candidates;

c) review and recommend Director nominees for approval by the Board and election by the stockholders, including potential nominees recommended by stockholders;

d) recommend to the Board whether to accept or reject any resignation tendered by a Director, whether due to a substantial change in the Director's principal position, status or employment, the failure of the Director to receive the requisite majority vote at any annual or special election of Directors, or otherwise;

e) maintain a process for rotating Directors among Board committees consistent with the Board's committee rotation guidelines, as may be amended from time to time by this Committee, and recommend committee assignments to the Board;

f) review and recommend to the Board any revisions to the Corporation's governance framework, including the Corporate Governance Guidelines, Charter and Bylaws;

g) maintain and implement a process for reviewing on an annual basis the performance of the Board and each of its committees;

h) annually evaluate the performance of the Committee and the adequacy of its Charter;

i) consider questions of possible conflicts of interest of Board members and of senior management;

j) review and, as appropriate, approve all related person transactions, as such term is defined in Item 404 of the SEC's Regulation S-K, on an ongoing basis, including transactions covered by the Corporation's Related Person Transaction Policy;

k) review and, as appropriate, approve requests of any director to join the board of directors of another company or to become affiliated with another business entity;

l) review the Corporation's policies and procedures, including with respect to employee safety, diversity, sustainability and environmental matters, to ensure that they are consistent with Sara Lee's ethical commitment to its employees, investors, customers, consumers and communities;

m) review the key public policy positions pursued by the Corporation;

n) examine periodically any of the Corporation's business practices that could be susceptible to critical scrutiny by employees, legislators or the public at large; and

o) review the Corporation's policies and practices in support of charitable, educational and business organization.

Table 1
Directors' committee involvement

This table presents the average committee involvement of various director types. My sample consists of the publicly traded Fortune 100 firms (as declared in 1996) from 1996 to 2006. A director is designated *inside* if he is an employee of the firm, or *gray* if he is an outsider with financial or familial ties to the CEO or to the firm. An *affiliated* director is one who is either an insider or a gray outsider. Panel A presents the pooled mean, across firm-years, of directors' average committee involvement. That is, for each firm, I calculate the directors' average committee involvement, where an individual director's committee involvement refers to the proportion of the board's committees of which he is a member; then I take the pooled mean of these averages. Panel B presents the fraction of director-firm-years who have no committee involvement. Standard deviations are presented to the right in parentheses.

Director type	N	Mean	(Stdev.)
Panel A. Average committee involvement (firm-year level)			
All directors	812	0.38	(0.09)
Affiliated	812	0.20	(0.13)
Inside	812	0.15	(0.13)
Gray outside	812	0.23	(0.22)
Panel B. Directors with no committee involvement (director-firm-year level)			
All directors	10,317	0.13	---
Affiliated	2,931	0.34	---
Inside	1,762	0.46	---
Gray outside	1,169	0.16	---

Table 2
Committee size, meetings, and frequency

This table presents average committee sizes and meeting frequencies per year, as well as the frequency in which boards have certain committees. My sample consists of the publicly traded Fortune 100 firms (as declared in 1996) from 1996 to 2006. Asterisks (*) denote committees with membership restrictions. A cross (†) denotes that no membership restrictions were in place until 2003.

	Audit*	Comp.*	Gov./Nom.†	Finance	Social resp.	Executive	Pension	Sci./Tech.	Remaining
Committee size	4.8	4.5	5.1	5.1	5.5	4.6	5.1	4.1	4.8
Meeting frequency	6.3	5.4	3.8	3.7	2.6	1.2	0.8	2.4	3.0
(No. of occurrences)	(812)	(812)	(772)	(432)	(395)	(524)	(283)	(56)	(164)
[% frequency]	[100]	[100]	[95]	[53]	[49]	[65]	[35]	[7]	[20]

Table 3
CEO, board, and firm characteristics

This table presents summary statistics of various committee, board, and firm characteristics for my sample of publicly traded Fortune 100 firms (as declared in 1996) from 1996 to 2006. Panel A presents CEO characteristics, where: *CEO involved* is an indicator that equals one if the CEO is directly involved in apportioning committee assignments, and zero otherwise; *CEO Pay Slice* is the fraction of the top five compensation packages captured by the CEO; and *CEO Pct Ownership* is the CEO's percentage voting power (%) through his share ownership. Panel B presents board and governance characteristics, where: *Board Size* is the number of board members; *No. of Committees* is the number of board committees; *Board Meetings* is the number of annual board meetings; *Entrenchment (BCF) Index* is an index ranging from 0 to 6 that accrues one point for each of six provisions that increase managerial power or depress shareholder activism; *Fraction of Affiliated Directors* is the proportion of the board's directors who are either insiders or gray outsiders; *Non-Founder Family Firm* is an indicator that equals one if the firm is a family firm in which the founder is neither the CEO nor the chairman of the board, and zero otherwise; and *DE Incorporated* is an indicator that equals one if the firm is incorporated in Delaware, and zero otherwise. Panel C presents firm characteristics, where: *Total Assets* is the book value of total assets in millions; *ROA* is the return on assets (i.e., operating income after depreciation scaled by total assets); σ^2 is the five-year stock-return volatility; *CAPEX/Assets* is capital expenditures scaled by total assets; *R&D/Sales* is research and development expense scaled by revenue; *Leverage* is long-term debt scaled by total assets; *Firm Age* is the number of years since the firm first appears in CRSP; *Diverse* is an indicator that equals one if the firm operates in two or more business segments, and zero otherwise; and *Tobin's Q* is a market-to-book variant where the market value of assets is calculated as the book value of assets plus the market value of equity minus the sum of the book value of equity and balance sheet deferred taxes.

Variable	Mean	(Stdev.)
Panel A. CEO characteristics		
CEO involved	0.13	(0.34)
CEO Pay Slice	0.38	(0.12)
CEO Pct Ownership (%)	0.26	(1.68)
Panel B. Board and governance characteristics		
Board Size	12.59	(2.69)
No. of Committees	5.17	(1.31)
Board Meetings	8.67	(2.71)
Entrenchment Index	1.62	(1.24)
Fraction of Affiliated Directors	0.28	(0.16)
Non-Founder Family Firm	0.08	(0.27)
DE Incorporated	0.66	(0.48)

Table 3 continued.

Variable	Mean	(Stdev.)
Panel C. Firm characteristics		
Total Assets (in millions)	107,560	(214,306)
ROA	0.111	(0.07)
σ^2	0.086	(0.03)
CAPEX / Assets	0.056	(0.04)
R&D / Sales	0.038	(0.04)
Leverage	0.191	(0.12)
Firm Age	47.70	(25.66)
Diverse	0.80	(0.40)
Tobin's Q	1.94	(1.22)
No. of observations	812	---

Table 4

Director committee involvement, firm value, and subsequent operating performance

This table presents estimates from the following pooled OLS regression:

$$Y_{i,t} = \alpha + \beta \times AffiliatedDirectorInvolvement_{i,t} + X_{i,t}\lambda + Industry_{i,t}\gamma + Year_{i,t}\delta + \varepsilon_{i,t}$$

$Y_{i,t}$, the dependent variable, represents either firm value (*Tobin's Q*) (Column 1), or subsequent operating performance (*ROA*) (Column 2). *Affiliated Director Involvement*$_{i,t}$ is the average committee involvement of affiliated directors on board *i* in year *t*. I measure an individual director's involvement as the fraction of board committees on which he sits, where each committee is weighted equally (Panel A), by size (Panel B.1), by annual meeting frequency (Panel B.2), or is separated by whether the committee is regulated or unregulated (Panel B.3). *Q* is calculated as the market value of assets scaled by the book value of assets, where the market value of assets is calculated as the book value of assets plus the market value of equity minus the sum of the book value of equity and balance sheet deferred taxes. Subsequent operating performance is calculated as the average operating income before depreciation scaled by total assets over the subsequent three-year period. Also included are *log(Board Meetings*$_{i,t}$*)*, *log(Board Size*$_{i,t}$*)*, *No. of Committees*$_{i,t}$, *Fraction of Affiliated Directors*$_{i,t}$, *Busy Board*$_{i,t}$, *Entrenchment Index*$_{i,t}$, *Non-Founder Family Firm*$_{i,t}$, *DE Incorporated*$_{i,t}$, *CEO Involved*$_{i,t}$, *CEO Pay Slice*$_{i,t}$, *CEO Pct Ownership*$_{i,t}$, *log(Assets*$_{i,t}$*)*, *log(Firm Age*$_{i,t}$*)*, *ROA*$_{i,t}$, $\sigma^2_{i,t}$, *Diverse*$_{i,t}$, *CAPEX/Assets*$_{i,t}$, and *R&D/Sales*$_{i,t}$, as well as year dummies and industry dummies. *T*-statistics are calculated using White-robust standard errors adjusted for firm-level clustering. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively.

Variable	Coefficient estimate (*t*-statistic)	
	Firm value ($Q_{i,t}$)	Subsequent ROA ($ROA_{i,t+1,t+3}$)
Panel A. Committees weighted equally		
Affiliated Director Involvement$_{i,t}$	-0.577**	-0.051***
	(-2.31)	(-2.70)
Other Board / Governance characteristics:		
log(Board Meetings$_{i,t}$*)*	-0.255*	-0.013*
	(-1.74)	(-1.94)
log(Board Size$_{i,t}$*)*	-0.064	0.001
	(-0.25)	(0.07)
No. of Committees$_{i,t}$	0.056	0.002
	(0.82)	(0.82)
Fraction of Affiliated Directors$_{i,t}$	0.618*	-0.003
	(1.71)	(-0.19)

Table 4 continued.

Variable	Coefficient estimate (*t*-statistic)	
	Firm value ($Q_{i,t}$)	Subsequent ROA ($ROA_{i,t+1,t+3}$)
Busy Board$_{i,t}$	-0.005	0.005
	(-0.04)	(1.30)
Entrenchment Index$_{i,t}$	-0.049	-0.002
	(-1.03)	(-1.30)
Non-Founder Family Firm$_{i,t}$	-0.045	-0.002
	(-0.24)	(-0.27)
DE Incorporated$_{i,t}$	0.054	-0.002
	(0.49)	(-0.51)
CEO characteristics:		
CEO Involved$_{i,t}$	-0.273	0.001
	(-1.75)	(0.20)
CEO Pay Slice$_{i,t}$	0.170	0.010
	(0.57)	(0.70)
CEO Pct Ownership$_{i,t}$	-0.003	-0.000
	(-0.16)	(-0.79)
Firm characteristics:		
log(Assets$_{i,t-1}$*)*	-0.013	-0.005*
	(-0.25)	(-1.78)
log(Firm Age$_{i,t}$*)*	0.042	-0.001
	(0.55)	(-0.42)
$ROA_{i,t-1}$	10.287***	0.672***
	(6.03)	(12.70)
$\sigma^2_{i,t-1}$	-2.327	-0.206*
	(-1.09)	(-1.66)
Diverse$_{i,t-1}$	-0.132	0.000
	(-0.79)	(0.06)
CAPEX / Assets$_{i,t-1}$	-2.549	0.045
	(-0.98)	(0.55)
R&D / Sales$_{i,t-1}$	7.336***	0.025
	(3.34)	(0.23)
No. of observations	812	621
Adjusted R^2	0.63	0.76

Table 4 continued.

Variable	Coefficient estimate (*t*-statistic)	
	Firm value ($Q_{i,t}$)	Subsequent ROA ($ROA_{i,t+1,t+3}$)
Panel B.1. Committees weighted by size		
Affiliated Director Involvement$_{i,t}$	-0.670***	-0.045***
	(-2.84)	(-2.82)
No. of observations	812	621
Adjusted R^2	0.59	0.76
Panel B.2. Committees weighted by annual meeting frequency		
Affiliated Director Involvement$_{i,t}$	-0.492*	-0.038**
	(-1.77)	(-2.31)
No. of observations	812	621
Adjusted R^2	0.63	0.76
Panel B.3. Committees separated by regulated vs. unregulated		
Regulated Involvement$_{i,t}$	-0.749*	-0.067***
	(-1.68)	(-2.49)
Unregulated Involvement$_{i,t}$	-0.487	-0.041*
	(-1.54)	(-1.74)
No. of observations	812	621
Adjusted R^2	0.63	0.76

Table 5
Determinants of director committee involvement

This table presents estimates from the following double-censored Tobit model:

$$AffiliatedDirectorInvolvement_{i,t} = \alpha + \beta \times CEOinvolved_{i.t} + X_{i,t}\lambda + Industry_{i,t}\gamma + Year_{i,t}\delta + \varepsilon_{i,t}$$

Affiliated Director Involvement$_{i,t}$, the dependent variable, is the average committee involvement of the affiliated directors on board *i* in year *t*. Column 1 ('*All Affiliated*') considers the average committee involvement of all affiliated directors on the board, and Column 2 ('*Non-CEO Affiliated*') considers the average committee involvement of the affiliated directors on the board except for the CEO of the firm. *CEO Involved*$_{i,t}$ equals one if the CEO is directly involved in apportioning committee assignments, and zero otherwise. $X_{i,t}$ is a vector of board and firm characteristics, *Industry*$_{i,t}$ is a vector of industry dummies, and *Year*$_{i,t}$ is a vector of year dummies. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively.

Variable	Coefficient estimate (*t*-statistic)	
	All Affiliated	*Non-CEO Affiliated*
CEO Involved$_{i,t}$	0.110***	0.103***
	(7.53)	(4.17)
Board characteristics:		
log(Board Size$_{i,t}$*)*	-0.061**	0.045
	(-2.22)	(0.93)
No. of Committees$_{i,t}$	0.039***	0.041***
	(10.33)	(6.34)
Firm characteristics:		
log(Assets$_{i,t-1}$*)*	0.013**	0.009
	(2.33)	(1.02)
log(Firm Age$_{i,t}$*)*	-0.012**	-0.020*
	(-1.97)	(-1.95)
Leverage$_{i,t-1}$	0.159***	0.198***
	(3.64)	(2.64)
ROA$_{i,t-1}$	0.024	0.031
	(1.31)	(1.01)
$\sigma^2_{i,t-1}$	-0.607**	0.220
	(-2.24)	(0.47)
Diverse$_{i,t-1}$	0.008	0.004
	(0.61)	(0.16)
CAPEX / Assets$_{i,t-1}$	-0.092	-0.048
	(-0.63)	(-0.19)
R&D / Sales$_{i,t-1}$	-0.066	-0.002
	(-1.41)	(-0.03)
No. of observations	812	812

Table 6

Committee composition when CEO is directly involved (versus when he is not)

This table compares committee compositions when the CEO is involved in apportioning committee assignments (Panel A), versus when he is not (Panel B). Panel C presents these differences, reporting the coefficient estimates from a pooled OLS regression of *Committee Composition*$_{i,t}$ on *CEO involved*$_{i,t}$. *Committee Composition*, the dependent variable, is the fraction of committee members who are affiliated directors. *CEO involved* equals one if the CEO is directly involved in apportioning committee assignments, and zero otherwise. Also included are *log(Assets*$_{i,t-1}$*)*, *log(Firm Age*$_{i,t-1}$*)*, *Leverage*$_{i,t-1}$, *ROA*$_{i,t-1}$, $\sigma^2_{i,t-1}$, *Diverse*$_{i,t-1}$, *CAPEX/Assets*$_{i,t-1}$, and *R&D/Sales*$_{i,t-1}$, as well as industry dummies. *T*-statistics are calculated using White-robust standard errors adjusted for firm-level clustering. Asterisks (*) denote committees with membership restrictions. A cross (†) denotes that no membership restrictions were in place until 2003. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively.

Director type	Audit*	Comp.*	Gov./Nom.†	Finance	Social resp.	Executive	Pension	Sci./Tech.	Remaining
Panel A. Committee composition when CEO is involved									
Affiliated	0.21	0.12	0.43	0.57	0.23	0.72	0.36	0.17	0.54
Independent	0.79	0.88	0.57	0.43	0.77	0.28	0.64	0.83	0.46
No. of observations	108	108	68	59	54	73	32	3	22
Panel B. Committee composition when CEO is not involved									
Affiliated	0.08	0.05	0.09	0.19	0.19	0.39	0.13	0.16	0.23
Independent	0.92	0.95	0.91	0.81	0.81	0.61	0.87	0.84	0.77
No. of observations	704	704	704	373	341	451	251	53	142
Panel C. Committee composition regression estimates									
CEO involved	0.123***	0.062**	0.328***	0.363***	0.026	0.323***	0.239***	0.096***	0.286***
	(3.40)	(2.22)	(6.96)	(4.17)	(0.58)	(3.96)	(2.61)	(3.71)	(3.11)
No. of observations	812	812	772	432	395	524	283	56	164
Adjusted R^2	0.18	0.11	0.33	0.30	0.18	0.19	0.31	0.32	0.25

Table 7

Changes in compositions of unregulated committees surrounding shock to CEO involvement

This table presents estimates from the following difference-in-difference regression specification:

$$CommitteeComposition_{i,t} = \alpha + \beta_1 \times PriorInvolvement_{i,t} \times Postreg_{i,t} + \beta_2 \times PriorInvolvement_{i,t} + \beta_3 \times Postreg_{i,t} + X_{i,t}\lambda + Industry_{i,t}\gamma + \varepsilon_{i,t}$$

Committee Composition$_{i,t}$, the dependent variable, is the fraction of committee members who are affiliated directors. *PriorInvolvement*$_{i,t}$ equals one if (prior to regulatory changes in 2003) the CEO of firm *i* was directly involved in committee assignments, and zero otherwise. *PostReg* equals one in years greater than or equal to 2003, and zero otherwise. Also included are *log(Assets*$_{i,t-1}$*)*, *log(Firm Age*$_{i,t-1}$*)*, *Leverage*$_{i,t-1}$, *ROA*$_{i,t-1}$, $\sigma^2_{i,t-1}$, *Diverse*$_{i,t-1}$, *CAPEX/Assets*$_{i,t-1}$, and *R&D/Sales*$_{i,t-1}$, as well as industry dummies. *T*-statistics are calculated using White-robust standard errors adjusted for firm-level clustering. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively.

Variable	Coefficient estimate (*t*-statistic)					
	Finance	Social resp.	Executive	Pension	Sci./Tech.	Remaining
Panel B. Difference-in-difference regression specification (entire sample)						
*PriorInvolvement * PostReg*	-0.236***	-0.111**	-0.145**	-0.051	0.063	-0.211**
	(-2.75)	(-1.99)	(-2.00)	(-0.92)	(0.46)	(-2.22)
PriorInvolvement	0.256***	0.037	0.216**	0.212***	-0.104	0.143*
	(3.03)	(0.78)	(2.25)	(2.51)	(-0.87)	(1.70)
PostReg	-0.017	0.046	-0.027	-0.043	-0.105	-0.085
	(-0.41)	(1.01)	(-0.60)	(-1.29)	(-1.36)	(-1.37)
No. of observations	432	395	524	283	56	164
Adjusted R^2	0.24	0.19	0.19	0.45	0.48	0.38

Table 8
Changes in firm value surrounding shock to CEO involvement

Using the regression specification from Table 4 (equation 1), I regress 2000/2001 to 2003/2004 changes in firm value against the corresponding change in the extent of affiliated directors' involvement. Statistical significance at the 10%, 5%, and 1% levels are denoted by *, **, and ***, respectively.

Variable	Coefficient estimate (*t*-statistic)
Δ *Affiliated Director Involvement*$_{i,t}$	-1.958*
	(-1.92)
Change in other board / governance characteristics:	
log(Board Meetings$_{i,t}$*)*	0.442
	(1.31)
log(Board Size$_{i,t}$*)*	-0.676
	(-1.08)
No. of Committees$_{i,t}$	-0.087
	(-0.94)
Fraction of Affiliated Directors$_{i,t}$	-2.240*
	(-1.80)
Busy Board$_{i,t}$	-0.035
	(-0.20)
Entrenchment Index$_{i,t}$	0.037
	(0.20)
Non-Founder Family Firm$_{i,t}$	-0.111
	(-0.33)
DE Incorporated$_{i,t}$	0.482
	(1.16)
Change in CEO characteristics:	
CEO Involved$_{i,t}$	-0.240
	(-0.95)
CEO Pay Slice$_{i,t}$	-0.346
	(-0.49)
CEO Pct Ownership$_{i,t}$	0.215
	(1.34)

Table 8 continued.

Variable	Coefficient estimate (*t*-statistic)
Change in firm characteristics:	
$log(Assets_{i,t-1})$	-0.454*** (-2.57)
$log(Firm\ Age_{i,t})$	-0.184 (-1.20)
$ROA_{i,t-1}$	8.262*** (2.56)
$\sigma^2_{i,t-1}$	7.828* (1.66)
$Diverse_{i,t-1}$	-0.283 (-1.07)
$CAPEX\ /\ Assets_{i,t-1}$	7.150*** (2.52)
$R\&D\ /\ Sales_{i,t-1}$	-4.347 (-0.39)
No. of observations	74
Adjusted R^2	0.51