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Board Seat Accumulation by Executives: A Shareholder's Perspective

TOD PERRY and URS PEYER*

ABSTRACT

While reformers have argued that multiple directorships for executives can destroy value, we investigate firms with executives that accept an outside directorship and find negative announcement returns only when the executive's firm has greater agency problems. When fewer agency concerns exist, additional directorships relate to increased firm value. Announcement returns are also higher when executives accept an outside directorship in a financial, high-growth, or related-industry firm. Our results suggest that outside directorships for executives can enhance firm value, which has important implications for firms employing executives nominated for outside boards and for policy recommendations restricting the number of directorships.

CORPORATE GOVERNANCE FAILURES have been blamed for the recent losses of shareholder value in a number of companies including Enron, Global Crossing, and MCI-Worldcom. One common criticism of the existing system is that corporate boards have too few independent outside directors. In a recent response to this criticism, the New York Stock Exchange has adopted listing requirements that require firms to have a majority of independent directors. According to a survey by Spencer Stuart, active CEOs and other executives of publicly traded firms remain the most desired candidates for firms seeking new outside directors (see Spencer Stuart Board Index (2003)). To the extent that an executive's primary employer implicitly or explicitly permits the executive to accept the outside board seat, an understanding of the conditions that may be beneficial or harmful to the executive's employing firm, which we call the "sender firm", is important.

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In addition, shareholder groups are aware that an executive's time and effort are finite and realize that directors who are overcommitted or "too busy" will not monitor management effectively in the outside firm. Reformers have even proposed that board monitoring could be improved by restricting the number of directorships individuals may hold. For example, the National Association of Corporate Directors guidelines relating to director professionalism and conduct (NACD (1996)) include a recommendation that senior corporate executives and CEOs should hold not more than three outside directorships. The corporate governance policies of the Council of Institutional Investors (CII (2003)) suggest that individuals with full-time jobs should not serve on more than two other boards and that a CEO should only serve as a director of one other company and should do so only if the CEO's own company is in the top half of its peer group. Outside directorships require significant time commitments by executives. The NACD recommends that one "budget at least four full 40-hour weeks of service for every board on which [the directors] serve,"¹ and Lipton and Lorsch (1992) suggest that an individual needs to devote at least 100 hours a year to fulfill duties as a director. Managerial ability is a scarce resource, and the time and effort expected of managers to monitor outside firms will generally reduce the time committed to the executive's own firm. Executives that overextend themselves by accepting too many outside directorships will not only be ineffective monitors in the outside firm, but will also be less productive for the primary employer.

On the other hand, the decision by an executive to accept a directorship can enhance shareholder value of the primary employer if the executive sitting on an outside board learns about different management styles or strategies used in other firms (Bacon and Brown (1974), Booth and Deli (1996), and Carpenter and Westphal (2001)). In addition, the sender firm could also benefit from its executive using the directorship to establish a network or to monitor business relationships (e.g., Mace (1986), Rosenstein and Wyatt (1994), and Loderer and Peyer (2002)). Furthermore, Fama and Jensen (1983) suggest that the demand for the executive to serve as an outside director can be an independent certification or signal of the executive's ability. Kaplan and Reishus (1990), Gilson (1990), Shivdasani (1993), Brickley, Coles, and Linck (1999), and Ferris, Jagannathan, and Pritchard (2003) all report evidence consistent with a positive relation between the number of directorships held by an executive and director quality.

Although limiting the number of outside directorships held by individual directors appears to be widely supported, the empirical evidence relating to the impact of "busy" directors is mixed. Core, Holthausen, and Larcker (1999) find that CEO pay is excessive in firms in which board members are busy (i.e., hold three or more outside directorships), suggesting that these boards might not monitor management effectively. Ferris et al. (2003), however, investigate the

¹ As cited in Byrne, J. and R. Melcher, "The best & worst boards", *Business Week*, November 25, 1996, p. 102. *Business Week* also assigned lower corporate governance rankings to firms for which outside employed directors hold more than three board seats.

frequency of subsequent securities fraud lawsuits and firm performance and find no evidence that firms with busy directors fare worse. They conclude that the empirical evidence does not support imposing a limitation on the number of directorships held by individuals. Loderer and Peyer (2002) even find a positive association between firm values, measured as Tobin's Q , and the number of directorships a chairman holds for a sample of Swiss firms. These papers generally focus on the relation between a firm's board characteristics, such as the average number of board seats held by each director, and different proxies for board effectiveness and firm performance. Given that firms looking for new directors frequently seek out executive officers of other firms, regulation of the number of directorships would affect the firms nominating as well as the firms supplying the directors. One of the main contributions of this paper is to extend the investigation of busy directors to the impact on sender firms supplying their executives as outside directors.² We think this is important for at least two reasons. First, our analysis can offer guidelines to sender firms and their boards as to conditions under which the nomination of an executive to an outside board is likely to enhance or destroy shareholder value. Second, we believe that any discussion regarding the demand for executives as outside directors and proposed limitations on the number of directorships an individual can hold should consider potential benefits and costs to the firms supplying the executives.

We collect 349 announcements of new director appointments in the years 1994 through 1996, where both the sending firm, that is, the firm at which the executive is employed, and the receiving firm, that is, the firm that the individual is nominated to join, are publicly traded.³ Notice that by using this sample of actual director appointments, we observe only events in which the executive accepts the nomination. Underlying an executive's decision to accept the nomination is the decision of the board or the CEO of the sender firm to explicitly or implicitly allow the executive to serve on the outside board.⁴ In this sample, approximately 20% of the events involve individuals who already hold two or more outside directorships in publicly traded firms. We find that the average cumulative abnormal announcement return for the 3-day period around the earlier of the press release or proxy filing date for the sender firms is -0.20% , which is not statistically significant. We also do not find a significant negative sender-firm announcement return if the executive already holds two or more outside directorships.

² Booth and Deli (1996) also focus on the supply of outside directors by studying individual and sender-firm characteristics that affect the number of outside directorships held by the CEO.

³ Rosenstein and Wyatt (1994) also examine the announcement returns for both sender and receiver firms for 124 events in 1981 to 1985 but do not relate them to the number of directorships the nominee holds. In addition, our study differs from the prior work of Rosenstein and Wyatt (1990, 1994) in that we use the earlier of the proxy filing and news announcement date and we do not exclude events with contaminating information related to the receiver firm, given our focus on the sender firm.

⁴ For expositional purposes we refer to the acceptance choice as being the executive's although it is a common practice for an executive to seek approval from the board (for CEOs) or from the CEO (for other executives) of the employing firm before accepting such nominations.

Booth and Deli (1996) contend that a firm will only want an executive to accept additional outside directorships up to the point at which the marginal benefits of doing so are equal to the marginal costs for the firm. The executive, however, will want to continue accepting outside directorships as long as the personal marginal benefits from the additional directorship outweigh his or her personal marginal costs. Serving on outside boards can enhance the reputation and prestige of an executive, who also may receive a generous director compensation package. While the executive and the firm's shareholders share many benefits, any enhanced prestige and reputation predominantly accrue to the individual. On the other hand, the personal costs of the directorship to an active executive are increasing in the required effort and potential liability from serving as a director, as well as potential losses from neglecting his or her responsibilities at the sender firm. These losses can take the form of forgone increases in compensation, losses associated with ownership in the sender firm, or dismissal.⁵ Following traditional agency theory arguments, we expect that executives will be more likely to accept outside directorships that reduce sender-firm value when the executive is subject to greater potential agency problems, that is, when the discrepancy in costs and benefits between the shareholders and the individual is larger.

By separating events into two subgroups based on potential agency problems, we find evidence consistent with outside directorships both enhancing and destroying value in the sender firms. Using executive ownership and board independence as proxies for agency problems within the firm, we find additional outside directorships for executives holding two or more directorships to be negatively related to sender-firm value for firms with lower relative executive stock ownership and for firms without a majority of independent outside directors. This evidence is consistent with executives consuming perquisites in the form of outside directorships and overextending themselves to the detriment of sender-firm shareholders. On the other hand, we find that announcement returns on average are positive for events in which executives with multiple directorships accept an additional outside directorship and the sender-firm board has a majority of independent directors or the executive has above-sample median ownership in the sender firm. These findings suggest that holding multiple directorships per se is not evidence of selfish executive behavior by executives. In a multivariate setting, we find that sender firms benefit from having one of their executives join an outside board when the receiver firm is a financial firm, is a company that is in a similar industry, and/or is a firm that has greater relative growth opportunities. On the other hand, sender-firm announcement returns are lower when the CEO, as opposed to another executive, joins the outside board, and when the sender firm has outperformed the median firm in its industry.

⁵ For example, Lukas Mühlemann of Credit Suisse was ousted from his job as Chairman and CEO in part because he was a board member of the now bankrupt Swissair. "Mühlemann had been criticized for not having taken his position as director of the failed Swissair Group seriously enough and for his role as director of the Argentine bank Banco General de Negocios, accused by the country's justice authorities of having organized the flight of capital." ("Mühlemann bows to pressure", www.swissinfo.ch, July 3, 2002).

When examining the announcement returns for receiver firms, we find higher returns when a receiver firm adds an outside executive to the board and its own board lacks a majority of independent directors or the firm has poor prior performance. Consistent with results documented by Baysinger and Butler (1985), Weisbach (1988), Rosenstein and Wyatt (1990), Byrd and Hickman (1992), Brickley, Coles, and Terry (1994), and Cotter, Shivdasani, and Zenner (1997), this finding raises the question of whether a fully diversified shareholder would care that an executive joins the board of another firm given the potential that shareholder losses in the sender firm may be offset by gains or benefits in the receiver firm. We find no evidence of benefit to the receiver firm when the nominated executives are classified as having agency problems in their primary employer. The data suggest negative overall announcement returns when the nominee is from a sender firm without a majority of independent directors or the nominee has lower relative ownership in his or her own firm.

Our investigation contributes to the literature in three important ways. First, we extend prior analyses to examine the impact multiple directorships or busy directors have on shareholders of the sender firm. Second, we provide insights for boards of firms that have executives who are asked to serve on an outside board as to individual and firm characteristics that are likely to add or destroy shareholder value in the sender firm. Third, we explicitly recognize the influence of agency problems that can affect an executive's decision to accept an additional outside directorship by conditioning the event study on proxies for agency problems at the executive and board level. We find that measures related to the ex ante degree of agency problems in the sender firm are a major determinant of whether outside directorships negatively or positively affect shareholder value. Consistent with Ferris et al. (2003), our findings cast further doubt on the value of limitations on the number of directorships that an individual can hold.

We begin with a description of the sample and data in Section I. The empirical tests and results are presented in Section II, and we conclude in Section III.

I. Sample Selection and Data Description

A. Sample Selection

We select a sample of new director appointments in the following manner. First, we identify a subset of publicly traded firms listed on Compact Disclosure in 1994, 1995, and 1996 with available data from both Execucomp and a database provided by the Investor Responsibility Research Center (approximately 1,000 firms). Next, we identify individuals who were listed as directors in 1995 and 1996 but were not listed in the prior year. Using the proxy statements from Lexis-Nexis, we search each prospective director appointment to determine if the individual was actually added to the board of directors of the receiver firm during the prior year. For each observation, we collect both the proxy filing date and the date of the earliest announcement of the nomination or election of the new board member and additional information relating to the receiver firm and the individual director. We eliminate events for which the

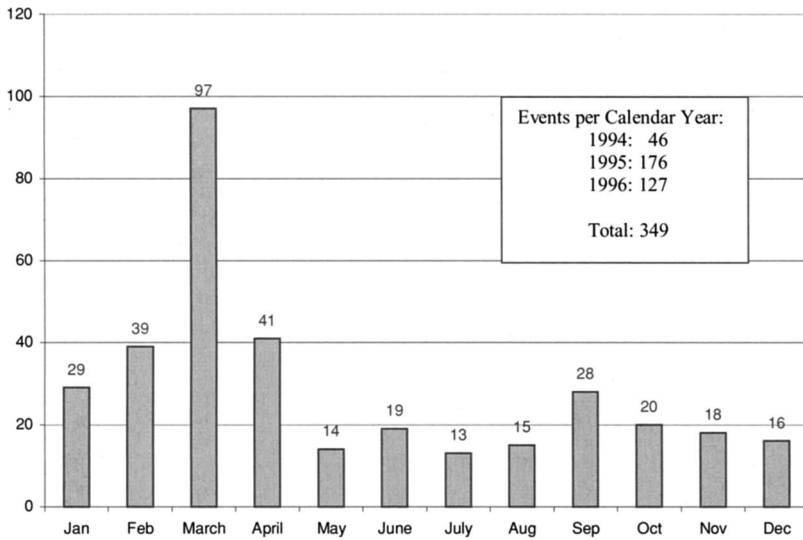


Figure 1. Distribution of events. The figure shows the distribution of the events in calendar time. The event-day is the earlier of the announcement date or the proxy filing date for a sample of 349 board nominations in 1994 to 1996.

new appointment is an employee of the receiver firm and events for which the director represents a large ownership position or blockholder, as indicated in the news announcement or proxy statement. We also exclude announcements of new appointments that are related to an announced takeover, merger, or major restructuring. The selection process results in a sample of 349 events that involve individuals employed by other publicly traded firms with data available on CRSP and Compustat. Because the main focus of this paper relates to the impact of the appointment announcement on the sender firm, we do not exclude announcements for which more than one director appointment is announced on the same day. Our final sample contains 30 events where two or more individuals join the same receiver firm and the announcements were made on the same day. Excluding these events does not change the findings reported below.

B. Data Description

The distribution of the events by month of the year is shown in Figure 1, with event dates reflecting the earlier of either the proxy filing date or the announcement date. In our sample, 57% of the events have a distinct announcement date prior to the proxy filing date.⁶ We observe the highest concentration of events in March (97 observations), which corresponds to the typical proxy season for

⁶ Shivdasani and Yermack (1999) report that 76% of their director appointment events have distinct announcement dates before the filing date. If we restrict our sample to those events for which we have both dates available, we find that 73% of our events have an announcement date before the proxy filing date.

firms with a December fiscal year-end. In Panel A of Table I, we report the individual's position in the sender firm: 55% of the new directors in our sample are CEOs, and 45% hold other positions at the sender firm, such as president, CFO, or COO. In 39% of the sender firms, the individual being appointed to the additional board is chairman in the sender firm. The average age of a nominated director in our sample is 54, and 11% of the new directors are between the ages of 62 and 66 (not shown), which corresponds to the typical retirement age for many CEOs and other executives.

Table I
Characteristics of Firms and Board Appointees

We report summary statistics for a sample of 349 events from 1994 to 1996 in which an executive from a publicly traded sender firm joins the board of a publicly traded receiver firm. In Panel A, *CEO* and *Otherexec* are exclusive dummy variables equal to 1 if the individual holds this particular title in the sender firm; *Chairman* is a dummy variable equal to 1 if the person also holds the title chairman; *Age* is the age of the person as of the announcement date. In Panel B, *Mktval* is the market value of equity measured at the fiscal year-end; *Sales* is net sales of the firm; *Capex* is the ratio of capital expenditures to assets; *Market-to-book (MB)* is computed as the market value of equity plus the book value of assets minus the book value of equity, all divided by the book value of assets; *Financial dummy* is a dummy variable equal to 1 if the sender (receiver) firm's one-digit SIC is 6; *Prior industry-adjusted return* is the sender's (receiver's) stock return minus the median stock return of the same two-digit SIC industry, over the days $[-250, -20]$ where 0 is the announcement day; *Non-majority independent* is a dummy variable equal to 1 if the sender (receiver) firm's board does not consist of a majority of independent outside directors; *Board meetings* is the number of board meetings in the receiver firm in the fiscal year prior to the announcement date; *CEO is nominating in receiver* is a dummy variable equal to 1 if the receiver firm does not have a nominating committee or if the CEO is on the committee; *Interlock dummy* is equal to 1 if prior to the nomination the receiver firm has an executive on the board of the sender firm; *Same two-digit SIC dummy* is equal to 1 if both sender and receiver firms operate in the same two-digit SIC industry in the year prior to the nomination; *Relative size dummy* is a dummy variable equal to 1 if the receiver firm's market value is higher than the sender firm's market value; *Replacement dummy* is a dummy variable equal to 1 if the nominee is replacing a director in the receiver firm and 0 if the nominee is a new addition. We consider events new additions if the board size increases from the fiscal year-end prior to the nomination. The variable *Nominee ownership* includes stock as well as options outstanding expressed as a fraction of outstanding shares, and is collected from the proxy statement at the fiscal year-end prior to the nomination for sender firms and at the time when the nominee was mentioned for the first time in the receiver firm. Accounting variables in Panel B are measured at the fiscal year-end prior to the announcement or proxy filing date, and industry adjustments are made using all Compustat firms in the same two-digit SIC/year. Panel B also shows sample means for S&P500 and Compustat firms for 1995. The Compustat sample is censored at the 1st and 99th percentiles. The reported *p*-values reflect the significance of mean comparison tests between sender and receiver firms.

Panel A: Characteristics of Individuals

Variable	Mean
<i>CEO</i>	55%
<i>Otherexec</i>	45%
<i>Chairman</i>	39%
<i>Age</i>	54

(continued)

Table I—*Continued*

Panel B: Characteristics of Sender and Receiver Firms					
Variable	Mean Sender	Mean Receiver	<i>p</i> -Value Difference	S&P500 (1995)	Compustat (1995)
<i>Mktval</i>	8,328	5,333	0.00	20,688	3,015
<i>Sales</i>	8,397	6,463	0.09	7,122	1,054
<i>Capex</i>	0.069	0.067	0.60	0.068	0.088
<i>Industry-adjusted Capex</i>	0.009	0.007	0.42	—	—
<i>Market-to-book (MB)</i>	1.737	1.611	0.06	2.1009	2.1050
<i>Industry adjusted MB</i>	0.146	0.122	0.56	—	—
<i>Financial dummy</i>	11.5%	16.4%	0.06	16.9%	20.4%
<i>Prior industry-adjusted stock return</i>	0.052	0.004	0.05	—	—
<i>Non-majority independent</i>	37.2%	35.6%	—	—	—
<i>Board meetings</i>	—	7.90	—	—	—
<i>CEO is nominating in receiver</i>	—	52.7%	—	—	—
<i>Interlock dummy</i>	4.3%	—	—	—	—
<i>Same two-digit SIC dummy</i>	6.9%	—	—	—	—
<i>Relative size dummy</i>	39.5%	—	—	—	—
<i>Replacement dummy</i>	75.9%	—	—	—	—
<i>Nominee ownership</i>	1.3%	0.01%	—	—	—

The characteristics of the sender and receiver firms in our sample are summarized in Panel B of Table I. We find that the average sender firm is significantly larger in terms of market capitalization, but 40% of the events involve an individual from a smaller firm joining the board of a larger firm. Compared to the S&P500 firms, both sender and receiver firms display lower average market values but about the same level of average sales. Sender firms have significantly higher stock returns than receiver firms prior to the event, as measured by the stock return over the days $[-250, -20]$ adjusted by the industry median return (measured at the two-digit SIC level). Rosenstein and Wyatt (1994) find similar performance results for a sample of sender and receiver firms from 1981 to 1985. Our results are also consistent with the findings of Kaplan and Reishus (1990), Brickley et al. (1999), and Ferris et al. (2003), who report a positive relation between firm performance and subsequent outside directorships. Finally, sender firms have higher unadjusted market-to-book ratios than receiver firms; however, the industry-adjusted market-to-book ratios are not statistically different across the two groups.

C. Number of Directorships

Because the number of outside directorships held by an executive officer will be related to the busyness of that individual, an important variable for our tests is the number of directorships an individual holds prior to the appointment under consideration. We collect this information from the proxy statements of the receiver firm and the news announcements. While the SEC only requires firms to reveal directorships in publicly traded companies, many proxy statements include additional biographical information about director nominees including

other non-public directorships.⁷ Our main focus, however, is on directorships held in publicly traded firms outside the sender firm.⁸ We use the variable *directorships* to refer to the total number of outside board seats in publicly traded firms held by the executive prior to the current nomination. We report descriptive statistics in Panel A of Table II and find that the mean (median) number of outside directorships held by executives prior to the nomination is 0.85 (1). Approximately 20% (7%) of the events involve individuals with two (three) or more outside directorships, proportions that are generally consistent with the distribution of directorships reported by Ferris et al. (2003) for the year 1995.

We also collect a second measure of outside board commitments that includes all directorships in public and non-public companies listed in the proxy statement, excluding directorships in charitable foundations and non-profit organizations. We label this variable *forprofit*, which differs from *directorships* in that it includes board commitments to firms not listed on CRSP and typically includes an executive's directorship in his or her own firm (the sender firm). In Panel A of Table II, we report that on average the new appointee already holds 1.93 *forprofit* board seats, and 52% of the individuals hold two or more *forprofit* board seats.

Because individual firms will differ substantially in the amount of provided disclosure relating to biographical information for director nominees, the measure of reported *forprofit* board seats may not be consistent across events. Our measure of publicly traded outside *directorships*, however, should be cleaner and more consistent because it is based upon information that receiving firms are required to disclose. For the remainder of this paper, we focus on *directorships* as our measure of outside directorships held by the individual director; however, similar results obtain throughout if we use the variable *forprofit* in our analysis.

II. Shareholders' Reaction to Appointments

A. Univariate Results

To examine the impact of an appointment on the value of sender and receiver firms, we perform an event study using the earlier of the news announcement date or the proxy filing date. We compute cumulative abnormal returns (CARs) over the 3-day window $[-1, 1]$, following the standard event-study methodology of Dodd and Warner (1983) and Brown and Warner (1985). The market model parameters is estimated using the days $[-250, -20]$ before the event date. We exclude two receiver firms from the event study due to either missing returns

⁷ Pursuant to Item 401(e)(2) of Regulation S-K, firms are required to "indicate any other directorships held by each director or person nominated or chosen to be a director in any company with a class of securities registered pursuant to Section 12 of the Exchange Act". However, many firms will list directorships in private firms, non-profits, and foundations in the biographical information for each director in the proxy statement.

⁸ We consider a firm publicly traded if it has information listed on CRSP. The match is based on the name of the company listed in the proxy statement or news announcement. We exclude the sender firm directorship from *directorships* because of our focus on directorships outside the sender firm.

Table II
Summary Statistics of Number of Directorships and Cumulative
Abnormal Returns

We report summary statistics for a sample of 349 events from 1994 to 1996 in which an executive from a publicly traded sender firm joins the board of a publicly traded receiver firm. Panel A shows the number of directorships held by the 349 individuals prior to their nomination to another board. The variable *Directorships* is the number of directorships the person holds in publicly traded firms as disclosed by the receiving firms. This number excludes the directorship at the sending firm as well as the new appointment. The variable *Forprofit* is the number of directorships the person holds in companies (public and private) listed in the proxy statement or the news announcement and typically includes a directorship in the sender firm, but excludes directorships in charitable organizations, foundations, and other clearly non-profit firms. Panel B reports average and median cumulative abnormal announcement returns (CAR) for the event window $[-1, 1]$. Day 0 is the earlier date of either the announcement (newspapers, wires) or the proxy filing date. There are 349 (347) events with available data for the sender (receiver) firms. Two events for receivers are excluded due to missing return data in the event or parameter estimation window. Significance levels (mean and median) are determined using the cross-sectional variation of the abnormal returns and *, ** refer to significance levels of 10% and 5%, respectively. The last two columns are tests of the hypothesis that the fraction of positive CARs is 50% using a binomial test. Panel C displays two-by-two contingency tables where the sample of 349 announcements is stratified into events where the individual holds less than two versus two or more directorships prior to the nomination and events with high versus low potential agency problems. We use two proxies for agency problems including: (1) a dummy variable equal to 1 if the nominee's ownership in the sender firm is less than or equal to the median ownership in the sample; (2) a dummy variable equal to 1 if the sender firm's board does not have a majority of independent outside directors. Ownership includes directly owned shares and options as reported in the proxy statement in the fiscal year prior to the event. Panel C of the table shows the mean sender CAR in the first row and the percentage of positive CARs underneath in italics. We report *p*-values of tests of mean differences across rows and columns, and we report *p*-values of binomial tests in parentheses on the same line as the percentage of positive CARs.

Panel A: Distribution of the Number of Directorships						
#	<i>Directorships</i> Observations	%	Other Directorships = (1) × (2)	<i>Forprofit</i> Observations	%	Other Forprofit = (1) × (5)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0	162	46.42	0	69	19.77	0
1	119	34.10	119	99	28.37	99
2	45	12.89	90	70	20.06	140
3	10	2.87	30	57	16.33	171
4	8	2.29	32	25	7.16	100
5	3	0.86	15	20	5.73	100
6	2	0.57	12	3	0.86	18
7				2	0.57	14
8				3	0.86	24
9				1	0.29	9
Total	349	100	298	349	100	675
Average			0.85			1.93

(continued)

Table II—Continued

Panel B: Cumulative Abnormal Returns for Sender and Receiver Firms						
	Variable	Mean	Standard Error	Median	% > 0	p-Value
SENDER FIRMS $N = 349$	CAR $[-1, 1]$	-0.0020	0.0016	-0.0026*	45.6	0.11
RECEIVER FIRMS $N = 347$	CAR $[-1, 1]$	-0.0022	0.0017	-0.0046*	43.0	0.01

Panel C: Cumulative Abnormal Returns for Sender Firms Stratified by Directorships and Agency Proxies				
Sender CAR $[-1, 1]$ {Observations}	Less Than Two Outside Directorships	Two or More Outside Directorships	Average per Row	p-Value of Mean Difference per Row
Nominee ownership in sender $\leq$ sample median	-0.0023 {129} 47% > 0 ($p = 0.48$)	-0.0104*** {46} ^b 35% > 0 ($p = 0.05$)	-0.0044* {175}	0.06
Nominee ownership in sender > sample median	-0.0011 {152} ^b 45% > 0 ($p = 0.22$)	0.0117** {22} 73% > 0 ($p = 0.05$)	0.0006 {174}	0.05
Average per column	-0.0016 {281}	-0.0033 {68}		0.68
p-value of mean difference per column	0.74	0.00	0.10	
Independent outside directors $\leq 50\%$ of sender board	-0.004 {102} 42% > 0 ($p = 0.14$)	-0.0165*** {28} ^a 25% > 0 ($p = 0.01$)	-0.0066** {130}	0.06

Sender CAR $[-1, 1]$ {Observations}	Less Than Two Outside Directorships	Two or More Outside Directorships	Average per Row	p-Value of Mean Difference per Row
Independent outside directors > 50% of sender board	-0.0003 {179} ^a 47% > 0 ($p = 0.45$)	0.0059 {40} 63% > 0 ($p = 0.15$)	0.0001 {219}	0.22
Average per column	-0.0016 {281}	-0.0033 {68}		0.68
p-value of mean difference per column	0.35	0.00	0.03	

^{a,b}Indicate significance levels of mean comparison tests between the respective means at the 1% and 5% levels, respectively.

Significance of mean tests are indicated by ***, **, and * and refer to significance levels of 1%, 5%, and 10% respectively.

data in the window $[-1, 1]$ or less than 100 observations in the parameter estimation window. We use the returns on the equally weighted CRSP-index as our benchmark.⁹ The significance levels are computed using the cross-sectional

⁹ Qualitatively similar results obtain for the value-weighted benchmark return and using the Fama and French (1993) combined with Ibbotson (1975) returns across time and securities (RATS) approach (not reported).

standard deviation of the CARs. Significance levels based on the standardized prediction error, using the time series of abnormal returns prior to the event, lead to qualitatively similar results and are omitted for brevity. Medians are tested using the Wilcoxon rank-sum test, and proportions are tested using a binomial test.

The mean CARs over the announcement window of $[-1, 1]$ are negative and insignificant for both sender and receiver firms as shown in Panel B of Table II. The average (median) announcement CAR for the sender firm is -0.20% (-0.26%), which is not significantly different from 0 (significant at the 10% level).¹⁰ Rosenstein and Wyatt (1994) also examine announcement returns for sender firms and find a negative but insignificant reaction for the 2-day period around the announcement and a negative and significant reaction for the week leading up to and including the announcement. For the receiver firm, we find an average (median) drop in shareholder value of 0.22% (0.46%) with only the median statistically significant at the 10% level. Our event study results for the receiver firms are consistent with the insignificant announcement returns for new independent directors reported in Shivdasani and Yermack (1999), who find an average 3-day CAR of -0.11% , and the results reported in Rosenstein and Wyatt (1990) and Ferris et al. (2003). On average, shareholders of sender firms are unaffected by an announcement that an executive officer has been nominated for an outside directorship.

In Panel C of Table II, we condition on the number of directorships by separating our sample into groups based on whether the executive already has two or more outside directorships. In addition to capturing the spirit of the reform proposals that would limit the number of outside directorships, this is also consistent with the definition of busy directors used by Core et al. (1999) and Ferris et al. (2003). For this subgroup of busy directors, we find an insignificant average drop in sender-firm shareholder value of 0.33% . Similarly, events with less than two directorships are associated with an average announcement return of -0.16% (insignificant). Furthermore, when we regress the CAR on a dummy variable equal to 1 if the executive already holds two or more outside directorships and 0 otherwise, we do not find a statistically significant coefficient estimate (column 1 of Table III). One potential explanation for this non-result is that the sender-firm shareholders do not view it as a cost when their executives take on additional outside board seats. However, it is also possible that the number of directorships picks up a positive impact from signaling managerial quality or gains from learning and networking, and a negative cost associated with a busier executive. In this case, the insignificant coefficient could be the result of offsetting positive and negative effects. To distinguish between the two interpretations and investigate further, we use insights from Jensen and Meckling (1976), Fama (1980), and Fama and Jensen (1983) in the next section.

¹⁰ Sender firm CARs for other windows are the following (not tabulated): for $[-2, 2]$, 0.10% ; for $[-5, 5]$, -0.35% ; for $[-1, 0]$, -0.11% . None are significantly different from 0. Subsequent results are robust to the different windows.

B. Multivariate Analysis: Outside Directorships and Agency Costs

When active executives are solicited to serve on outside boards, economic theory suggests that an executive officer will choose to accept directorships in only those cases in which he or she finds that the marginal personal benefit of an additional board seat outweighs the marginal personal cost. Many benefits accrue predominantly to the executive, including enhanced prestige and reputation and the compensation package for outside directors from the receiving firm (e.g., Mace (1986)). On the other hand, the executive officer must exert costly effort for the benefit of the receiver firm and can suffer personal losses from neglecting his or her responsibilities at the sender firm in the form of forgone increases in compensation, losses associated with ownership in the sender firm, loss of reputation capital, or even dismissal.¹¹ In cases in which the perceived individual costs outweigh the benefits, it is unlikely that the executive would accept the directorship.

A shareholder in the executive's firm, however, will only want the executive to accept the outside directorship when the benefits to the firm are greater than the costs to the firm. Shareholders of the sender firm can benefit if outside directorships serve as credible signals and certifications of managerial quality (Fama (1980) and Fama and Jensen (1983)), or if the executive uses the outside directorship to enhance value in his or her own firm through relationships or increased knowledge (Bacon and Brown (1974), Booth and Deli (1996), and Carpenter and Westphal (2001)). On the other hand, the effort and time committed by the executive to the outside firm can be harmful to the sender firm if the executive disregards his or her responsibilities to the primary employer. Because the average executive in our sample owns less than 1% of the sender firm, potential losses to sender-firm shareholders from an executive shirking responsibilities can far outweigh the losses to the individual executive. Since the benefits and costs for the individual are different from the benefits and costs accruing to the sender firm, the decisions by the executive to accept and the board and/or CEO to allow an outside directorship are poised by a classical agency problem (Jensen and Meckling (1976) and Booth and Deli (1996)). More specifically, since shareholders have no direct input into an executive's decision regarding whether to accept a particular outside board seat, agency problems at both the executive and board level can potentially affect the cost/benefit analyses and the decisions to accept or decline invitations to serve on outside boards.

These arguments imply that executives without effective monitoring or with incentives misaligned with shareholders will be more likely to accept outside board seats such that individuals benefit at the expense of sender-firm shareholders. To the extent that executives are explicitly or implicitly required to seek permission of the board or senior executives before

¹¹ A recent example of costs associated with directorships: "Webster announced his resignation in a letter to Pitt, who quit earlier following a flap over his apparent failure to inform fellow SEC commissioners that Webster headed the [board's] audit committee of a company under investigation for fraud." (CBSNEWS.com, 11/12/2002; "Webster Quits SEC Accounting Board").

accepting an outside directorship, we expect to observe events with negative shareholder consequences to be more common in those firms with weaker monitoring and/or managerial incentives.¹² To examine this possibility, we divide our sample using measures of potential agency problems within the sender firm.

Our first measure of potential agency problems is the executive's ownership (including options) in the sender firm, collected from the last proxy statement prior to the nomination. Ownership in the firm through common stock or stock-based compensation can be used to align financial incentives between the officer and the shareholders (e.g., Jensen and Meckling (1976)). Director nominees with higher levels of ownership in the sender firm will personally absorb greater relative costs associated with value-reducing behavior and therefore should be less likely to accept additional outside directorships that negatively affect the sender firms. We split our sample into two groups based on the median ownership percentage in the sample. For the events with above median ownership, we report an insignificant average return of 0.06% in Panel C of Table II. For the events with low ownership (less incentive alignment), however, we find an average drop in shareholder value of 0.44%, which is significantly different from 0 at the 10% level. The difference between high and low ownership events is also significant at the 10% level.

We also use a second measure of potential agency problems in the sender firm relating to the potential monitoring efforts by the sender firm's board. We use a binary variable equal to 1 if the sender firm does not have a majority (more than 50%) of independent outside directors. Hermalin and Weisbach (1998) present a model with a bargaining process that determines composition of the board. One implication of their model is that the proportion of independent directors is negatively related to the power held by the CEO. Given the board's important role in monitoring management, we expect that CEOs can more easily consume perquisites in the form of outside directorships in firms without a majority of independent directors (Weisbach (1988), Brickley et al. (1994), Cotter et al. (1997)). Although other executives not subject to adequate board monitoring may also accept outside board nominations, it is not as clear, however, that non-CEOs will be able to accept outside board seats for personal benefit because it is likely that their actions will be subject to scrutiny from the CEO. We investigate differences between CEOs and non-CEO executives in Section II.C below.

In Panel C of Table II, we also report announcement returns when splitting our sample into two groups based on the composition of the board. For the sender firms with a majority of independent outside directors, we report an insignificant average return of 0.01%. For the sender firms without a majority of independent outside directors, we find an announcement return of -0.66%,

¹² Clearly, our sample of accepted nominations (where the sender-firm board or CEO does not reject the nomination) is a censored sample in the sense that declined nominations are not observable. In Section II.D we employ a two-stage estimation procedure to test for the effect of the endogeneity of the number of directorships.

which is significantly less than 0 at the 5% level. Again, the difference in average announcement returns between events with and without a majority of independent directors is significant at the 5% level.

Finally, we condition our event study results on the agency proxies and whether the executive already holds two or more outside directorships. We find that the negative announcement returns associated with multiple-directorship executives are driven by the sender firms with greater potential agency problems. The announcement of an additional directorship for executives with low ownership (non-majority of independent directors) and two or more outside directorships reduces sender-firm announcement returns by 1.04% (1.65%), which is significant at the 1% (1%) level.

It is interesting to note that the sender firms with higher relative percentages of executive ownership have positive announcement returns for director nominees already holding multiple directorships (1.17%, significant at the 5% level).¹³ These findings are consistent with the possibility of sender firms benefiting from outside directorships for their executives through learning or cooperation. While most of our event study results display average announcement returns of less than 1%, these magnitudes are in line with earlier studies on changes in the board of directors (e.g., Rosenstein and Wyatt (1990), Byrd and Hickman (1992)).

Our results complement the research by Ferris et al. (2003) who conclude that firms in which board members hold more directorships do not underperform relevant benchmarks. First, we broaden the analysis to include sender firms and find that the sender-firm shareholder reaction to the announcement of an additional outside board nomination is independent of whether the nominee currently holds multiple outside directorships. Second, by conditioning the events on measures of potential agency problems, we find that the combination of the number of directorships and agency problems related to the sender firm helps differentiate between negative and positive shareholder reaction to board nominations of one of their executives.

To further analyze the cross-sectional differences in announcement returns, we estimate the following multivariate regression:

$$\begin{aligned} \text{CAR} = & \alpha + \beta_1 \times \text{Directorships} + \beta_2 \times (\text{Directorships} \times \text{Agency proxy}) \\ & + \gamma \times \text{Agency proxy} + \lambda \times \mathbf{X} + \varepsilon, \end{aligned} \quad (1)$$

where CAR is the cumulative abnormal return of the sender firm around the announcement that an executive of that firm is nominated to join an outside board; *Directorships* is either a dummy variable equal to 1 if the nominee has two or more outside directorships prior to the nomination (*directorshipsD*), or the actual number of outside directorships currently held by the executive (*directorships*); *Agency proxy* is either a dummy variable equal to 1 when

¹³ One concern is that managerial ownership could be related to the executive's position in the firm. However, as shown in Section II.C.1, our results are robust to controls for the position within the firm.

the executive's ownership percentage in the sender firm is below the median ownership percentage in the sample (0.15%) and equal to 0 otherwise, or a dummy variable equal to 1 if the sender firm's board does not have a majority of independent outside directors (in 37.2% of the events) and equal to 0 otherwise; X represents a vector of additional variables of interest described below.

Table III presents the multivariate regression results. We report coefficients of weighted least squares (WLS) regressions, where the weights are the reciprocals of the variance of the CARs.¹⁴ The p -values are based on White-adjusted standard errors. The dependent variable is the sender firm's CAR over the event window $[-1, 1]$.

In Models 1, 2, 3, and 5 of Table III we use the dummy variable *directorshipsD* to indicate whether the executive already sits on two or more boards prior to the nomination. For example, Model 2 shows a β_1 of 0.019 which is significant at the 1% level, suggesting that sender firms benefit from the announcement that one of their executives joins another board if the executive already has two or more outside directorships and has above-sample median ownership in the sender firm. For individuals with below-sample median ownership, however, sender-firm announcement returns are significantly lower when the nominee already sits on more than one outside board. More importantly, the total effect (the sum of β_1 and β_2) is -1.7% , statistically significant at the 1% level based upon an F -test. Finally, the negative and significant coefficient (10% level) on the agency proxy indicates lower announcement returns for sender firms in which the executive has relatively lower ownership. Overall, these findings are consistent with the interpretation that executives without proper incentive alignment are consuming perquisites by taking on additional outside directorships at the expense of the sender-firm shareholders. The findings also highlight that acquiring multiple directorships is not uniformly bad news for the sender firms since β_1 is significantly positive. This result supports the interpretation that sender-firm shareholders can benefit from executives accumulating additional outside directorships if the shareholders expect the executives to use acquired knowledge or relationships to enhance value in the employing firm.

To gain a better understanding of other factors influencing shareholder reaction to the announcement of a director nomination, we include additional variables in the remaining models of Table III. The set of variables is designed to provide insights as to conditions under which outside directorships may be favorable for sender firms and to alleviate concerns that the relation between the returns and number of directorships is a spurious one arising from the correlation with other director and firm characteristics. First, we include individual characteristics relating to the age and position of the executive. Younger executives have shorter track records and may try to signal the market as to his or her

¹⁴ We find evidence of heteroscedasticity in the variance of CAR. Standardizing CAR (the left-hand side variable) and applying OLS does not result in a best linear unbiased estimate (BLUE). WLS, where the weights are the inverse of the variances of the CARs, however, does produce BLUE (e.g., Draper and Smith (1981), Greene (1997)).

Table III

Multivariate Analysis of Sender-Firm Cumulative Abnormal Returns

The table reports coefficient estimates of WLS regressions using the sample of 349 new director nomination announcements. The weights of the regressions correspond to the inverse of the variance of the residuals from the market model used to compute the announcement return. The dependent variable of the regression is the sender firm's cumulative abnormal return CAR $[-1, 1]$. The variable *Directorships* is the number of outside directorships in publicly traded firms prior to the nomination; *DirectorshipsD* is a dummy variable equal to 1 if *Directorships* is two or more; *Agency proxy* is equal to 1 if the nominee's ownership in the sender firm is less than or equal to the median ownership in the sample or if the sender firm's board does not have a majority of independent outside directors. The following are dummy variables equal to 1 under the condition, 0 otherwise: *Age < 62 dummy*, if the individual is less than 62 years old at the time of nomination; *CEO*, if the individual is a CEO in the sender firm; *Interlock dummy*, if prior to the nomination an executive of the receiver firm sits on the board of the sender firm; *Financial receiver (sender) dummy*, if the receiver (sender) firm is in the one-digit SIC of 6; *Same two-digit SIC dummy*, if the sender and receiver firm operate in the same two-digit SIC. The variable *Sender log sales* is the log of sales of the sender firm; *Replacement dummy* is a dummy variable equal to 1 if the nominee is replacing a director in the receiver firm and 0 if the nominee is a new addition where we consider events new additions if the board size increases from the fiscal year-end prior to the nomination; *Sender (Receiver) prior industry-adjusted stock return* is the cumulative industry-adjusted stock return over the period $[-250, -20]$ using daily returns of the sender (receiver) firm; *Industry-adjusted MB sender (receiver)* is the industry adjusted market-to-book ratio; *Board meeting dummy* is equal to 1 if the number of Board meetings in the receiver firm is greater than seven (median number of meetings of receiver firms) as measured in the fiscal year prior to the event; *Relative size dummy* is a dummy variable equal to 1 if the market value of the receiver firm is greater than the market value of the sender firm; *CEO is nominating in receiver* is a dummy variable equal to 1 if the receiver firm does not have a nominating committee or if the CEO is on the committee. Accounting variables are measured at the fiscal year-end prior to the announcement or proxy filing date, and industry adjustments are made using all Compustat firms in the same two-digit SIC/year. We report *p*-values below each estimate in parentheses and the *p*-value of an *F*-test of the sum of the coefficient on *DirectorshipsD* (*Directorships*) and the interaction variable *DirectorshipsD* $\times$ *Agency proxy* (*Directorships* $\times$ *Agency proxy*) at the end of the table.

Coefficient	Variable	Agency proxy = 1 if:					
		Nominee Ownership in Sender $\leq$ Sample Median				Independent Outside Directors $\leq 50\%$ of Sender Board	
		(1)	(2)	(3)	(4)	(5)	(6)
β_1	<i>DirectorshipsD</i> (dummy)	-0.002 (0.68)	0.019 (0.01)	0.020 (0.01)		0.011 (0.08)	
β_2	<i>DirectorshipsD</i> $\times$ <i>Agency proxy</i>		-0.036 (0.00)	-0.036 (0.00)		-0.028 (0.00)	
β_1	<i>Directorships</i>				0.007 (0.00)		0.005 (0.01)
β_2	<i>Directorships</i> $\times$ <i>Agency proxy</i>				-0.012 (0.00)		-0.012 (0.00)
	<i>Agency proxy</i>		-0.007 (0.08)	-0.008 (0.08)	-0.012 (0.01)	-0.007 (0.08)	-0.007 (0.07)
Additional Variables							
	<i>Age < 62 dummy</i>			-0.004 (0.50)	-0.003 (0.66)	-0.000 (0.96)	0.000 (0.97)

(continued)

Table III—Continued

Variable	Agency proxy = 1 if:					
	Nominee Ownership in Sender ≤ Sample Median				Independent Outside Directors ≤50% of Sender Board	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>CEO</i>			−0.005 (0.05)	−0.007 (0.04)	−0.006 (0.05)	−0.006 (0.05)
<i>Interlock dummy</i>			−0.003 (0.68)	−0.003 (0.70)	−0.002 (0.78)	−0.003 (0.66)
<i>Financial sender dummy</i>			−0.004 (0.45)	−0.004 (0.41)	−0.004 (0.40)	−0.005 (0.31)
<i>Financial receiver dummy</i>			0.007 (0.07)	0.006 (0.08)	0.007 (0.07)	0.006 (0.07)
<i>Same two-digit SIC dummy</i>			0.009 (0.05)	0.008 (0.05)	0.008 (0.05)	0.007 (0.07)
<i>Sender log sales</i>			0.001 (0.36)	0.002 (0.21)	0.000 (0.74)	0.001 (0.64)
<i>Replacement dummy</i>			0.002 (0.70)	0.001 (0.85)	0.002 (0.67)	0.001 (0.88)
<i>Sender prior industry-adjusted stock return</i>			−0.007 (0.06)	−0.006 (0.07)	−0.005 (0.08)	−0.006 (0.06)
<i>Receiver prior industry-adjusted stock return</i>			0.001 (0.84)	0.000 (0.97)	0.001 (0.84)	0.001 (0.88)
<i>Industry-adjusted MB sender</i>			0.000 (0.89)	0.000 (0.98)	−0.000 (0.97)	0.000 (0.88)
<i>Industry-adjusted MB receiver</i>			0.008 (0.01)	0.007 (0.03)	0.008 (0.01)	0.007 (0.02)
<i>Board meeting dummy</i>			0.002 (0.55)	0.003 (0.41)	0.001 (0.78)	−0.000 (0.95)
<i>Relative size dummy</i>			−0.002 (0.55)	−0.002 (0.61)	0.001 (0.74)	−0.001 (0.90)
<i>CEO nominating in receiver</i>			0.001 (0.80)	0.001 (0.87)	0.000 (0.92)	0.001 (0.69)
Constant	−0.002 (0.24)	−0.005 (0.04)	−0.014 (0.37)	−0.013 (0.39)	−0.008 (0.60)	−0.012 (0.44)
Adjusted R^2	0.001	0.09	0.19	0.18	0.17	0.20
<i>p-values of F-tests:</i> $\beta_1 + \beta_2 = 0$		0.00	0.02	0.03	0.01	0.00

perceived quality by accepting outside directorships. On the other hand, older executives with less time until retirement might consume additional personal perquisites due to the shorter period available for ex post settling. In addition, accepting outside directorships may be a normal behavior for senior executives in the typical succession process (see e.g., Fama (1980), Brickley et al. (1999)). We control for the age of the executive using a dummy variable equal to 1 if the director nominee is under the age of 62 [*Age < 62 dummy*]. We also control for

the position of the director nominee in the sender firm with a dummy variable equal to 1 if the nominee is the CEO in the sender firm [*CEO dummy*].

We also include firm-specific variables relating to both the sender and receiver firm. To control for potential conflicts of interest, we include a dummy variable equal to 1 if the sender and receiver firms have interlocking board members, that is, an executive of the receiver firm already sits on the sender firm's board [*Interlock dummy*] (see e.g., Hallock (1997), Fich (2005)). We find that more than 4% of the events have an interlocking board. We also include a dummy variable to control for the possible influence of directors from the financial service industry, defined as firms in the one-digit SIC of 6 [*Financial sender dummy* and *Financial receiver dummy*] (see e.g., Booth and Deli (1999), Kracaw and Zenner (2000), Kroszner and Strahan (2001)). In our sample, we find that 16% (12%) of the receiver (sender) firms are financial firms given the aforementioned definition. We control for industry-specific human capital of the director appointment by including a dummy variable equal to 1 if the sender firm and receiver firm operate in the same two-digit SIC [*Same two-digit SIC dummy*], which occurs in 7% of the events.¹⁵ We also control for potential size effects of the sender with the logarithm of sales [*Sender log sales*]. It is possible that the shareholders react differently to a new nomination versus a replacement of a director at the receiver firm, and therefore we include a dummy variable equal to 1 if the nomination is a replacement [*Replacement dummy*].¹⁶ As proxies for prior performance and growth opportunities of both sender and receiver firms, we include industry-adjusted stock returns over the period starting 250 days prior to the event until 20 days before the event [*Prior industry-adjusted stock return*] and the industry-adjusted market-to-book ratio [*Industry-adjusted MB*] with adjustments made relative to the median of the industry defined at the two-digit SIC level. The prior stock return as well as the industry-adjusted market-to-book ratio of the receiver firm may also represent the time commitment associated with the new directorship. We expect that receiver firms with poorer prior performance require a greater monitoring commitment going forward. For the same reason, we also include a dummy variable equal to 1 if the board of the receiver firm has met more than seven times (the median) in the previous fiscal year [*Board meeting dummy*] (Vafeas (1999)).¹⁷ Finally, we control for prestige of the new directorship by including a dummy variable equal to 1 if the receiver firm's market capitalization is greater than the sender firm [*Relative size dummy*], and we control for CEO involvement in the nominating process by including a dummy variable equal to 1 if the CEO of the receiver firm is on the nominating committee or if a nominating committee does not exist [*CEO nominating in receiver*] (Shivdasani and Yermack (1999)).

When we include these additional variables in Model 3, our main results are unchanged. We find that sender-firm shareholders react negatively to the

¹⁵ In additional tests, we include a dummy variable equal to 1 if the sender and receiver firm disclosed material business relationships. This variable is not significant in our tests.

¹⁶ This dummy variable is 0 if the number of board members increased and 1 otherwise.

¹⁷ Qualitatively similar results obtain if we use the continuous variable.

announcement of the additional directorship when the executive has lower ownership in the sender firm and has two or more other directorships. We also find a negative relation for sender-firm CEOs, which is consistent with a higher opportunity cost for CEOs relative to other executives. It is also possible that the market interprets an outside directorship as a signal that the CEO is more likely to leave than expected. However, investigating CEO turnover, we find only 12% of CEOs retire or leave their job with the sender firm within 2 years, which is lower than the CEO turnover rate reported in Huson, Parrino, and Starks (2001) for this time period. The *prior industry-adjusted stock return* for the sender firm is negatively related to the CAR, which is consistent with the interpretation that the nomination draws attention to the sender firm and the market reevaluates recent performance. This finding is also interesting in light of the CII recommendation that CEOs should only consider taking on outside directorships when their main firm's performance is above industry average.

From the sender firm's perspective, we find higher announcement returns when the executive joins the board of a financial firm, a firm in the same two-digit SIC, or a firm with more growth opportunities. By joining the board of a financial firm, the executive may establish networking relationships or facilitate information transfer that lowers the cost of raising capital for the sender firm. By joining the board of a firm in a similar industry or with greater growth opportunities, the executive can benefit the sender firm through industry-specific knowledge transfer between the two firms or by learning about new technologies, products, or management innovation. We cannot yet conclude whether appointments within the same two-digit SIC industry are evidence of the sender firm expropriating from the receiver firm or whether it is a mutually beneficial arrangement, consistent with cooperation or collusion. We will address this possibility in Section II.E.1 by analyzing the announcement return for receiver-firm shareholders. All of the remaining variables are insignificant.

In Model 5 of Table III, we present the same regression but use independence of the sender firm's board as our measure of agency concerns in the sender firm. Our results are consistent throughout. We find that sender-firm shareholders react negatively to the announcement of the additional directorship when the sender-firm board does not have a majority of independent outside directors, and the relation is more negative when the executive already holds multiple outside directorships. The results suggest that ineffective monitoring by the sender firm's board has allowed the executive to accept additional directorships at a cost to the firm. The significance and magnitude of the other variables are remarkably similar to the results in Model 3.

We use a continuous measure of the number of directorships in Models 4 and 6 of Table III. While the inferences on all of the variables remain the same as in the earlier models, the interpretation of the *directorships* variable changes. For example, in Model 4, the coefficient on β_1 is 0.007 and the coefficient on the interaction variable with the agency proxy (β_2) is -0.012 . The findings suggest that sender-firm announcement returns are higher when an executive with

above-sample median ownership accepts an additional outside directorship, while each additional director nomination by an executive with lower ownership results in lower sender-firm announcement returns. Notice that in this linear specification the marginal impact of an additional directorship is constant. Given the prior results using the dummy variable for multiple directorships (*directorshipD*), we proceed by investigating whether the marginal effect of an additional outside directorship nomination depends on the number of directorships currently held by the executive.

Table IV presents the results from estimating six different regressions containing non-linear specifications for the number of directorships. To help with the interpretation and provide a better understanding of potential nonlinearities, we also display the results graphically in Figure 2. Each regression includes the additional variables described above for Table III, however we do not display the results for brevity.¹⁸

First, we estimate a piece-wise linear regression (e.g., Morck, Shleifer, and Vishny (1988)) with two variables computed as follows: $\text{Min}(\text{Directorships}, 1)$ takes the value of 1 if the executive already holds at least one outside directorship and is 0 otherwise; and, $\text{Max}(\text{Directorships} - 1, 0)$ takes the value of the maximum of the variable *directorships* - 1 or 0. For example, if an executive holds three directorships prior to the current nomination, then the first variable will equal 1 and the second variable will equal 2 (i.e., the higher of $3 - 1 = 2$ or 0). The piece-wise linear specification allows for different marginal effects depending on whether the executive already holds one or more outside directorships. In Models 1 and 3 of Panel A, we report the results without allowing for different slopes based on potential agency problems. The marginal return of the first outside directorship, that is, for executives with no prior outside directorships, is -0.25%.¹⁹ For an additional directorship, the expected announcement return for sender firms is positive ($0.95\% = 1.20 - 0.25$) for those with one prior board seat; however, the marginal effect for the second seat and beyond is negative. If the executive has three or more prior board seats, the expected return is negative.

Our previous analysis suggests that we should also condition the effect on potential agency problems, and we report the results in Models 2 and 4 of Panel A. Figure 2 again displays the expected announcement returns for both sets of firms given the number of prior outside directorships. Using either measure of potential agency problems, we find that additional directorships are associated with higher returns for firms with lower potential agency problems. While the marginal effect initially is 0 for the first directorship and approximately 1% for the second directorship, subsequent directorships only increase sender-firm value by an additional 0.6%. The higher returns associated with the second directorship are consistent with both the signaling and learning explanations, and

¹⁸ Inferences about the variables remain the same as reported in Table III for all of the non-linear specifications.

¹⁹ This corresponds to the average announcement return for events with zero directorships and is not based upon the regression results.

the lower subsequent returns for additional directorships are consistent with less value from further outside certification while maintaining possible benefits from networking and/or learning. For firms classified as having greater potential agency problems, however, executives accepting additional outside

Table IV
Sender-Firm Announcement Return and the Number of Directorships, Non-linear Specifications

The table reports coefficient estimates of three types of regressions using the sample of 349 new director nomination announcements, where the dependent variable is the sender firm's cumulative abnormal return CAR $[-1, 1]$. In Panel A we report a piece-wise linear regression where the independent variables are $\text{Min}(\text{Directorships}, 1)$ and $\text{Max}(\text{Directorships} - 1, 0)$. In Panel B we report a log specification with $\ln(\text{Directorships} + 1)$ as the independent variable, and in Panel C we report a regression containing *Directorships* and *Directorships*-squared as independent variables. A second set of regressions also contains interaction variables with an agency proxy dummy variable. In addition, all regressions contain the additional variables used in Table III (not reported). Figure 2 displays selected results graphically.

Variable	Agency proxy = 1 if:			
	Nominee Ownership in Sender ≤ Sample Median		Independent Outside Directors ≤ 50% of Sender Board	
	(1)	(2)	(3)	(4)
Panel A: Piece-wise Linear Regression				
$\text{Min}(\text{Directorships}, 1)$	0.012 (0.01)	0.009 (0.08)	0.011 (0.01)	0.010 (0.05)
$\text{Max}(\text{Directorships} - 1, 0)$	-0.005 (0.04)	0.006 (0.02)	-0.004 (0.07)	0.006 (0.02)
$\text{Min}(\text{Directorships}, 1) \times \text{Agency proxy}$		-0.005 (0.34)		-0.007 (0.39)
$\text{Max}(\text{Directorships} - 1, 0) \times \text{Agency proxy}$		-0.016 (0.00)		-0.014 (0.00)
Agency proxy	-0.009 (0.04)	-0.009 (0.04)	-0.008 (0.04)	-0.009 (0.04)
Additional Variables	YES	YES	YES	YES
Adjusted R^2	0.11	0.17	0.12	0.19
Panel B: Log Specification Regression				
$\ln(\text{Directorships} + 1)$	0.003 (0.44)	0.016 (0.00)	0.004 (0.27)	0.013 (0.00)
$\ln(\text{Directorships} + 1) \times \text{Agency proxy}$		-0.024 (0.00)		-0.025 (0.00)
Agency proxy	-0.006 (0.09)	-0.012 (0.02)	-0.009 (0.03)	-0.007 (0.06)
Additional Variables	YES	YES	YES	YES
Adjusted R^2	0.06	0.12	0.09	0.14

(continued)

Table IV—Continued

Variable	Agency proxy = 1 if:			
	Nominee Ownership in Sender ≤ Sample Median		Independent Outside Directors ≤50% of Sender Board	
	(1)	(2)	(3)	(4)
Panel C: Square-Term Regression				
<i>Directorships</i>	0.008 (0.04)	0.010 (0.01)	0.009 (0.03)	0.013 (0.01)
<i>Directorships-squared</i>	−0.002 (0.08)	−0.001 (0.01)	−0.002 (0.08)	−0.002 (0.08)
<i>Directorships × Agency proxy</i>		−0.004 (0.09)		−0.009 (0.08)
<i>Directorships-squared × Agency proxy</i>		−0.002 (0.21)		−0.001 (0.57)
<i>Agency proxy</i>	−0.010 (0.03)	−0.009 (0.07)	−0.009 (0.03)	−0.006 (0.10)
Additional Variables	YES	YES	YES	YES
Adjusted R^2	0.09	0.16	0.11	0.18

directorships beyond the first board seat have significantly lower returns. For executives with lower relative ownership and firms without a majority of independent directors, sender-firm announcement returns are reduced by 1.6% and 1.4%, respectively.

A clear drawback of the piece-wise linear regression is the ad hoc specification of the break point. For robustness, we also show results in Panels B and C using a log specification and a square-term specification. The estimates of the marginal effect of an additional outside directorship are virtually identical for events classified as having lower potential agency problems. All three specifications imply decreasing marginal benefits to additional outside directorships. For the set of firms classified as having greater potential agency problems, we do not find that the marginal costs of additional directorships decrease with subsequent directorships. This observed pattern is consistent with the interpretation that executives at firms with lower relative agency problems can benefit their own firm, possibly through signaling, networking, or learning. The highest marginal return to sender firms is for the first two outside board nominations, beyond which any signaling effect should be minimal. On the other hand, the value of networking and relationship-building should remain important as the number of outside board seats increases. Although it is interesting to observe the non-linearity in the effect of the number of directorships, this curvature seems to only be a second-order effect. The primary difference in sender-firm shareholder returns is still based upon differentiating between firms with higher versus lower potential agency problems.

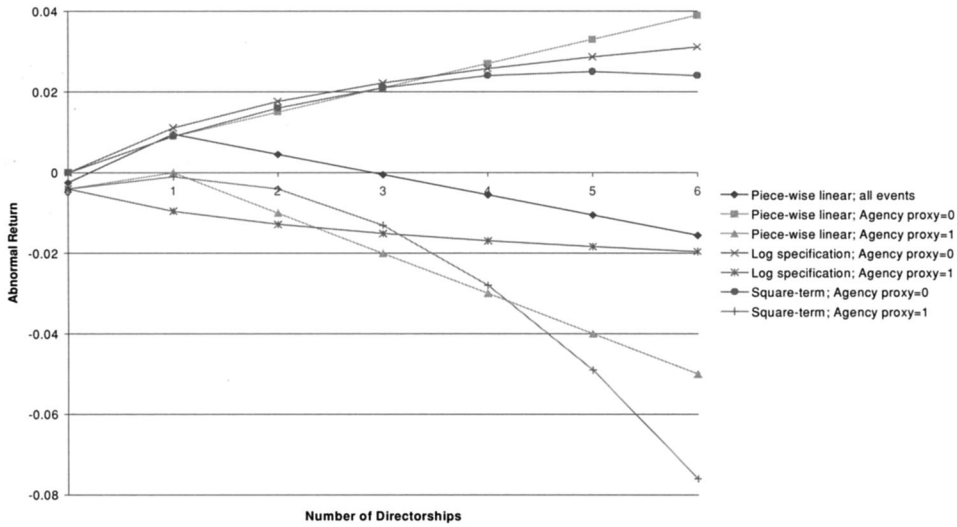


Figure 2. Relationship between the number of directorships and sender firm abnormal return implied by various non-linear regressions. The graph plots the abnormal return given a certain number of directorships employing the regression coefficients of Table IV. The piece-wise linear regression is $Directorships = \alpha + \beta_1 \times \text{Min}(Directorships, 1) + \beta_2 \times \text{Max}(Directorships - 1, 0)$. We also estimate the regression using an interaction variable specification, where the agency proxy = 1 when the executive has below-median ownership in the sender firm. The log specification uses $\ln(Directorships + 1)$ as the independent variable and the square-term specification uses $Directorships$ and $Directorships$ -squared as the independent variables. The abnormal return for events with $Directorships = 0$ is the average announcement return of $[-0.0025]$ for such events. Interaction specifications have an average announcement return of 0.000 when $Agency\ proxy = 0$ and -0.004 when $Agency\ proxy = 1$.

C. Further Refinements and Robustness Tests

C.1. CEOs versus Non-CEOs

In Table III we report a negative coefficient on the dummy variable for CEOs. This indicates lower sender-firm returns when the executive at the center of the decision-making process accepts an outside directorship, and is consistent with the interpretation that the marginal value of time and effort for CEOs of the sender firm is higher than for other executives (e.g., Smith and Watts (1992)). We also test for differences in the relation between the number of directorships and announcement returns for CEOs and other executives by further interacting the variables *directorships* and *directorships* $\times$ *agency proxy* with the *CEO dummy* variable. The coefficients on these new interaction variables are β_3 and β_4 , and we report the results in Table V. Consistent with our earlier results, we find that the coefficients on the *agency proxy* and the *CEO dummy* are both negative and significant at the 5% and 10% level, respectively, indicating that CEOs and firms with greater potential agency problems are associated with lower announcement returns. We also find a significant negative coefficient for β_4 , suggesting that additional directorships for CEOs from firms with greater

Table V
Sender-Firm Announcement Return and CEOs

The table reports coefficient estimates of WLS regressions using the sample of 349 new director nomination announcements in the first and third columns (All) and 191 announcements involving CEOs only in the second and fourth columns (CEO-only). The dependent variable of the regression is the sender firm's cumulative abnormal return CAR $[-1, 1]$. The weights of the regressions correspond to the inverse of the variance of the residuals from the market model used to compute the announcement return. CEO tenure is the number of years a CEO has been in office until the nomination. Definitions for all other variables are listed in the heading of Table III. All accounting data is for the fiscal year-end before the announcement. We report p -values of F -tests of combinations of the coefficients at the end of the table.

Coefficient	Variable	Agency proxy = 1 if:									
		Nominee Ownership in Sender $\leq$ Sample Median					Independent Outside Directors $\leq 50\%$ of Sender Board				
		All		CEO-Only			All		CEO-Only		
		Coefficient	p -Value	Coefficient	p -Value	Coefficient	Coefficient	p -Value	Coefficient	p -Value	p -Value
β_1	<i>Directorships</i>	0.005	0.03	0.008	0.01	0.006	0.006	0.02	0.009	0.01	0.01
β_2	<i>Directorships</i> $\times$ <i>Agency proxy</i>	-0.012	0.00	-0.019	0.00	-0.012	-0.012	0.00	-0.021	0.00	0.00
β_3	<i>Directorships</i> $\times$ <i>CEO</i>	0.002	0.51	-	-	0.003	0.003	0.34	-	-	-
β_4	<i>Directorships</i> $\times$ <i>Agency proxy</i> $\times$ <i>CEO</i>	-0.009	0.09	-	-	-0.010	-0.010	0.08	-	-	-
	<i>Agency proxy</i>	-0.010	0.04	-0.007	0.06	-0.010	-0.010	0.05	-0.007	0.08	0.08
	<i>CEO</i>	-0.004	0.08	-	-	-0.005	-0.005	0.07	-	-	-
Additional Variables											
	<i>Age < 62 dummy</i>	-0.004	0.43	-0.011	0.19	-0.002	-0.002	0.71	-0.002	0.88	0.88
	<i>CEO tenure (in years)</i>	-	-	-0.001	0.01	-	-	-	-0.001	0.03	0.03
	<i>Interlock dummy</i>	-0.000	0.90	0.005	0.47	-0.007	-0.007	0.20	0.004	0.67	0.67
	<i>Financial sender dummy</i>	-0.003	0.55	-0.003	0.56	-0.004	-0.004	0.45	-0.002	0.74	0.74
	<i>Financial receiver dummy</i>	0.006	0.08	0.006	0.06	0.007	0.007	0.07	0.006	0.06	0.06
	<i>Same two-digit SIC dummy</i>	0.008	0.04	0.006	0.05	0.008	0.008	0.04	0.008	0.04	0.04
	<i>Sender log sales</i>	0.001	0.59	0.001	0.58	0.000	0.000	0.84	0.001	0.71	0.71

(continued)

Table V—Continued

Variable	Agency proxy =1 if:									
	Nominee Ownership in Sender ≤ Sample Median					Independent Outside Directors ≤50% of Sender Board				
	Coefficient	p-Value	Coefficient	p-Value	Coefficient	Coefficient	p-Value	Coefficient	p-Value	p-Value
	All		CEO-Only		All	CEO-Only		CEO-Only		
<i>Replacement dummy</i>	0.002	0.66	0.002	0.71	0.001	0.69	0.001	0.87		0.87
<i>Sender prior industry-adjusted stock return</i>	−0.005	0.08	−0.006	0.07	−0.004	0.09	−0.006	0.06		0.06
<i>Receiver prior industry-adjusted stock return</i>	0.001	0.78	−0.002	0.79	−0.001	0.87	−0.000	0.94		0.94
<i>Industry-adjusted MB sender</i>	−0.000	0.94	0.001	0.69	−0.000	0.93	0.002	0.56		0.56
<i>Industry-adjusted MB receiver</i>	0.007	0.06	0.011	0.06	0.008	0.02	0.013	0.05		0.05
<i>Board meeting dummy</i>	−0.001	0.73	0.010	0.09	−0.002	0.79	0.002	0.66		0.66
<i>Relative size dummy</i>	−0.000	0.91	−0.002	0.68	0.001	0.80	−0.003	0.57		0.57
<i>CEO nominating in receiver</i>	0.001	0.85	−0.003	0.53	0.000	0.85	−0.003	0.54		0.54
Constant	−0.013	0.35	−0.009	0.50	−0.011	0.33	−0.014	0.55		0.55
Adjusted R ²	0.20		0.25		0.19		0.23			
<i>p-values of F-tests:</i>										
$\beta_1 + \beta_2 = 0$		0.02		0.01		0.05		0.02		0.02
$\beta_1 + \beta_3 = 0$		0.01		—		0.00		—		—
$\beta_1 + \beta_2 + \beta_3 + \beta_4 = 0$		0.04		—		0.05		—		—

agency problems are more costly than for non-CEO executives. Our interpretation of this result is that the marginal value of time spent at the sender firm for the CEO is higher than for non-CEOs. While the statistical significance is relatively weak, the economic effect appears to be important. For example, announcement returns for sender firms are 1% lower in firms for which the nominee is the CEO relative to a non-CEO and for which the board does not have a majority of independent directors. One concern with this specification is that our measures for agency problems and position in the firm could be negatively correlated, especially in the case of our sender-firm ownership measure. In addition, individual ownership is typically related to tenure in the firm. In that case, measures of ownership may represent experience or career concerns in addition to incentive alignment with shareholders. Therefore, we also report two regressions in which we only include CEOs in the sample and control for the tenure of the CEO.²⁰ The sample is reduced to 191 events and we reclassify observations as having high or low relative ownership based only on the CEO observations. As shown in Table V, the results are qualitatively similar to those reported in Table III, although the coefficient estimates are larger in absolute value. These findings should alleviate concerns about possible correlations among the agency proxies, executive position, and tenure in the sender firm.

C.2. Growth Opportunities and the Marginal Value of Time

The previous section investigates whether executives at the center of a firm's decision-making process, that is, CEOs, affect shareholder value differently from non-CEO executives when accepting nominations to serve on outside boards. One explanation for finding a more pronounced shareholder reaction for CEOs is that the marginal value of time for the CEO is higher than for non-CEOs, an interpretation that is consistent with Smith and Watts (1992). Their argument also implies that sender firms with more growth opportunities should suffer more if one of their executives joins an outside board given that the marginal value or opportunity cost of time for such an executive is higher relative to an executive from a firm without growth opportunities. The results of such an analysis should be particularly interesting to sender-firm shareholders and boards since one might also expect high growth firms to benefit most from opportunities to network and convey information to other executives about their own company's projects or products.

Using an indicator variable, we classify firms as *high growth sender* firms if their market-to-book ratio is above the industry median market-to-book ratio. The regression contains interaction variables of *high growth sender* with *directorships* and *directorships* $\times$ *agency proxy*. The coefficients on these new interaction variables are β_3 and β_4 , respectively, and we report the results in Table VI. It is interesting to note that the main driver of the cross-sectional

²⁰ We collect this information from Execucomp and proxy statements. Unfortunately, for non-CEO executives, tenure is rarely available and we cannot use tenure as a control variable in the other regressions. We measure tenure as the number of years the CEO has already spent in office.

Table VI
Sender-Firm Announcement Returns, Number of Directorships, and Growth Opportunities

The table reports coefficient estimates of WLS regressions using the sample of 349 new director nomination announcements. The weights of the regressions correspond to the inverse of the variance of the residuals from the market model used to compute the announcement return. The dependent variable of the regression is the sender firm's cumulative abnormal return CAR $[-1, 1]$; *Directorships* is the number of outside directorships in publicly traded firms prior to the nomination; *High growth sender* is a dummy variable equal to 1 if the sender firm's market-to-book (MB) ratio is larger than the median sender firm's MB ratio and 0 otherwise; definitions for all other variables are listed in the heading of Table III. All accounting data is for the fiscal year-end before the announcement. The p -values of F -tests of the sum of the β -coefficients are reported at the end of the table.

Coefficient	Variable	Agency proxy = 1 if:			
		Nominee Ownership in Sender $\leq$ Sample Median		Independent Outside Directors $\leq 50\%$ of Sender Board	
		Coefficient	p -Value	Coefficient	p -Value
β_1	<i>Directorships</i>	0.008	0.03	0.007	0.10
β_2	<i>Directorships</i> $\times$ <i>Agency proxy</i>	-0.018	0.01	-0.013	0.04
β_3	<i>Directorships</i> $\times$ <i>High growth sender</i>	-0.004	0.41	-0.003	0.49
β_4	<i>Directorships</i> $\times$ <i>Agency proxy</i> $\times$ <i>High growth sender</i>	-0.012	0.03	-0.011	0.08
	<i>Agency proxy</i>	-0.009	0.02	-0.012	0.05
	<i>High growth sender</i>	0.006	0.14	0.003	0.48
	Additional Variables				
	<i>Age < 62 dummy</i>	-0.003	0.46	-0.003	0.51
	<i>CEO</i>	-0.005	0.07	-0.006	0.06
	<i>Interlock dummy</i>	-0.001	0.91	-0.006	0.28
	<i>Financial sender dummy</i>	-0.003	0.42	-0.003	0.48
	<i>Financial receiver dummy</i>	0.006	0.09	0.006	0.08
	<i>Same two-digit SIC dummy</i>	0.008	0.04	0.007	0.05
	<i>Sender log sales</i>	0.002	0.38	0.000	0.90
	<i>Replacement dummy</i>	0.002	0.68	0.003	0.55
	<i>Sender prior industry-adjusted stock return</i>	-0.005	0.07	-0.004	0.08
	<i>Receiver prior industry-adjusted stock return</i>	0.001	0.80	-0.000	0.89
	<i>Industry-adjusted MB receiver</i>	0.005	0.08	0.007	0.03
	<i>Board meeting dummy</i>	-0.002	0.59	-0.001	0.84
	<i>Relative size dummy</i>	0.000	0.98	-0.000	0.89
	<i>CEO nominating in receiver</i>	0.001	0.80	0.001	0.73
	Constant	-0.022	0.28	-0.012	0.44
	Adjusted R^2	0.21		0.20	
	p -Values of F -tests:				
	$\beta_1 + \beta_2 = 0$		0.05		0.06
	$\beta_1 + \beta_3 = 0$		0.27		0.43
	$\beta_1 + \beta_2 + \beta_3 + \beta_4 = 0$		0.06		0.05

variation in shareholder reaction remains the classification of firms with higher or lower potential agency problems. In addition, the returns are significantly lower for those sender firms with agency problems and greater growth opportunities, which is consistent with shareholders in these firms reacting negatively to information that the executive may spend less time at the sender firm. The lower announcement returns are also consistent with an interpretation that the market reassesses the growth opportunities of sender firms with greater potential agency problems, given that their executives are choosing to expend effort and time outside the firm.

D. Expected Number of Directorships in Two-Stage Regression Framework

In Table III we report that even individuals with at most one current outside directorship negatively affect shareholder value in firms classified as having agency problems (coefficients on *agency proxy* variables were between -0.007 and -0.012). We would expect, however, that shareholders anticipate to some extent that individuals from firms with agency concerns will be more likely to take on (too many) outside directorships. Therefore, we want to control for the number of directorships an executive is expected to hold and then test whether approaching this number causes a different shareholder reaction than moving beyond the expected number of outside directorships. To implement this test, we first have to say something about the “expected” number of directorships for an individual. Unfortunately, we are unaware of a theory or model which provides guidance as to the optimal or expected number of outside directorships for an executive. Therefore, we employ a positive approach using a model with independent variables that are closely related to the variables used by Booth and Deli (1996), Shivdasani and Yermack (1999), and Ferris and Jagannathan (2001). The sample for the first-stage regression is based on the sample of firms covered in the IRRC database and Compact Disclosure. Details of the sample selection are reported in the Appendix. We use the predictions to estimate the expected number of directorships for the second-stage regression.

D.1. Empirical Results of the First-Stage Regression

The results of the first-stage Poisson maximum likelihood regressions are reported in Table VII. We find that individuals hold more directorships if they are older and if they hold the position of chairman. The number of directorships in publicly traded firms is also positively related to the size and market-to-book ratio of the sender firm. Non-CEO executives and individuals from financial institutions hold fewer directorships.

Our results are generally consistent with the results reported by Booth and Deli (1996) for a sample of firms in 1989 to 1990 and by Ferris and Jagannathan (2001) for a sample of firms in 1994 to 1995. Although Booth and Deli find a negative association between the market-to-book ratio and the number of outside directorships held, we find a positive relation for our sample which is also

Table VII
Expected Number of Directorships, First-Stage Regression

The sample consists of 2,315 directors of publicly traded firms with data on CRSP, Compustat, Execucomp, IRRG, and Compact Disclosure 1996. The directors also are executives of a publicly traded firm in 1996. The firm at which the individual holds such a position is called the sender firm. The number of directorships is the dependent variable. It is the sum of all the directorships in publicly traded companies (listed on Compact Disclosure) minus one (to exclude the directorship in the sender firm). The variable *Age* is the person's age; *Chairman* is a dummy variable equal to 1 if the person is a chairman; and, *Otherexec* is a dummy variable equal to 1 if the person is a President, CFO, COO, VP, SVP, or an executive in a subsidiary. The remaining variables refer to the sender firm. The variable *Board size* is the number of directors in the firm; *Log sales* is the logarithm of sales; *Market-to-book* is computed as the ratio of the market value to the book value of the firm, where the market value is the market value of equity plus the book value of assets minus the book value of equity; *R&D/Sales* is the ratio of R&D to sales where R&D is set at the industry average (three-digit SIC) if missing; *Financial dummy* is equal to 1 if the one-digit SIC is 6; *Utility dummy* is equal to 1 if the one-digit SIC is 4. The variable *ROA* is the ratio of operating income before depreciation to total assets, and *Independent directors/board size* is the ratio of independent outside directors over board size of the sender firm. The ownership variables are dummy variables equal to 1 if the executive holds the corresponding fraction of shares in the employer's company. In the sample, 1,702 observations have 0 outside directorships, 613 observations have one or more outside directorships, and the maximum is eight outside directorships. The first two regressions are Poisson regressions estimated using the maximum likelihood technique. The last regression is a Tobit regression with a left-censored dependent variable. The *p*-value of the goodness-of-fit test is based on a χ^2 -statistic that tests whether the regression specification can be rejected (Greene (1997)).

Variables: Based on Sender-Firm Characteristics	Dependent Variable: Number of Directorships in Publicly Traded Firms (Exclusive of Sender-Firm Directorship)					
	Poisson Regressions				Tobit Regression	
	Coefficient	<i>p</i> -Value	Coefficient	<i>p</i> -Value	Coefficient	<i>p</i> -Value
<i>Age</i>	0.020	0.00	0.019	0.00	0.024	0.00
<i>Chairman</i>	0.735	0.00	0.711	0.00	1.082	0.00
<i>Otherexec</i>	-0.867	0.00	-0.860	0.00	-1.237	0.00
<i>Board size</i>	0.043	0.00	0.045	0.00	0.058	0.00
<i>Log sales</i>	0.267	0.00	0.249	0.00	0.428	0.00
<i>Market-to-book</i>	0.096	0.01	-		0.177	0.00
<i>R&D/Sales</i>	-		-0.142	0.66	-	
<i>Financial dummy</i>	-0.553	0.02	-0.617	0.01	-1.037	0.00
<i>Utility dummy</i>	0.110	0.30	0.062	0.59	0.035	0.84
<i>ROA</i>	0.224	0.69	1.045	0.03	-0.536	0.47
<i>Independent directors/ board size</i>	-0.863	0.00	-0.849	0.00	-1.182	0.00
<i>OwnershipD 1-5%</i>	-0.021	0.84	-0.019	0.91	-0.124	0.42
<i>OwnershipD 5-10%</i>	-0.697	0.02	-0.710	0.01	-0.978	0.00
<i>OwnershipD 10-20%</i>	-0.126	0.59	-0.124	0.60	-0.421	0.21
<i>OwnershipD >20%</i>	-0.668	0.02	-0.651	0.02	-0.744	0.04
Constant	-5.242	0.00	-5.217	0.00	-7.062	0.00
Pseudo R^2	0.20		0.20		0.13	
Observations	2,315		2,315		2,315	
Goodness-of-fit (<i>p</i> -value)		0.81		0.79		-
Left-censored variables	-		-		1,702	

consistent with Ferris and Jagannathan (2001) using 1995 data.²¹ Since the market-to-book ratio can proxy for growth opportunities as well as the market's assessment of managerial quality, we estimate a second regression and include the ratio of R&D-to-sales to represent growth opportunities and the ratio of operating income before depreciation to total assets (ROA) as a measure of performance.²² We find an insignificant negative coefficient on the R&D to sales variable and a significant positive coefficient on ROA. Since ROA is insignificant in the market-to-book regression, it is possible that the positive coefficient on the market-to-book ratio reflects performance rather than growth opportunities. This interpretation is also consistent with prior research suggesting that managers with stronger prior performance receive more opportunities for outside directorships (Brickley et al. (1999)).

We also include variables similar to our agency proxies in Table III in order to investigate whether potential agency problems influence the number of directorships held by individuals. The significant negative coefficient on the fraction of independent directors supports our notion that individuals endure less scrutiny from the board when accepting outside directorships. We also find that individuals with higher levels of ownership in their employer's firm hold fewer outside directorships; however, this ownership effect does not seem to be linear.²³ The significance of the proxies for board independence and ownership reinforces the need for robustness checks using our two-stage procedure. Qualitatively similar results obtain if we employ the Tobit estimation technique as shown in the third regression.

D.2. Empirical Results of the Second-Stage Regression

The second-stage regressions reported in Table VIII are similar to those reported in Table III, except that we replace our *directorships* variable with variables that adjust for the expected number of directorships using the results from the first model of Table VII.²⁴ The expected number of directorships held by an individual is called $E(\text{Directorships})$ and is computed as $E(\text{Directorships}) = \exp(\hat{\beta}'x)$, where x is the vector of variables used in the first-stage regression, and $\hat{\beta}'$ is the coefficient-vector of the Poisson maximum likelihood regression.

Since we are interested in determining whether shareholders react differently depending on whether the individual moves toward or away from the

²¹ We also employ a Tobit regression as in Booth and Deli (1996) and find a positive coefficient on the market-to-book ratio, as shown in the last column of Table VII.

²² For firms with a missing value of R&D, we assume that they have the industry average R&D, measured at the two-digit SIC level. We do not use a long-term performance measure of ROA as in Brickley et al. (1999) because we do not know how long the individual has been with the current employer.

²³ The definition of the ownership variables is different from Table III because we rely on the information collected by the IRRS which only contains ownership levels in the specified ranges. To compute the predicted number of directorships we create dummy variables in our main sample as well.

²⁴ We obtain similar results if we use the specification with the R&D/Sales ratio or if we use the Tobit specification.

Table VIII
Sender-Firm Announcement Returns and Number of Directorships,
Second-Stage Regression

The table reports coefficient estimates of WLS regressions using the sample of 349 new director nomination announcements. The weights of the regressions correspond to the inverse of the variance of the residuals from the market model used to compute the announcement return. The dependent variable of the regression is the sender firm's cumulative abnormal return CAR $[-1, 1]$. The variable *Directorships* is the number of outside directorships in publicly traded firms prior to the nomination; $E(Directorships)$ is the expected number of directorships computed from Table VII using the coefficients from the second Poisson regression [$E(Directorships) = \exp(\beta'x)$]; $MAX[Directorships - E(Directorships), 0]$ is positive if the actual number of directorships an individual already holds is higher than the expected number of directorships and 0 otherwise; $MIN[Directorships - E(Directorships), 0]$ is negative if the actual number of directorships is lower than the expected number and 0 otherwise. Definitions for all other variables are listed in the heading of Table III. All accounting data is for the fiscal year-end before the announcement. The p -values of F -tests of the sum of the β -coefficients are reported at the end of the table.

		Agency proxy = 1 if:			
		Nominee Ownership in Sender $\leq$ Sample Median		Independent Outside Directors $\leq 50\%$ of Sender Board	
Coefficient	Variable	Coefficient	p -Value	Coefficient	p -Value
β_1	$MAX[Directorships - E(Directorships), 0]$	0.008	0.00	0.004	0.03
β_2	$MAX[Directorships - E(Directorships), 0]$ $\times$ Agency proxy	-0.015	0.00	-0.013	0.00
β_3	$MIN[Directorships - E(Directorships), 0]$	0.004	0.19	0.008	0.17
β_4	$MIN[Directorships - E(Directorships), 0]$ $\times$ Agency proxy	-0.017	0.01	-0.021	0.06
	Agency proxy	-0.014	0.02	-0.011	0.06
	Additional Variables				
	Age < 62 dummy	-0.002	0.73	0.000	0.93
	CEO	-0.001	0.87	-0.003	0.51
	Interlock dummy	-0.005	0.41	-0.005	0.47
	Financial sender dummy	-0.004	0.35	-0.006	0.25
	Financial receiver dummy	0.008	0.05	0.009	0.04
	Same two-digit SIC dummy	0.008	0.08	0.009	0.07
	Sender log sales	0.002	0.15	0.002	0.30
	Replacement dummy	0.002	0.61	0.001	0.72
	Sender prior industry-adjusted stock return	-0.006	0.09	-0.010	0.05
	Receiver prior industry-adjusted stock return	0.000	0.87	-0.001	0.85
	Industry-adjusted MB sender	0.000	0.93	0.001	0.54
	Industry-adjusted MB receiver	0.006	0.08	0.005	0.04
	Board meeting dummy	0.002	0.63	-0.001	0.82
	Relative size dummy	0.001	0.88	0.000	0.87
	CEO nominating in receiver	0.001	0.82	0.000	0.91
	Constant	-0.026	0.09	-0.016	0.28
	Adjusted R^2	0.14		0.15	
	p -values of F -tests:				
	$\beta_1 + \beta_2 = 0$		0.05		0.00
	$\beta_3 + \beta_4 = 0$		0.03		0.03

expected number of outside directorships, we form two new variables. First, we create a variable, $\text{MAX}[\text{Directorships} - \text{E}(\text{Directorships}), 0]$, that will be positive if the individual already holds more than the expected number of directorships and 0 otherwise. The second variable, $\text{MIN}[\text{Directorships} - \text{E}(\text{Directorships}), 0]$, will be negative if the executive holds less than the expected number of directorships and 0 otherwise. We estimate the following regression:

$$\begin{aligned} \text{CAR} = & \alpha + \beta_1 \times \text{MAX}[\text{Directorships} - \text{E}(\text{Directorships}), 0] \\ & + \beta_2 \times (\text{MAX}[\text{Directorships} - \text{E}(\text{Directorships}), 0] \times \text{Agency proxy}) \\ & + \beta_3 \times \text{MIN}[\text{Directorships} - \text{E}(\text{Directorships}), 0] \\ & + \beta_4 \times (\text{MIN}[\text{Directorships} - \text{E}(\text{Directorships}), 0] \times \text{Agency proxy}) \\ & + \gamma \times \text{Agency proxy} + \lambda \times X + \varepsilon. \end{aligned} \quad (2)$$

Using nominee ownership in the sender firm as a proxy for potential agency problems, the first regression in Table VIII reveals a significantly positive β_1 and a significantly negative β_2 . The positive coefficient indicates that executives in firms with fewer potential agency problems can benefit shareholders when accepting additional outside directorships beyond the market's expectation. This is consistent with enhanced sender-firm value from signaling, learning, or networking. On the other hand, the negative coefficient on the interaction variable and the significance of the sum of $\beta_1 + \beta_2$ indicate that executives in firms classified as having greater agency problems hurt shareholders when accepting more than the expected number of outside directorships.

The coefficient on β_3 is insignificant. In firms with fewer agency problems, shareholders on average are unaffected when executives holding less than the expected number of directorships accept additional board seats. To observe the net reaction of shareholders when an individual from a firm with higher agency problems holds one directorship less than expected, we perform the following calculation: $[(-\beta_3) + (-\beta_4) + \gamma]$.²⁵ Using the estimates from the first (second) regression, we obtain an insignificant shareholder reaction of -0.01% (0.2%). We conclude that shareholders appear to anticipate that executives will accept outside directorships up to a certain threshold. Once the executive moves beyond the expected number of directorships, however, shareholder reaction is negative and significant in firms with greater potential agency problems, and positive otherwise. For our earlier tests, this implies that our conclusions from the coefficient estimates on the interaction term with the agency proxies are potentially weakened by ignoring the expectations of shareholders. However, given that the coefficient estimates on β_2 (-0.015) and β_4 (-0.017) are almost identical, the impact should be minimal. In other words, the marginal effect of an additional directorship in events classified as having higher agency problems is only 0.002 lower if the executive moves toward rather than beyond the expected number of directorships.

²⁵ We have to multiply the β -coefficients by -1 because the variables are negative or 0.

We acknowledge the limitations of the two-stage analysis. To the extent that the first-stage model of the number of directorships is incorrectly specified, the predicted or expected number of directorships used in the second-stage is measured with error, reducing the precision and potentially biasing our second-stage tests. Thus, the two-stage results should be interpreted with caution, and they are reported primarily for robustness.

E. A Diversified Shareholder's Point of View

Our tests thus far have focused on the sender firm's shareholders. These shareholders, acting through the board of directors, can restrict executives from accepting directorships that would seem to draw attention away from the sender firm. Prior research has shown, however, that outside directors can benefit the receiver firm's shareholders (see e.g., Baysinger and Butler (1985), Weisbach (1988), Rosenstein and Wyatt (1990), Byrd and Hickman (1992), Shivdasani (1993), Brickley et al. (1994), Cotter et al. (1997)). In order to understand the complete effect of executives accepting outside directorships, we examine the impact of the additional directorship on all firms that compete for the time and effort of the individual directors (the receiver firm, the sender firm, and all other public firms for which the executive serves on the board). On the one hand, a diversified shareholder might lose value in the sender firm but gain from the enhanced value in the receiver firm. On the other hand, announcement returns could be positively correlated across sender and receiver firms, especially with respect to busier executives who sit on a higher number of boards.

We first investigate the individual announcement returns for sender and receiver firms. Of the 347 events for which we have sender and receiver CARs, 111 (32%) are both negative and 68 (19%) are both positive. The remaining 49% have either a positive sender or receiver CAR, but not both. This suggests that some diversification might be possible.

We test three different regression specifications, each with a different dependent variable. First, we estimate a regression with only the receiver firm CAR as the dependent variable. Second, we estimate the same regression with CARs from the "other firms," that is, those firms for which the individual already sits on the board prior to the new appointment. Finally, we form a market-value-weighted portfolio of CARs from the sender firm, the receiver firm, and the other firms for which the executive sits on the board. We proxy for agency problems in the sender firm with the same two measures used in the prior tables, and we include the full set of additional variables discussed earlier in addition to a dummy variable equal to 1 if the receiver firm's board does not have a majority of independent directors.

E.1. Receiver Firms

As reported in Models 1 and 4 of Table IX, receiver firm announcement returns are not related to the number of outside directorships of the director

Table IX
Number of Directorships and Announcement Returns for Receiver, Other, and All Firms

Coefficients of WLS regressions in which the dependent variables are cumulative abnormal returns in the event window $[-1, 1]$ for (1) the receiver firms; (2) "other" firms individually, that is, the CAR of the publicly traded firms where the nominee is already a board member; (3) a portfolio of all firms where the executive is involved. For Models 1, 2, 4, and 5, each firm is a separate observation and the weights of the regressions correspond to the inverse of the variance of the CAR. Models 3 and 6 are OLS regressions where the dependent variable is the CAR in the event window $[-1, 1]$ for the sender, receiver and other firms (all firms), and the CAR is the value-weighted sum per event. If an event does not have a CAR for an "other" firm, then the dependent variable is just the sum of the CARs for the firms with available data. The variable *Non-majority independent receiver* is a dummy variable equal to 1 if the receiver firm's board does not have a majority of independent outside directors before the nomination. Definitions for other variables are listed in the heading of Table III. All accounting data is for the fiscal year-end before the announcement, and *p*-values appear below each estimate in parentheses. The *p*-value of an *F*-test of the sum of the *Directorships* coefficient and the interaction variable *Directorships* $\times$ *Agency proxy* is reported at the end of the table.

Coefficient	Variable	Agency proxy = 1 if:					
		Nominee Ownership in Sender $\leq$ Sample Median			Independent Outside Directors $\leq 50\%$ of Sender Board		
		(1)	(2)	(3)	(4)	(5)	(6)
		Receiver Firms	Other Firms Individually	All Firms Portfolio	Receiver Firms	Other Firms Individually	All Firms Portfolio
β_1	<i>Directorships</i>	0.001 (0.53)	0.004 (0.08)	0.008 (0.02)	0.003 (0.15)	0.004 (0.09)	0.007 (0.03)
β_2	<i>Directorships</i> $\times$ <i>Agency proxy</i>	-0.006 (0.02)	-0.002 (0.31)	-0.140 (0.01)	-0.009 (0.01)	-0.002 (0.28)	-0.013 (0.01)
	<i>Agency proxy</i>	-0.002 (0.74)	-0.002 (0.84)	-0.009 (0.02)	-0.005 (0.09)	-0.002 (0.67)	-0.007 (0.05)
Additional Variables							
	<i>Age</i> $<$ 62 dummy	0.008 (0.08)	-0.002 (0.88)	0.010 (0.09)	0.009 (0.05)	-0.001 (0.89)	0.006 (0.32)
	CEO	0.009 (0.04)	0.001 (0.75)	-0.003 (0.73)	0.007 (0.07)	0.001 (0.79)	-0.003 (0.61)
	<i>Interlock dummy</i>	-0.007 (0.35)	-0.008 (0.48)	-0.006 (0.74)	-0.006 (0.40)	-0.006 (0.57)	-0.003 (0.76)
	<i>Financial sender dummy</i>	0.007 (0.36)	-0.004 (0.51)	0.005 (0.63)	0.009 (0.14)	-0.005 (0.47)	0.008 (0.48)
	<i>Financial receiver dummy</i>	-0.005 (0.21)	0.015 (0.04)	0.002 (0.72)	-0.007 (0.19)	0.012 (0.05)	0.002 (0.58)

(continued)

Table IX—Continued

Coefficient	Variable	Agency proxy = 1 if:					
		Nominee Ownership in Sender $\leq$ Sample Median			Independent Outside Directors $\leq 50\%$ of Sender Board		
		(1)	(2)	(3)	(4)	(5)	(6)
		Receiver Firms	Other Firms Individually	All Firms Portfolio	Receiver Firms	Other Firms Individually	All Firms Portfolio
	<i>Same two-digit SIC dummy</i>	0.012 (0.05)	-0.006 (0.41)	0.014 (0.05)	0.013 (0.05)	-0.004 (0.46)	0.011 (0.06)
	<i>Sender log sales</i>	0.001 (0.35)	-0.002 (0.41)	0.000 (0.86)	0.001 (0.54)	-0.002 (0.32)	0.000 (0.88)
	<i>Replacement dummy</i>	0.003 (0.40)	0.003 (0.62)	0.004 (0.69)	-0.001 (0.76)	0.002 (0.72)	0.004 (0.69)
	<i>Sender prior industry-adjusted stock return</i>	0.005 (0.16)	-0.010 (0.05)	-0.008 (0.23)	0.005 (0.12)	-0.007 (0.14)	-0.003 (0.71)
	<i>Receiver prior industry-adjusted stock return</i>	-0.009 (0.05)	-0.003 (0.62)	-0.004 (0.49)	-0.006 (0.08)	-0.003 (0.55)	-0.004 (0.55)
	<i>Industry-adjusted MB sender</i>	-0.004 (0.07)	-0.004 (0.05)	-0.006 (0.40)	-0.004 (0.07)	-0.004 (0.05)	-0.007 (0.27)
	<i>Industry-adjusted MB receiver</i>	-0.001 (0.75)	0.004 (0.05)	0.010 (0.02)	-0.001 (0.85)	0.004 (0.04)	0.007 (0.03)
	<i>Board meeting dummy</i>	0.000 (0.99)	0.000 (0.94)	-0.000 (0.98)	-0.001 (0.77)	-0.000 (0.99)	-0.003 (0.51)
	<i>Relative size dummy</i>	0.005 (0.09)	-0.001 (0.93)	0.000 (0.94)	0.007 (0.08)	-0.000 (0.87)	0.005 (0.39)
	<i>CEO is nominating in receiver</i>	-0.010 (0.04)	-0.003 (0.59)	-0.005 (0.40)	-0.009 (0.05)	-0.001 (0.93)	-0.004 (0.54)
	<i>Non-majority independent receiver</i>	0.008 (0.04)	0.004 (0.64)	0.006 (0.09)	0.008 (0.05)	0.004 (0.55)	0.008 (0.05)
	Constant	-0.032 (0.03)	0.019 (0.49)	-0.025 (0.40)	-0.025 (0.08)	0.018 (0.49)	-0.020 (0.50)
	Adjusted R^2	0.14 347	0.11 298	0.13 347	0.22 347	0.12 298	0.15 347
	Observations						
	p -values of F -tests:						
	$\beta_1 + \beta_2 = 0$	0.05	0.51	0.04	0.07	0.76	0.04

nominee unless the sender firm is classified as one with greater potential agency problems. Similar to our results for sender-firm returns, we find that the announcement returns for receiver firms are negatively related to the number of directorships held by the nominee when the nominee comes from a firm with higher potential agency problems. These findings suggest that it should be in the interest of a diversified shareholder to limit the number of outside directorships for executives from firms with agency problems. Receiver firms could reject such nominees; however, agency problems in the receiver firm also play an important role. We find that CEO involvement in the director nomination process, even for independent appointments, reduces the announcement return for the receiver firms, which is consistent with Shivdasani and Yermack (1999).

We also find evidence that the addition of the nominee enhances receiver-firm value when the nominee is a CEO, consistent with Fich (2005), or under the age of 62. In addition, receiver firms with lower prior stock performance or without a majority of independent outside directors also benefit from the announcement of an outside director nomination, which is consistent with the findings of Hermalin and Weisbach (1988) and Rosenstein and Wyatt (1990). Receiver-firm announcement returns are also higher when the nominee's sender firm is a smaller firm than the receiver firm and when the two firms operate in the same two-digit SIC. The latter result implies that networking and learning benefits can benefit both the sender and receiver firms, and that the positive coefficient on the *same two-digit SIC dummy* in the sender-firm regressions is not evidence of expropriation from the receiver firm. While we conclude that similar-industry appointments are beneficial to shareholders of both firms, we cannot determine whether the gains are generated through synergies between the two firms or at the expense of a third party such as customers or suppliers.

E.2. Other Firms

We also examine the announcement returns for the "other firms", that is other firms for which the executive is already a board member. There are 298 such firms. Although these other firms are not directly involved in the event, one of their directors has been nominated to the board of an additional firm which has the potential to either benefit the firm through additional learning or networking opportunities or to hurt the firm through a reduction in time available to commit to monitoring management. The average CAR for the other firms is 0.46%, significant at the 10% level (not tabulated). In Models 2 and 5 of Table IX (labeled "Other Firms Individually"), we present the specification using the 298 other firm CARs as a dependent variable. The results indicate that other firms benefit from the announcement if the board member holds more directorships and if the new directorship is in a financial firm or a firm with a higher market-to-book ratio. In contrast to the previous results, agency problems in the sender firm are not related to announcement returns, but the industry-adjusted market-to-book ratio and prior industry-adjusted stock

return for the sender firms are both negatively related to the announcement return of the other firms.²⁶

E.3. All Firms

In Models 3 and 6 of Table IX, we report OLS regression results where the dependent variable is the market-value-weighted sum of the sender, receiver, and other firm CARs by event.²⁷ We limit our sample to the events that have sender and receiver CARs available but we do not exclude events without other firm CARs. We find a positive relation between the number of directorships and overall returns for sender firms with fewer potential agency problems, and a negative relation between the number of directorships and returns for firms with greater potential agency problems. In addition, we find that the growth opportunities for the receiver firm are positively related to shareholder returns, and that overall returns are increased when the sender and receiver firms operate in the same two-digit SIC and when the receiver firm does not have a majority of independent directors. These results are consistent with overall wealth benefits for a diversified shareholder when the executive comes from a firm with fewer agency problems and the appointment suggests increased monitoring or networking benefits for the receiver firm. On the other hand, we find a significant loss in value for a diversified shareholder when the director nominee comes from a sender firm with greater agency problems and the director is already time constrained due to other directorships. Overall, the results in Table IX are consistent with executives accepting additional directorships as a form of perquisite consumption that shareholders are unable to diversify away when the executives have weaker ownership incentives and are subject to less effective board monitoring.

III. Conclusion

Our study contributes to the growing literature of corporate governance by investigating events in which an executive of a firm is nominated for an outside directorship in a publicly traded firm. We find evidence that investors react negatively when executives who hold prior directorships accept additional outside director appointments and the executive's primary employer has greater potential agency problems. If the executive is the CEO or comes from a firm with higher relative growth opportunities, the relation between number of directorships and sender-firm announcement returns is even more negative. We contend that our results are consistent with a higher marginal value of time for such executives and that the acceptance of additional directorships is a form of perquisite consumption.

²⁶ The results of these regressions must be interpreted with caution since the observations are not independent in the sense that one nomination event can be associated with multiple "other" firm observations depending on the number of outside directorships the executive already holds.

²⁷ Since we just form the value-weighted sum of the sender, receiver, and other firm CARs, we cannot perform WLS estimates for these regressions.

When fewer agency problems exist, however, we find that additional outside directorships are related to higher sender-firm returns. We also find that sender-firm announcement returns are greater when the executive accepts a nomination to the board of a financial firm, the board of a company operating in the same two-digit SIC, or the board of a firm with greater relative growth opportunities. Our results suggest that outside directorships for executives can enhance firm value, possibly through learning or networking opportunities or through signaling of managerial quality, and that structural governance measures such as an independent board of directors and increased managerial ownership can have a discernible effect on firm value. These insights have important implications for firms employing executives who are asked to be nominees for an outside board and for possible policy recommendations that restrict the number of outside directorships. If agency problems increase the propensity of executives to become “too busy” by accepting outside directorships that are not in the interest of sender-firm shareholders, then limiting the number of outside directorships addresses the symptoms but not the cause. More effective monitoring and improved incentives might address the underlying problem rather than unilaterally constraining executives from accepting appointments to other boards.

Appendix: Two-Stage Regression

The sample for the first-stage regression is based on the sample of firms covered in the IRRC database and Compact Disclosure. We start with the 1996 Compact Disclosure data and count the number of outside directorships per person based upon last name, first name, and age (when available). When age is not available, this procedure does not necessarily result in a unique identification of an individual. For example, a few people held more than 10 directorships according to this procedure. We investigate those events and find that common names such as Smith are the reason for some of the outliers. We resolve the identification issues by reading the proxy statements. We supplement this information with data from the IRRC database, which gives us information on the individual's position in the company. We impose additional restrictions such that the sample corresponds very closely to our main sample of 349 events. First, we only keep the observations for which the individual was an executive because we want to predict the number of directorships for executive officers.²⁸ Second, we require Compustat data to be available for the main employer firm (sender firm), which eliminates privately held firms. Our final sample consists of 2,315 observations, where the variable *directorships* ranges from 0 to 8 and averages 0.43.²⁹ We investigate 20 randomly chosen individuals and find no instance in which the main employer's proxy statement listed a different set of outside directorships for the individual. However, as mentioned in the text,

²⁸ This includes CEO, CFO, COO, VP, SVP, and executives of subsidiaries.

²⁹ This corresponds closely to Ferris and Jagannathan (2001) who find an average number of directorships of 1.44 (including the sender-firm directorship).

the proxy statement does sometimes contain additional directorships of non-publicly traded companies.

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