

Why do firms appoint CEOs as outside directors?

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Abstract

We examine the determinants of appointments of outside CEOs to boards and how these appointments impact the appointing companies. We find that CEOs are most likely to join boards of large established firms that are geographically close, pursue similar financial and investment policies, and have comparable governance mechanisms to their own firms. It is also more likely that CEOs join firms with low insider ownership and firms with boards that already have other CEO directors. Except for the case of board interlocks, there is no evidence supporting the view that CEO directors have any impact on the appointing firm during their tenure, either positively or negatively. Appointments of CEO directors do not have a significant impact on the appointing firm's operating performance, its decision-making, the compensation of its CEO, or on the monitoring of management by the board. However, operating performance drops significantly for CEO director appointments when the CEO of the appointing firm already sits on the board of the appointee's firm.

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In a large number of countries, laws or regulations require a fraction of the corporate board to be composed of independent directors. The presumption is that the interests of independent directors are better aligned with those of minority shareholders than the interests of inside directors. In general, CEOs of other corporations are independent directors. Because of their current day job, these CEOs have an unusual amount of authority and experience and could thus be ideal for monitoring or advising the incumbent CEO. Firms may also seek to appoint an outside CEO to their board to buy into the CEO's reputation and to certify to the market that the firm is doing well. For example, Philip Purcell, the former CEO of Morgan Stanley, stated that "Our board is, by design, one of the most independent on Wall Street."¹ The board was mostly composed of CEOs and former CEOs. However, the CEOs and former CEOs on that board were accused by some observers of being mostly allies and protectors of Purcell, raising the concern that outside CEO directors might help entrench management rather than advance the interests of shareholders.²

In this paper, we investigate in detail the role of outside board members who are CEOs of U.S. public companies. Using data from 1988 to 2005 on more than 10,000 firms, we try to answer two questions. First, what determines whether an outside CEO or another person is appointed director? Second, do outside directors who are CEOs make minority shareholders better off, have no distinct influence, or make the life of the appointing firm's CEO easier?

Surprisingly, we find that the typical firm in our sample does not have an outside CEO on its board. There is both a supply and a demand of CEOs as outside directors. We find that demand and supply are more likely to match for firms that are established. Younger firms, smaller firms, and non-dividend paying firms are less likely to appoint a CEO director to their board. CEO directors are also more likely to join firms which already have other CEO directors on the board.

¹ In a letter to staff, as reported by Wells, Wighton, and Larsen (2005).

² In fact, Laura D'Andrea Tyson, independent director and Dean of London Business School, was rebuked by fellow director Charles Knight, former CEO of Emerson Electric, for her criticisms of Mr. Purcell (see Davis and Smith (2005)).

These findings are consistent with a prestige factor, indicating that CEO directors are more likely to accept additional directorships if such positions provide them with benefits such as added prestige or networking opportunities.

We also find that the firms of the appointee CEOs tend to be similar in their financial and investment policies and governance structures to the firms that appoint them, despite the fact that they typically are in different industries. Further, the appointee's firm tends to be located near the appointing firm. One could argue that similarities between appointee firms and appointing firms suggest that the appointing firms find outside CEOs with similar styles who will not rock the boat and proximity suggests that social connections may be important determinants of the appointment. However, another perspective on these results is that the appointing firm chooses to appoint a CEO who understands the issues faced by the appointing firm, so that the CEO director can be more useful because he has expertise that is directly relevant. Yet another perspective is that CEO directors, who are busy with their own jobs, are only willing to accept directorships at firms which they can easily understand.

We use six different outcome variables known to affect shareholder wealth to evaluate whether firms appoint outside CEOs as directors because they seek monitors (monitoring hypothesis), because they need advice (expert hypothesis), because they want to benefit from the reputation of the outside CEO (certification hypothesis), or because their CEOs seek allies on their board (buddy hypothesis). These hypotheses are not only of academic interest. For instance, an article attempting to explain the impact on Goldman Sachs of the appointment of Lakshmi Mittal to its board has quotes from interviewed individuals that make predictions corresponding to each one of these hypotheses.³

³ "A person familiar with the circumstances surrounding Mr. Mittal's appointment says one of the steel tycoon's main attractions was that he is the type to challenge other board members." "(...) industrialists typically have broad global experience, which may be valuable to a bank in identifying strategies to penetrate new markets." "You can see why Goldman hired him – he is an entrepreneurial and high-profile figure – but my gut feel is that he does not add particularly much." "The chief executive of an industrial company can provide valuable support to a banking boss by empathizing with their experience as the chief

First, we evaluate whether there is evidence that appointing a CEO director is associated with a change in firm performance. The monitoring and expert hypothesis would both predict an increase in operating performance. The buddy hypothesis, however, predicts a drop in performance either because having powerful allies is likely to be most useful for the CEO when the firm is expected to perform poorly and therefore the appointment of such allies would be associated with a worsening of performance or because having powerful allies makes it easier for the CEO to pursue actions that are not in shareholders' interests. The certification hypothesis would imply no change in operating performance since firms appoint CEO directors only to buy into their reputation. Using a difference-in-differences approach to mitigate concerns about endogeneity, we find little evidence of any change in operating performance, even after having controlled for industry, size, and prior performance, except when the appointing CEO already sits on the board of the appointee firm, in which case performance falls.

Next, we investigate whether firms with outside CEOs on their boards make better decisions. In one test, we evaluate whether CEO turnover is more responsive to firm performance when CEO directors are present. We find little evidence of improved or worse CEO turnover decisions. In another test, we investigate whether firms with CEO directors make better acquisitions, where the quality of an acquisition is measured by the firm's abnormal return at the time of the acquisition announcement. We find that the abnormal return is not related to the presence of CEO directors when acquisition characteristics are controlled for.

Fourth, we evaluate whether CEOs are paid more or have poorer incentives in firms that have CEO directors. In contrast to Faleye (2007), we find no evidence that having CEOs on the board of directors distorts incentives. We find that, for our sample, results crucially depend on whether we allow for firm fixed effects.

executive of a large company. (...) As a former client, Mr. Mittal is absolutely not independent, says another headhunter (...)." (see Hughes (2008)).

Fifth, if the CEO manages to appoint buddies to his board, we would expect these buddies to leave the board when the CEO steps down. We investigate whether the departure of the CEO in the appointing firm is more likely to lead to the departure of CEO directors. We find that this is not the case.

Sixth, we investigate whether the probability that a firm will be taken over is related to the probability that a CEO director is present. If the CEO director helps entrench the incumbent CEO, we would expect the CEO director to have an adverse impact on the probability that the firm is taken over. If the main benefit of the appointment is a certification effect, we would expect a decrease in the probability that the appointing firm will be taken over since CEO directors increase the market's perception of the appointing firm's management. Finally, there is no clear prediction if the CEO director monitors or advises. Better advice and monitoring would reduce the probability that a takeover increases firm value, but a firm with a less entrenched board and management would be more likely to be sold when shareholders benefit. We find that firms with larger boards and more inside directors are less likely to be taken over, but the presence of a CEO director has no impact on the probability that a firm will be taken over.

Recent literature has also focused on behavioral influences of executives. Bertrand and Schoar (2003) show that CEOs have their own styles with regard to financial, investment, and operational policies. It is therefore possible that CEO directors do not affect the traditional outcome variables we focus on, but that they nevertheless have an impact on appointing firms by pushing for corporate policies to become more similar to those of their own firms after their appointment. We investigate whether there is a convergence of corporate policies in the appointing and appointee firm.⁴ We find very limited evidence to that effect.

⁴ Richardson, Tuna, and Wysocki (2003) estimate director fixed effects in a panel dataset and find that firms who share common directors pursue similar corporate policies. Their approach is different from ours in that they only study commonality in corporate policies and focus on directors with multiple appointments. Chen (2007) also finds that appointing firm and appointee firm have similar investment and financial policies.

To summarize our evidence, CEOs appointed to boards do not look like strangers to the appointing firm and to its CEO. The appointee and appointing firms have many similarities and are close in geographic distance. These similarities and the proximity could be the result of an optimal intersection of supply and demand in which it is not too costly for the CEO director to serve on a board and in which the firm receives the advising and monitoring services from the outside CEO it seeks. Yet, much of our evidence fails to find an impact of CEO directors on outcomes that are typically decided upon by board members. Our results are more consistent with the notion that appointing outside CEOs certifies the quality of a firm to the market, but that, once appointed, these CEOs do not impact the firm much.

Our paper contributes to the literature on determinants of board appointments. Fich (2005) examines the first-time director appointments to the boards of Fortune 1000 firms from 1997 to 1999 and finds that CEO directors are more likely to be appointed by firms with more institutional ownership and higher growth opportunities. Booth and Deli (1996) find that CEOs of firms with growth opportunities hold fewer outside directorships than CEOs of firms consisting primarily of assets-in-place. Also, CEOs hold more outside directorships as they transfer decision rights to their eventual successors. Brickley, Linck, and Coles (1999) show that director appointments of former CEOs to other firms are more likely after good accounting performance at the appointee's firm. Fich and Shivdasani (2007) show that outside directors experience a significant decline in board seats if they are directors in a firm facing shareholder class action lawsuits. Linck, Netter, and Yang (2008b) study supply and demand of directors pre- and post-Sarbanes-Oxley Act (SOX) and find that post-SOX, fewer current, but more former executives are outside directors.

Our paper also contributes to a large literature relating characteristics of the board, such as board size and fraction of outside directors, to firm performance, and corporate decisions.⁵ Recent

⁵ E.g., Weisbach (1988), Yermack (1996), and Huson, Malatesta, and Parrino (2004) [CEO turnover], Hermalin and Weisbach (1991), Bhagat and Black (2001), and Perry and Shivdasani (2005) [Accounting

papers have emphasized the importance of going beyond broad board characteristics and have analyzed specific types of directors and their roles for firm outcomes.^{6, 7} Similarly, we focus on arguably the most important subset of independent directors.

Other researchers have studied the stock-price reaction to announcements of director appointments, with mixed results. Rosenstein and Wyatt (1990) find a positive stock-price reaction to the announcement of an outside director joining the corporate board. Perry and Peyer (2005), using a different sample, find negative announcement returns for outside director appointments. Fich (2005) finds that announcement returns are significantly positive and higher when the appointee is a CEO of a different firm. He also investigates the stock-price reaction to the announcement of gray CEO directors and finds an insignificant stock-price reaction to such announcement which is significantly higher than the stock-price reaction to the appointment of other outside gray directors. In his definition, one type of gray appointments of CEO directors would correspond to the case where a CEO is appointed from a firm that has the appointing firm CEO on its board. Most recently, Masulis and Mobbs (2008) find a positive stock-price reaction to the announcement that an inside board member has been appointed to an additional outside board.

The paper proceeds as follows. In Section 1, we examine in more details the economics of board memberships by CEOs. In Section 2, we describe how we collect our sample. In Section 3, we investigate the characteristics of the appointing firm and how these characteristics affect the probability that an outside CEO is appointed to the board. In Section 4, we investigate performance changes, managerial turnover, acquisition decisions, CEO compensation, takeover

performance], Byrd and Hickman (1992), Cotter, Shivdasani, and Zenner (1997), Harford (2003), and Moeller (2005) [Mergers and acquisitions].

⁶ E.g., Agrawal and Knoeber (2001), Booth and Deli (1999), Güner, Malmendier, and Tate (2008), and Masulis and Mobbs (2008).

⁷ Some papers have also examined how interlocking directorships affect compensation. For example, Hallock (1997) examines interlocked boards and finds that compensation is higher for CEOs who lead interlocked firms. Graham and Wu (2007) provide additional corroborative evidence on the effects of interlocked compensation committees using a change in the tax code which prohibits tax deductibility for non-performance compensation in excess of \$1 million.

probability, and director turnover at the appointing firm. In Section 5, we analyze how policies of the appointing firm compare to the policies of the appointee's firm and whether these policies become more similar after the appointment. We conclude in Section 6.

1 The economics of CEO board appointments

In this section, we consider the factors that influence the demand for and the supply of CEO directors. We would like to understand why CEOs belong to some boards and not to others. If it is truly the case that CEOs have unique expertise and independence, we would expect that all firms benefit from having outside CEOs on their board. Yet, in our sample, the median number of outside CEOs on a board is zero.

1.1 Supply of CEO directors

Why are there so few CEOs on boards? Board memberships are time consuming and the opportunity cost of the time of CEOs is high. For example, Lorsch and Maciver (1989) report that lack of time is the single most cited reason for declining a board position, and Lipton and Lorsch (1992) suggest that individual directors devote at least 100 hours a year to fulfill their duties as directors. We would expect CEOs of well-established firms that have delegated more of their functions to younger executives to be more willing to serve on boards (e.g, Booth and Deli (1996) and Vancil (1987)). Consequently, CEOs on boards are likely to be working at older and more mature firms. Further, CEOs that have poor incentives at their firms to maximize shareholder wealth are also likely to be more willing to serve on boards (see Perry and Peyer (2005)).

There are good reasons why it would be especially costly for CEO directors to be associated with firms that have poor performance compared to other types of directors. Fich and Shivdasani (2007) show that directors' reputation suffers when they sit on the board of firms involved in a corporate scandal. However, the reputation of a CEO does not affect only his success on the labor

market but it also directly affects his ability to perform his job. We would expect his authority within the firm to suffer if he is associated with failure, which would make it harder for him to lead his firm. Further, being associated with failure in a director position should adversely affect his job opportunities (e.g., Harford (2003) and Yermack (2004)). Therefore, reputational concerns imply that CEOs would be leery to join boards of firms that they expect to perform poorly or to have significant risks of a scandal.

Sitting on boards of reputable firms may bring benefits to the CEO director. CEOs may find it worthwhile to be on a board that provides them with contacts and/or information that could help them in their current position. For instance, the board of a financial institution could provide them with valuable knowledge in dealing with financial institutions in general and in accessing the capital markets (Perry and Peyer (2005)). CEOs may also seek appointments to prestigious boards, i.e., boards of firms of similar or larger size or firms that have a reputation for having a “strong” board, in order to enhance their own status and reputation.

1.2 Demand for CEO directors

Hermalin and Weisbach (1988) emphasize how CEO transitions affect the composition of the board. Firms with younger, inexperienced CEOs might benefit particularly from an outside CEO director who could mentor the current CEO. Shareholder pressure may force a firm to assemble a more “independent” board of directors with more senior outside directors when it has a young CEO or when it has performed poorly. A similar argument applies to the situation of smaller and younger firms with more growth options, because for them asymmetric information may be particularly large. In such situations, firms may also seek prestigious directors to provide evidence that they are on the right path. A CEO would be unlikely to join the board of such a firm if he has doubts about its plans or its future, so that the appointing firm would benefit from the certification conferred by acceptance of the appointment. Leland and Pyle (1977) argue that increased stock ownership by insiders can help signal to the market the quality of the firm in an

IPO. Firms with low insider ownership may need additional certification to help signal their prospects to the outside markets. Finally, firms which suffer from information asymmetry may also benefit more from the certification effect.

Hermalin and Weisbach (1998) provide a theoretical model in which board independence depends on a bargaining game between the board and the CEO. Powerful CEOs are able to influence board independence. Consistent with this, Shivdasani and Yermack (1999) show that firms where CEOs are involved in the nomination process are less likely to appoint outside directors and more likely to appoint gray directors with conflicts of interests. Under the buddy hypothesis, we would therefore expect that CEOs with more bargaining power relative to the board would be more likely to appoint outside CEOs who are sympathetic to them rather than aggressively monitor them. In addition, appointing an established CEO as outside director would avoid shareholder criticism about a weak board, and could even help enhance the CEO's power relative to the board. For example, existing directors are also more likely to defer to a CEO director.

The board of directors is expected to monitor the incumbent CEO. Outside directors, in contrast to inside directors, are often argued to be better monitors of incumbent CEOs and this is also the basis of recent regulatory corporate governance reforms. Established CEO directors are likely to have a lot of influence in the boardroom and, because of their authority, could be the optimal monitors. They would know better what to ask for than the typical outside director. The benefits of the increased monitoring would be greatest for firms where managerial incentives are not well-aligned with the interests of shareholders and where information asymmetry makes monitoring by outside governance mechanisms difficult. However, it is unclear how much time CEO directors can devote to monitoring the CEO at the appointing firm since they have full-time job commitments at their own firm.

Adams and Ferreira (2007) emphasize the importance of the advisory role of the board of directors. Firms with young and inexperienced CEOs would benefit most from CEO directors

who can help mentor and guide the incumbent CEOs. Similarly, small, young firms with more growth options are likely to benefit most from the expert advice of CEO directors who can help them exploit their growth potential and expand.

1.3 Intersection of supply of and demand for CEO directors

It follows from the above considerations that whereas young growing firms might find the experience and expertise of CEOs on their board to be highly valuable, CEOs are unlikely to be willing to sit on the boards of such firms. The time of CEOs has to be paid for so that they are likely to be too expensive for smaller firms. Furthermore, the potential loss of reputation of sitting on the board of a small, young firm with little track record may far outweigh the benefits that such directorships can bring. We therefore expect, in equilibrium, to see CEOs on boards of large, well-established firms.

2 Data

We use five different databases to construct our sample. The director appointments and the director data come from Compact Disclosure. Compact Disclosure also provides us with information on firm headquarters, director and officer stock ownership, identity of CEOs and directors, and CEO cash compensation data. We further obtain accounting data from Compustat, stock and option compensation data from Execucomp, institutional ownership data from the Thomson 13F database, and data on anti-takeover provisions from the Investor Responsibility Research Center (IRRC). Definitions of all variables are in Appendix A.

We construct the initial sample of new outside CEO director appointments from data provided by Compact Disclosure. Compact Disclosure provides information on publicly listed U.S. firms that have assets in excess of \$5 million. We download the list of officers and directors from all monthly Compact Disclosure CDs available to us, and update this list whenever the

proxy date or date of the 10-K in Compact Disclosure changes from one year to the next. We use CDs from January 1988 to May 2006. After matching to Compustat, the matched Compact Disclosure-Compustat database contains 87,000 firm-year observations from 12,788 firms with board structure information. The sample is from 1988 to 2005. This matched Compact Disclosure-Compustat database forms the core of our sample. Our sample contains a much broader cross-section of firms than is typical in the director literature (with the exception of Linck, Netter, and Yang (2008a, b)).

Since we need to identify whether a director is also an executive of another firm, we further match executives and directors across firms by first name, middle name, last name, and year of birth. Because minor spelling mistakes are common in the Compact Disclosure CDs across firms, we standardize the names of executives and directors first within a firm and then across firms.

We define a new director appointment to take place when a director appears for the first time on the list of directors in a firm's proxy statement. Therefore, we cannot determine new appointments in the first year a firm appears in our sample. There are 77,124 new director appointments from 10,456 firms. We check whether the newly appointed director is currently a CEO of another firm covered in the Compact Disclosure universe, or whether he is a former CEO. The list of current and former CEOs is also obtained from the Compact Disclosure database.⁸ Compact Disclosure also provides the list of officers listed in the 10-K and we use this list to determine the inside directors. The remaining directors are classified as other outside directors. Of the 77,124 appointments, 8,666 (11%) are either current CEOs or former CEOs from within our sample.

We further employ the following filters. As our tests require firm data prior to and subsequent to the appointment, we restrict the sample to appointments between 1989 and 2002 and to appointing firms with board information for at least two more consecutive years after the

⁸ We are only able to determine former CEOs if they have been a CEO of a company covered by our database during the sample period. Therefore, we likely under-report the number of former CEOs during the early sample years.

appointment. We restrict our sample of appointing firms to public firms on CRSP and firms with data on book value of assets from Compustat in the fiscal years just prior to and subsequent to the appointment. We also delete observations in which the appointing firm and the appointee firm have a parent – spinoff relation as it is common for the CEO of the parent to be appointed to the spinoff’s board. Finally, we delete firms with more than five new director appointments per year, as they have likely suffered from a corporate control event. The final sample consists of 26,231 appointments from 5,400 firms. There are 1,731 appointed directors who are CEOs of other firms covered in the Compact Disclosure universe at the time of the appointment. Another 6,948 new appointments are employees of the appointing firm and the rest of the newly-appointed directors are neither insiders nor current CEOs. Fich (2005) finds that, on average, 4 members of a 12 member board of directors of Fortune 1,000 firms are CEOs, which is considerably larger than the number we report. Booth and Deli (1996) examine the 1990 proxy season for S&P 500 firms and find that on average 1.55 members of a 13 member board are CEOs of other firms.⁹ Ferris, Jagannathan, and Pritchard (2003) study a broader sample of firms and find that only 16% of directors hold more than one board seat and that multiple board seats are concentrated in directors of the largest firms. Differences in the size of firms may therefore explain the difference between our proportion of CEO director appointments and the number reported by Fich (2005).

Figure 1 shows the number of appointments per year and how these appointments are divided between inside directors, outside CEO directors, and other outside directors. Except for 1998, there is little variation in the number of appointments. There is some decrease in the number of CEO appointments in the last three years of the sample. The number of appointments of insiders is noticeably higher in 1998 and 1999.

⁹ We have double checked the quality of our data source by replicating the sample and summary statistics of Booth and Deli (1996). We find very similar results to Booth and Deli (1996) when we restrict our sample to the 1990 proxy season and the biggest 500 firms and compare the number of outside CEO directors and board size.

3 Determinants of outside CEO appointments

To investigate the determinants of outside CEO appointments, we first consider whether characteristics of the firms that appoint CEO directors differ from the characteristics of firms that appoint inside directors or outside directors that are not CEOs. We compare these firm characteristics in Table 1.

Firms appointing an outside CEO are larger, older, pay dividends, and have lower sales growth. Consequently, CEOs join established firms. There is some evidence that CEOs are more likely to join better performing firms, as proxied by ROA, Tobin's Q, and stock market returns. We also find that CEOs cluster on boards: CEO appointing firms already have more current CEOs sitting on their boards. Generally, the management of firms appointing CEO directors have weaker incentives to maximize shareholder wealth. In particular, firms appointing CEO directors have lower CEO and director and officer (D&O) ownership, although CEO dollar equity incentives, measured using the methodology outlined in Core and Guay (2002), are not different across appointing firms. We use the Gompers, Ishii, and Metrick (2003) G-index to measure the extent to which management is protected from the market for corporate control. The degree of management protection increases with the value of the index. We find that the index is significantly higher for firms that appoint CEO directors than for firms that make other appointments. Finally, the CEO of the appointing firm is older when the firm makes a CEO director appointment instead of a non-CEO outside director appointment.

CEO directors are older than inside directors, but of the same age as other outside directors at the time of appointment. CEO directors have more additional board seats than either inside or other outside directors. Strikingly, CEO directors come from firms that are quite similar to the appointing firm. The bottom panel of Table 1 shows that assets, market capitalization, and firm age are approximately equal for appointing and appointee firms. For example, 50% of the appointed CEO directors come from firms that are bigger than the appointing firm in terms of

book assets. As a comparison, in the last column of the last panel, we also examine the appointment of non-CEO executives working at firms covered in our database. The last column of the last panel shows that non-CEO executives who are appointed outside directors come from much larger and more established firms than the appointing firm. For example, 77% of the non-CEO executives are working at bigger firms, in terms of book assets, than the firms which appoint them as directors. These statistics suggest that prestige plays a considerable role for the appointment of a director. If a non-CEO is appointed director, he needs to come from a significantly larger organization to make up for the fact that he is not the top person in that organization (e.g., Mace (1986)).

Note that the median distance between the headquarters of the appointee and appointing firm is only 123 miles.¹⁰ The first quartile is 13 miles. The relative distance measure shows that this is not an effect of an unusual concentration of firms in large metropolitan areas.¹¹ The mean relative distance is 0.38, while the median is 0.12. CEOs appear to accept directorships if the cost of traveling is low. The low distance is also consistent with CEOs of the appointee firm and appointing firm belonging to the same social circles. However, there are few direct interlocking directorships in our sample of appointments. Table 1 shows that only 4% of the appointing firm CEOs are already sitting on the appointee's board prior to the appointment. Also, only 13% of the appointing firms and appointee firms operate in the same industry.

The firm characteristics comparisons in Table 1 provide an incomplete assessment of the determinants of CEO director appointments because many of these firm characteristics are highly correlated. For instance, firm size and insider ownership are negatively correlated and it could be

¹⁰ We use headquarter information provided by Compact Disclosure to obtain headquarter zip codes of both firms. We obtain latitude and longitude data from the U.S. Census Bureau's Gazetteer Place and Zip code Database, which we match to both headquarter locations. To formally gauge the distance between the headquarters of the appointing and appointee firms, we follow Coval and Moskowitz (1999).

¹¹ We calculate the average distance of the appointing firm to all other firms in our matched Compact Disclosure-Compustat sample and the relative distance is defined as the ratio of the distance between the appointing firm and the appointee firm to the average distance. Therefore, a ratio that is less than one implies that the appointing firm is closer to the appointee firm than to the average firm in the sample.

that the lower insider ownership of firms appointing CEO directors just reflects a difference in firm size. To assess more directly the statistical and economic significance of the role of specific firm characteristics in the appointment of CEO directors, it is therefore necessary to estimate regressions. We use a multinomial regression model where the dependent variable is equal to zero if an insider is appointed, equal to one if an outside CEO is appointed, and equal to two if a non-CEO outside director is appointed. The results are presented in Table 2. Though we do not report the results, we also estimated a probit regression where the dependent variable takes the value one when a CEO outside director is appointed and zero when a director of another type is appointed. The conclusions we draw from that probit model are similar to those we draw from the multinomial logit model we report.

The regression analysis confirms the results from the comparison of firm characteristics in Table 1. CEOs are appointed at established firms – firms that have more assets, pay dividends, and are older. These firms also invest more – they have more capital expenditures and R&D expenditures. Controlling for these firm characteristics, a CEO is more likely to be appointed to a firm that already has a high proportion of CEOs. The clustering of CEOs on boards is consistent with the view that CEOs seek prestigious boards, but it could also be that some CEO directors are especially valuable for some firms and not others. However, to the extent that our control variables pick up such factors, the latter explanation seems unlikely. CEO appointments are less likely for larger boards. A CEO is more likely to be appointed if a former CEO director left. This result suggests that an outside CEO stays on the board for some period once he stops being a CEO. However, it is worthwhile to note that out of the 1,731 CEO director appointments we have, a CEO director replaces an outgoing CEO director in only 110 of the cases. Consequently, a CEO director appointment is generally the appointment of an additional CEO director to the board.¹² The appointment of an outside CEO as director is much more likely when the insiders

¹² Only 6% of the CEO director appointments are preceded by at least one CEO director leaving the board, 17% are preceded by a former CEO director leaving, 25% are preceded by an insider leaving, and 60% are

have a smaller stake in the firm. CEO ownership and CEO directors could be substitutes. With greater ownership, a CEO bears more of the consequences of his actions (see Jensen and Meckling (1976)), so that monitoring and certification of the CEO are less useful.

Shivdasani and Yermack (1999) find that when the CEO is on the nominating committee, the probability of appointing an outside director is reduced. In unreported results, we find evidence consistent with theirs. Further, a firm is less likely to appoint an outside CEO director if the current CEO is on the nominating committee.¹³ If CEO directors are appointed to help entrench the incumbent CEOs, we would expect an increase in the probability of appointing a CEO director.

Perhaps not surprisingly in light of the earlier literature, Table 2 also shows that, in our sample, firms are more likely to appoint inside directors when the CEO is old, the firm is young, insider ownership is high, board size expands, and more inside directors have left the board.

4 CEO director appointments, firm performance and corporate decisions

In this section, we examine the impact of CEO directors on operating performance and various corporate decisions.

4.1 Changes in firm performance

If CEO directors monitor managers or provide expert advice, we would expect them to cause an increase in operating firm performance after the appointment. If CEO directors are buddies of the incumbent CEO, we should find a decline in performance. This decline might be expected by the CEO, leading her to appoint credible allies to the board, or this decline could be a result from having such allies, which makes it easier for the CEO to lower her effort and take actions that

preceded by other outside directors leaving. The percentages do not add up to 100% since each appointment can be associated with different types of director departures.

¹³ We obtain information on the nominating committee for a subset of our sample from the IRRC director database.

affect shareholders adversely. Finally, if CEO directors only act as certifiers, they would have no impact on operating performance, but performance might improve because such CEOs would not go to firms whose performance they have reasons to believe will worsen. It follows from this that an improvement in performance is inconsistent with the buddy hypothesis, but could be consistent with our other hypotheses. Our hypotheses also have implications for the performance prior to the appointment. Firms with good performance before the appointment would have less need for monitoring or advising and their CEOs would have less need for buddies. However, a CEO appointment at a firm with good prior performance would help certify that the good performance may continue. Hence, good performance before the appointment is most consistent with the certification hypothesis. Yet, as we discussed earlier, we would expect CEOs to be more willing to join firms with good performance, so that good performance might just result from a supply effect rather than a demand effect.

To examine how operating performance changes upon the appointment of different types of directors, we start with the sample of 26,231 appointments. The event year, or year 0, is the year of the director appointment. We further require that firms have performance data for year -2 and at least for one of the three years after the appointment. Performance is measured using return on assets (ROA). To be conservative, performance before the appointment is calculated as the average over event years -2 and -3. Performance after the appointment is calculated as the average over event years +1 through +3. The change in performance is the difference of the two averages. For an event year to be included in the sample, the appointed directors have to remain with the appointing firm for the whole year. If firms appoint different types of directors in the same year, we do not include these appointments in the analysis.¹⁴

To control for industry effects, we calculate the industry-adjusted ROA, which is the difference between the ROA and the median industry ROA, where the median industry ROA is

¹⁴ In unreported results, we restrict the sample further to cases with only one new appointment per annual meeting. Our results remain largely the same.

calculated based on all firms in the same 2-digit SIC industry. To control for size and performance prior to the appointment, we also calculate a size, performance, and industry-adjusted ROA, which is the difference between the unadjusted ROA and the ROA of a control firm. We choose as control the firm that is from the same 2-digit SIC code with a ROA in event year -2 that is within +/- 10% of the appointing firm and that is closest in size. For the adjusted ROA results, the adjustment is done before taking the averages. Similar to the appointing firms, all control firms are required to have ROA data before and after the appointment.

Univariate results of the operating performance change are presented in Table 3. The first panel of the table reports unadjusted ROA. It is immediately apparent that the firms that appoint CEOs to their board have the best performance. This result is consistent with the prediction that CEOs are attracted by boards of firms that are performing well and also consistent with firms appointing CEO directors to help certify their good performance. We see that the firms appointing CEOs also have better performance after the appointment than firms that appoint other types of directors. However, firm performance falls from before to after the appointment irrespective of the type of appointment, but it falls more for firms that appoint inside directors than for firms that appoint CEO directors. We then turn to the industry-adjusted performance. The results are similar, except that the decrease in performance for firms that appoint CEOs is not significant and that it is not significantly different from the decrease in performance for firms that appoint other types of outside directors. Finally, we consider the results for size, performance, and industry-adjusted ROA. The sample of appointing firms is unlikely to be a random sample. Changes in operating performance that are not adjusted for pre-event performance may lead to misspecified test statistics. Barber and Lyon (1996) show how to correct for this bias. Once we do so in the last panel, there is no difference in performance from before to after for firms that appoint CEOs to their board. In contrast, performance significantly improves for firms that appoint insiders or outside directors who are not CEOs, but this improvement in performance is not significantly better than for firms that appoint CEOs.

In Table 4, we report multivariate regressions of the change in performance around director appointments. Panel A reports regressions in which we control only for characteristics of the appointing firm. We report regression results using industry-adjusted ROA (columns 1 through 3) and size, performance, and industry-adjusted ROA (columns 4 through 6) as dependent variable. Some appointments are merely replacements of departing directors of the same type, and such appointments are unlikely to change the board structure. Therefore, we control for the nature of the appointment by including the type of departing director and whether firms are appointing a CEO director to their board for the first time.

Models 1 and 2 of Panel A estimate performance changes around appointments of all inside and outside directors. The variable ‘CEO director indicator’ is not significantly different from zero. Consequently, the regressions confirm the results of the univariate comparisons. The same results occur when we control for size, performance, and industry in columns 4 and 5. In columns 3 and 6 of Panel A, we investigate performance changes for CEO director appointments only. The only result that is robust across both specifications is striking. Performance decreases when the CEO of the appointing firm is on the board of the appointee’s firm prior to the appointment. The decrease in performance is 3.5 percentage points, an economically important effect given that the average ROA of firms appointing CEO directors is 13 percentage points. There is evidence in column 6 that size, performance, and industry-adjusted performance increases more when a CEO is appointed following more departures by inside and other outside board members who are not CEOs. There is also evidence that performance improves more around a CEO appointment for firms that do not pay dividends. Firms that do not pay dividends are firms that grow faster. There is little support for the monitoring hypothesis. If CEO directors are appointed because they are good monitors of incumbent CEOs, we should find that firms where the incentives of the management are least aligned with shareholders to benefit most from such monitoring. However, firms with low D&O ownership do not have better operating performance after the appointments of CEO directors.

Panel B focuses on performance changes around CEO director appointments and reports regressions in which we control for both characteristics of the appointing firm and characteristics of the appointee firm. The specification follows Perry and Peyer (2005). Panel B of Table 4 does not provide support for the expert hypothesis, which argues that CEO directors are appointed because of their unique expertise and experience, which makes them more qualified to provide advice. Table 4, Panel B provides no evidence that the appointment of higher quality CEO directors, where quality is measured by the stock performance of their firms, leads to increases in operating performance of the appointing firm. In fact, similar to the results of columns 3 and 6 of Panel A, only one variable is significant across the different specifications of Panel B. The appointment of an outside CEO to the board is associated with a significantly worse operating performance when the appointing firm's CEO is already on the board of the appointee's firm prior to the appointment. The economic magnitude is again large – if the director appointment creates an interlock, size and industry-adjusted performance decreases by 3.7%.

In both Panels A and B of Table 4, we find that the change in operating performance of the appointing firm is significantly weaker when the appointing firm's CEO is on the appointee firm's board. Such a result is consistent with the buddy hypothesis.

4.2 CEO Turnover

Table 5 examines whether CEO turnover is affected by the presence of CEO directors. Previous work has suggested that the sensitivity of CEO turnover to performance is too low (see, e.g., Murphy (1999)). If CEO directors are better monitors, we should see an increased sensitivity of CEO turnover to performance. However, if CEO directors are buddies of the incumbent CEOs, we should find a decreased sensitivity. Finally, if CEO directors merely certify the firm, we should not see any impact of CEO directors on the turnover-performance sensitivity.

CEO turnovers are obtained from the cleaned Compact Disclosure-Compustat sample. We identify the CEO of a firm using the list of officers provided by Compact Disclosure. The

Compact Disclosure – Compustat database contains 66,868 firm-years with information on the CEO and board structure. We further require that there is information on stock return data from CRSP. Also, since we are determining CEO turnover by comparing consecutive CEOs, we are not able to determine whether the CEO has changed for the first and last year the firm is in our database. There are 6,317 (11%) CEO turnover events.

We estimate probit regressions in Table 5. The base specification is similar to that of Kaplan and Minton (2006), except that they use the S&P 500 as a proxy for the market while we use the CRSP equally-weighted index since our sample includes many smaller firms. Using the value-weighted CRSP market index produces quantitatively and qualitatively similar results. The dependent variable is an indicator variable indicating the last year the CEO appears in the company's 10-K. Stock returns are measured over the fiscal year covered by this 10-K. Industry return is the median stock return of all firms in the same 2-digit SIC code. Firm stock return is the buy-and-hold stock return over the fiscal year. Similar to Kaplan and Minton (2006), we decompose the firm stock return into the market component, the industry component, and the idiosyncratic component. The indicator variable 'CEO director present' is equal to one if there is at least one CEO director on the board. The indicator variable '% Inside director > med' is equal to one if the proportion of inside directors on the board is greater than the median proportion of inside directors, which is 27% in our sample.

Consistent with the previous literature (e.g., Warner, Watts, and Wruck (1988), Jenter and Kanaan (2008), and Kaplan and Minton (2006)), the CEO of a firm that has poor stock market performance, controlling for market and industry performance, is more likely to lose his job. Similar to Jenter and Kanaan (2008), we find that poor market and poor industry performance also increase the probability of turnover although they are outside the influence of the CEO. We control for turnover due to retirement by including an indicator variable equal to one if the CEO is older than 60. The indicator variable is positive and strongly significant. We find that the presence of a CEO director on the board has no impact on the probability of a CEO losing his job,

but the presence of more inside directors than typical reduces that probability. Columns 2 through 4 examine whether boards with CEO directors and boards with more inside directors make the turnover-performance relation stronger. We see that CEO directors have no impact on the turnover-performance relation. However, surprisingly, we find in column 6 that there is increased performance-turnover sensitivity among firms with interlocked CEO-directors. The coefficient on the interaction term of idiosyncratic stock returns and CEO interlock is significant and negative.¹⁵

A difficulty with the interpretation of such a negative coefficient is that it could result from a CEO being less likely to leave when performance is good or from a CEO being more likely to leave when performance is poor. Only the latter explanation would be consistent with increased monitoring. We investigate the possibility of such an asymmetry in columns 7 and 8. We concentrate on measuring performance using stock returns net of industry returns since the significant coefficient is found on the interaction term between interlocked board and stock performance net of industry returns.¹⁶ Column 8 shows that the negative coefficient on an interlocked board in column 6 is explained by the fact that a CEO is less likely to leave when performance is good. This evidence suggests that life is more pleasant for the CEO with an interlocked board and that perhaps he is less likely to be willing to consider other positions in this case. We find that there is no evidence that having a CEO director on board makes it more likely that a CEO will lose his job for bad or good performance. The significant coefficient on the interaction between positive performance and the presence of CEO directors in column 7 becomes insignificant when we take into account interlocked boards. Consistent with Weisbach (1988), we find evidence that inside directors shield the CEO from bad stock performance, because the performance-turnover relationship is weaker when there are more inside directors on the board.

¹⁵ Out of the 57,153 observations with non-missing information on interlocked boards, there is a CEO director for 15,248 observations and for 1,256 of these observations there is an interlocked board.

¹⁶ In untabulated results, we find that interlocked boards have no impact on the sensitivity of turnover to market returns and industry performance.

To summarize, except for interlocked boards, we find that the presence of CEO directors neither affects CEO turnover nor the sensitivity of CEO turnover with regards to different performance measures.

4.3 Acquisition decisions

In Table 6, we examine cumulative abnormal returns to announcements of mergers and acquisitions. If CEO directors provide good advice or monitor managers, we would expect better merger announcement returns for firms with CEO directors on their board. It is often argued that managers pursue acquisitions to increase the size of their empire even though these acquisitions do not create shareholder wealth. Therefore, under the buddy hypothesis, we would expect CEO directors who are buddies of the CEO to make it easier for empire-building CEOs to pursue such a strategy and hence we would expect poorer acquisition announcement returns. If CEOs are too busy in their own jobs and are just certifiers, we should not see any effect on announcement returns.

The sample consists of 10,711 completed mergers and acquisition (M&A) deals undertaken by firms in the cleaned Compact Disclosure-Compustat database. The M&A deals are obtained from the Securities Data Corporation (SDC) database. We only include deals for domestic targets where the transaction value is at least one million dollars and at least 1% of the acquirer's market value prior to the announcement date. We calculate the cumulative abnormal returns of the acquirer over the event window (-1 day, +1 day), where day 0 is the announcement date. The abnormal returns are calculated based on a market model, where the parameters of the market model are estimated using data from days -280 to -61. The main independent variable of interest is the variable 'CEO director present', an indicator variable which equals one if the firm has at least one CEO director, and zero otherwise.

Column 1 of Table 6 shows that acquisitions made by firms with large boards and boards with outside CEOs are worse acquisitions. However, once we control for firm and deal

characteristics, board size and the presence of a CEO director no longer have any explanatory power. The coefficients on the firm and deal characteristics are similar to those reported in past studies (e.g., Moeller, Schlingemann, and Stulz (2005)). We also find, similar to Masulis, Wang, and Xie (2007), that a high fraction of inside directors does not affect acquisition performance. There is no evidence that acquisition performance is different when the board is interlocked.

4.4 CEO compensation

Recently, several authors have argued that CEOs will attempt to extract excess compensation from their firms if control mechanisms are weak (e.g., Bebchuk and Fried (2004), Yermack (2006)). The board of directors, especially the compensation subcommittee of the board, plays a pivotal role in setting executive compensation. In Table 7, we examine total CEO compensation and CEO pay-for-performance sensitivity in the presence of CEO directors. If CEO directors help monitor managers, we would expect total compensation not to be higher than what a benchmark compensation model predicts. If CEO directors and incentive compensation are substitute monitoring mechanisms, pay-for-performance sensitivity may be lower for firms with active CEO directors.

Under the buddy hypothesis, we would expect CEOs with allies on the board to be able to negotiate a higher CEO compensation. If risk-averse CEOs dislike the lack of diversification that equity incentives bring about, we would expect less pay-for-performance sensitivity under the buddy hypothesis. If CEOs are certifiers, we would expect that firms do not pay excessive compensation, because any negative coverage of such compensation would hurt the reputation of the CEO director and may trigger an investigation of his own compensation.

We use two samples to examine CEO compensation. Compact Disclosure reports total CEO cash compensation (i.e., salary plus cash bonus), which enables us to use our matched Compact Disclosure-Compustat sample for the cash compensation regressions. We also estimate regressions with total CEO compensation, which includes stock and option grants in the current

year. This information comes from a smaller sample that is constructed by merging our Compact Disclosure-Compustat sample with Standard and Poor's Execucomp database. Also using this smaller sample, we construct a measure of pay-for-performance sensitivity following the methodology of Core and Guay (2002). This measure reflects the dollar amount a CEO stands to lose if the firm's stock price drops by one percent. Because CEO compensation and dollar equity incentives are heavily right-skewed, we use the logarithmic transformation of the compensation measures in our regressions. The main independent variable of interest is the indicator variable 'CEO director present'. The other control variables follow the previous literature (e.g., Core, Holthausen, and Larcker (1999), Chhaochharia and Grinstein (2007), and Fahlenbrach (2008)). We estimate both industry-fixed effects regressions and firm-fixed effects regressions to mitigate concerns about unobservable firm characteristics driving both the presence of CEO directors and higher compensation. We also control for year-fixed effects.

Column 1 of Table 7 shows that in the larger sample, CEO cash compensation is about 3.4% higher if a CEO director is present. However, this result is not robust and disappears once we focus on either the smaller Execucomp sample (column 3) or firm-fixed effects regressions (columns 2 and 4). In columns 5 and 6, we estimate the impact of CEO directors on total compensation and find that CEO directors are associated with higher CEO total compensation, but only for the specification with industry fixed effects. Once we control for firm fixed effects, there is no impact of CEO directors. Columns 7 and 8 show the results for pay-for-performance sensitivity. There is some weak evidence from the industry-fixed effects regression that the presence of a CEO director lowers pay-for-performance sensitivity, but this effect is again not robust to the alternative firm-fixed effects specification.

Consistent with the cross-sectional results of Core, Holthausen, and Larcker (1999), we find no evidence that CEOs are paid more in firms with more insider directors. This result is surprising in light of the evidence in Chhaochharia and Grinstein (2007) that firms that were forced by the new governance rules of the exchanges to increase the fraction of outside directors

experienced a decrease in CEO pay. There is strong evidence that firms with more insider directors have CEOs with greater equity incentives. Board size is associated with weaker equity incentives but, in contrast with Core, Holthausen, and Larcker (1999), has no influence on total compensation. The coefficients of the control variables are generally consistent with the findings of the previous literature (e.g., Core, Holthausen, and Larcker (1999)).¹⁷ Bigger firms and better performing firms have higher compensation and pay-for-performance sensitivity. F-tests (not reported) show that the firm-fixed effects are highly significant in each regression.

As in any firm-fixed effects regression, the lack of significance of a coefficient may stem from the lack of within-firm time-variation of the underlying variable (e.g., Zhou (2001)). We observe frequent entries and exits of CEO directors. For the bigger sample, 28.9% of the firms changed their CEO director present status (from zero to one or one to zero), and for the smaller sample, 46.5% of the firms had a change. Thus it is unlikely that the lack of time-variation in the CEO director present indicator variable is causing low power in our firm-fixed effects regressions. Nevertheless, we re-estimate the firm fixed effects specifications restricting the sample to firms in which there is at least one change in the within-firm time-series for the indicator variable ‘CEO director present’. The results are in column 9 through 12. Again, there does not seem to be an impact of CEO directors on executive compensation. In all the regressions, total compensation is not related to the presence of interlocked CEO directors. This is consistent with Hallock (1997) who finds that current CEO interlocks do not lead to higher pay. Our results are not consistent with the conclusions of Faleye (2007) that having CEO directors distorts incentives. His sample covers the period 1998-2005. He reports regressions with industry fixed effects. As seen in Table 7, there is evidence of such a distortion with industry fixed effects, but the evidence disappears in our sample for firm fixed effects.

¹⁷ One exception is stock return volatility. Core, Holthausen, and Larcker (1999) find an insignificant negative coefficient on volatility for total compensation and a negative significant coefficient for salary.

4.5 Director turnover

Table 8 examines the determinants of director turnover. For the 26,231 director appointments, we follow each director from the first year he is appointed as director to the last year he is on the board of directors. The data underlying Table 8 consist of approximately 95,000 director-firm-year observations. The dependent variable is an indicator variable equal to one if the director turned over in the current fiscal year, and zero otherwise. The main independent variable is the interaction term between ‘CEO director indicator’ and ‘CEO left’. ‘CEO director indicator’ denotes whether the director was a current CEO of another company at the time of his appointment, while ‘CEO left’ is a dummy variable indicating whether the CEO who appointed the director has left in the 2 years prior to the turnover of the CEO director. If the buddy hypothesis is true, we expect the CEO director to leave once the CEO who appointed him has stepped down, i.e. the interaction term is positive.

Table 8 reports the results. We find that director turnover increases with poor market, industry, and idiosyncratic stock performance. Not surprisingly, director turnover increases if the director is of retirement age. There is some evidence that director turnover increases after the current CEO steps down, confirming previous results of board restructuring after top management turnover (e.g., Denis and Sarin (1999)). In column 4, we find evidence that directors tend to step down together, and that the frequency increases if the CEO leaves around the same time. CEO directors appear to have a longer tenure, as they are less likely to turn over than other directors. However, there is no evidence that CEO directors leave more often than other types of directors following the departures of the CEOs who appointed them. Overall, our evidence therefore does not support the buddy hypothesis.

4.6 Probability that the appointing firm will be taken over

The hypotheses have differing implications for the impact of CEO directors on takeover probability. If the CEO directors are buddies of the incumbent CEOs and help entrench them, we

should find that CEO directors have an adverse impact on the probability that the firm is taken over. If the main benefit of the appointment is a certification effect, we would expect a decrease in the probability that the appointing firm will be taken over since CEO directors increase the market's perception of the appointing firm's management. Finally, there is no clear prediction if the CEO director monitors or advises. Better advice and monitoring would reduce the probability that a takeover increases firm value, but a firm with a less entrenched board and management would be more likely to be sold when shareholders benefit.

To estimate the probability of being taken over, we start with our cleaned Compact Disclosure-Compustat database. Compustat provides the reason for the deletion of a firm from the database in footnote 35. We denote a firm as being taken over when footnote 35 equals '01' (acquisition or merger). All firm-years in the Compact Disclosure-Compustat database with non-missing information on board composition are included in the test. Out of 78,901 firm-year observations, 4,120 observations (5.2%) are takeover events.

Table 9 provides coefficient estimates for probit regressions of the probability of being taken over. The coefficients given are marginal effects. All regressions include year and industry fixed effects. Model 2 includes the control variables used by Bates, Becher, and Lemmon (2008). Model 3 includes additional control variables used by prior studies (for an overview, see Schwert (2000)).

Table 9 shows that the presence of CEO directors does not influence the takeover probability. There never is an effect of CEO directors, even when we focus on interlocked boards in column 4. Interestingly however, we find effects for the fraction of inside directors on board. If the fraction is unusually high, the probability of being taken over decreases by, depending on the specification, 0.5% to 1.0%. The effect is economically large, because the unconditional probability of a takeover is only 5.3%. There is some evidence that firms with a low Tobin's q

and low sales growth are more often takeover targets. Firms with smaller boards are more often taken over, although this effect may be related to non-linear size effects.¹⁸

4.7 Summary and interpretation of evidence

In this section, we investigated in six different ways the role of CEO directors. Except for interlocked boards, we found no evidence of a relation between CEO director appointments and changes in operating performance. The appointment of a CEO director from a firm that already has the appointing firm's CEO on its board is associated with worsening performance. Again except for interlocked boards, it does not appear that CEO directors increase the sensitivity of managerial turnover to performance. For a CEO director appointment that leads to a board interlock, the CEO of the appointing firm is less likely to leave with good performance but the rate of turnover does not increase for bad performance. CEOs of firms that have CEO directors on their board are not paid more and do not have less equity incentives. There is also no evidence that the rate of turnover for CEO directors increases when the appointing CEO turns over. We find that CEO directors are not associated with better acquisition decisions and that firms with CEO directors are not taken over at a differential rate. Consequently, our evidence is largely consistent with the hypothesis that CEO directors are appointed for their certification effect. One might argue that we find no impact because our tests are not powerful enough. However, we do find an impact for interlocks. When CEO director appointments create a CEO board interlock, operating performance worsens.

A legitimate concern, of course, is whether our results suffer from an endogeneity bias. This concern is most legitimate for the operating performance regressions. Had we found a change in performance to be associated with a CEO director appointment, we could not have interpreted it as evidence that the CEO director appointment caused the change in performance despite the event-study approach. It could have been that the CEO director was appointed because of an

¹⁸ If we include $\log(\text{assets})$ without board size in the regressions, it is strongly negatively significant.

anticipated negative change in performance to protect the incumbent CEO, or that CEOs are only willing to join a board when positive change in performance is anticipated. We find no change in operating performance when CEO directors are appointed. This evidence is consistent with the certification hypothesis, but it is hardly consistent with the other hypotheses since the other hypotheses would predict either a positive or negative change in performance, regardless of whether the appointment leads to the change or the expected change leads to the appointment.

5 Similarity and convergence of corporate policies

Section 4 examines whether the presence of CEO directors is associated with firm outcomes that are in the interests of shareholders and fall within the direct responsibility of the board of directors. Recent literature (for instance, Bertrand and Schoar (2003)) shows that preferences of executives can influence a wide variety of firm policies. In this section, we test whether the preferences or styles of CEO directors play a role for the appointing firm. Preferences could lead CEO directors to accept appointments by firms whose CEOs share their preferences and to push appointing firm policies towards their own firms' policies.

We examine whether corporate policies of the appointee CEO's firm and of the appointing firm are similar pre-appointment and become more similar post-appointment. Our empirical approach is to measure whether corporate policies of the appointing and appointee firm, both pre- and post-appointment, are closer than what we would expect according to some benchmark. We match each appointee firm with a group of firms that falls within +/- 30% of the book value of assets of the appointee's *own* firm in the year prior to the appointment.¹⁹ This approach thus

¹⁹ Ideally, we would like a comparison sample of firms with CEOs who would be available as director candidates and who work in firms that are considered valid alternatives by the nominating committee of the appointing firm. While we know some of the characteristics that make it more likely for CEOs to have more director appointments (e.g., more assets-in-place, higher profitability), we do not know whether particular CEOs are indeed available or willing to serve as directors.

measures whether corporate policies of the appointing firm are closer to the appointee firm than what we would expect from a size-matched sample alone.

We compare the policy variables both before and after the director appointment. To be conservative, we compare and measure corporate policy variables prior to the appointment during the event year -2 and compare this to the average policy over event year +1 and +2.²⁰ We therefore require that both appointing and appointee firms are in our database before the appointment and we also require that both firms remain in the database after the appointment. For specific years to be included, we require that the CEO director stays with the board of the appointing firm and also as CEO of his own firm for the full year. This is to ensure that the CEO director can exert his influence on the appointing firm and his own firm. Our final sample for this section contains 1,007 appointments of CEO directors.

For each corporate policy, we calculate a relative distance measure, which is defined as the ratio of the absolute difference between the appointing firm and appointee firm to the average absolute difference between the appointing firm and the benchmark firms. More precisely, we calculate for each appointment i :

$$Relative\ Distance_i = \frac{ABS(Policy_{E_i} - Policy_{A_i})}{\frac{1}{M} \sum_{j \neq i} ABS(Policy_{A_i} - Policy_j)}$$

where ABS is the absolute value function, $Policy_A$ is the corporate policy of the appointing firm, $Policy_E$ is the corporate policy of the appointee firm, $j = 1, \dots, M$ indexes the total number of firms in the benchmark group, and $Policy_j$ is the corporate policy of benchmark group firm j .

For each corporate policy, we then calculate a signed rank test to determine whether the median relative distance is significantly different from one.²¹ A relative distance that is significantly less than one implies that the appointing firm and appointee firm are more similar

²⁰ The results are also similar if we extend the window and examine the average of years -2 and -3 versus the average of years +1, +2, and +3.

²¹ In unreported results, we also use a t-test to test whether the average relative distance is significantly different from one and the results remain quantitatively and qualitatively similar.

than a randomly chosen firm from the control group. In addition, for each corporate policy, we test the null hypothesis of no difference in the relative distance measure before and after the new director appointment.

Table 10 provides medians of the various corporate and governance policies we examine.²² It is immediately clear from the table that the appointing firm is significantly different from the average matched firm for most characteristics. In contrast, the null hypothesis of no difference in characteristics cannot be rejected for many characteristics when we compare the appointee firm and appointing firm. The CEO directors come from firms that are more similar to the appointing firms than to the benchmark firms.

In Table 11, we analyze the relative distance measures for a variety of investment, financial, and governance policies. The first two columns show the distance measure and the p-value of the non-parametric signed rank test for policies prior to the appointment. The results strongly corroborate our earlier findings of similarities of the appointing and appointee firms. For all investment, financial, and governance policies, we find that the appointing and appointee firm are much closer than if the CEO director was chosen randomly from a size-matched control group. Such a result could come from supply and demand considerations. A CEO might be more comfortable to join the board of a firm with policies similar to his own, perhaps because he understands these policies better or feels that he will get along with the CEO better. Similarly, a CEO might seek out CEO directors whose firms have similar policies to his own because such directors are less likely to push for big changes in policies and are less likely to rock the boat. Alternatively, firms might seek CEOs of firms with similar policies because they think that familiarity with policies make the director a more useful advisor or monitor.

Columns 3 and 4 of the table show that the two firms remain similar in their corporate policies after the appointment of the CEO director. However, column 5 shows that there is no convergence in policies after the appointment. Column 5 reports p-values from a Wilcoxon

²² We draw similar conclusions when we examine means instead of medians.

signed rank test which tests the null hypothesis of no differences in the distance measure before and after the new director appointment. A statistically significant decrease in our distance measure from before to after the appointment of the CEO director would indicate convergence. Of all investment and financial policies we examine, we only find a statistically significant decrease in our distance measure for book leverage and short-term leverage. For the governance variables, we find evidence of convergence for the proportion of inside directors and for CEO share ownership. Overall, few firm characteristics show evidence of convergence. The results are not consistent with CEO directors influencing or advising incumbent CEOs on corporate policies, at least not in a way that makes the policies of the appointee firm and appointing firm more similar. The results are consistent with the certification hypothesis, in the sense that CEO directors do not impact the existing policies much after their appointment, but that they choose firms they understand to minimize the risk of agreeing to sit on the board of a firm that may eventually become troubled.

6 Conclusion

We set out to answer two questions. What are the determinants of CEO director appointments, and do CEO directors have a measurable impact on firms after they are appointed? Figure 2 summarizes the empirical implications of our analysis and shows which hypotheses are supported by our empirical investigation. Though the literature finds a positive stock-price reaction to the appointment of CEO directors, we find no evidence that CEO directors have an impact on the firm after their appointment, positive or negative, except for CEO interlocked boards, in which case there is evidence of a negative impact for some but not all outcome measures. The event study evidence can only be reconciled with our evidence if CEO directors help certify the appointing company and its management. With the certification hypothesis, CEO directors differ from other directors because their status and reputation enables them to certify the

firms that appoint them. CEO directors may be sought after by many firms, but they choose strategically their board seats in large, mature firms that they seem to understand, perhaps because they are worried about damage to their reputation should they be involved with a failing firm. After the appointment, we do not detect a discernable impact of CEO directors on high-level corporate decisions that fall within the responsibility of the board of directors, such as CEO turnover, CEO compensation, and merger and acquisition decisions. As one interviewee of Mace (1986) put it, such outside directors with prestigious names and titles appear to be mostly “attractive ornaments on the corporate Christmas tree”.²³ One possible explanation for the absence of an impact is that these directors are simply too busy with their day job to use their prestige, authority, and experience to have a substantial impact on the boards they sit on.

²³ Mace (1986), p. 107.

Appendix A: Definition of variables

The data appendix defines variables used in this study. All accounting variables and CEO compensation variables are winsorized at the 1% level in both tails. The last column of the appendix indicates the source of the underlying data.

Variable	Definition	Data source
<u>Types of Directors</u>		
CEO director	Director is currently a CEO of another firm covered in the database	Compact Disclosure
Inside director	Director is currently an officer of the firm	Compact Disclosure
Former CEO director	Director is previously a CEO of another firm	Compact Disclosure
Other outside director	Director who is neither a CEO nor an inside director. In some cases, other director exclude former CEO directors.	Compact Disclosure
<u>Firm Characteristics</u>		
Assets	Book value of assets (Millions of 2005 \$)	Compustat
Market capitalization	Market value of equity (Millions of 2005 \$)	Compustat
Firm age	Maximum(Years in CRSP, Years in Compustat)	CRSP and Compustat
Dividend payout ratio	Dividends paid to common and preferred shareholders/ operating income before depreciation	Compustat
Dividend payer indicator	Indicator variable equals to one when firm pays dividend	Compustat
Book leverage	(Long-term debt + short-term debt) / assets	Compustat
Market leverage	(Long-term debt + short-term debt) / (assets – book equity + market value of equity)	Compustat
Short-term leverage	Short-term debt/ assets	Compustat
Cash holdings	Cash / assets	Compustat
R&D expenditures	R&D expenditures/ lagged assets. Missing values are substituted with zero, unless indicated	Compustat
Capital expenditures	Capital expenditures / lagged assets	Compustat
Capital intensity	Net PPE / sales	Compustat
SG&A	Selling, general & admin.expenses / sales	Compustat
Sales growth	Current sales / lagged sales	Compustat
Return on assets (ROA)	Operating income before depreciation / lagged assets	Compustat
Tobin's Q	(Assets – book equity + market value of equity-deferred taxes) / assets	Compustat
Stock returns	Buy-and-hold returns over fiscal year	Compustat
<u>Firm Governance & Compensation Policies</u>		
CEO age	-	Compact Disclosure
Director age	-	Compact Disclosure
G index	Gompers, Ishii, and Metrick's (2003) governance index	IRRC database
Board size	Number of directors on the board	Compact Disclosure
Proportion of inside directors	Number of inside directors / board size	Compact Disclosure
D&O ownership	% of common shares owned by managers and directors. Missing values substituted with zero, unless indicated	Compact Disclosure
Institutional blockholder indicator	Indicator variable equals to one when firm has at least one institutional shareholder holding more than 5% of its common shares	Thomson 13F
Top 5 institutions holdings	% of common shares owned by five biggest institutional shareholders	Thomson 13F
CEO salary (CompactD)	CEO Cash Salary + Cash Bonus (Millions of 2005 \$)	Compact Disclosure
CEO salary (Execucomp)	CEO Cash Salary + Cash Bonus (Millions of 2005 \$)	Execucomp
CEO total compensation	CEO total compensation including value of stock and option grants (Millions of 2005 \$)	Execucomp
CEO dollar equity incentives	\$ change in value of CEO stock and option portfolio for a 1% change in firm value (Millions of 2005 \$)	Execucomp
CEO share ownership	% of shares held by CEO	Execucomp
CEO is chairman of board	Indicator variable equals to one when CEO is the chairman of the board	Compact Disclosure
CEO sits on nominating committee	Indicator variable equals to one when CEO sits on the nominating committee or the board does not have a nominating committee	IRRC database
CEO director present	Indicator variable equals to one when there is at least one CEO director on the board	Compact Disclosure
(%Inside director > med) indicator	Indicator variable equals to one when the proportion of inside directors is greater than the median proportion	Compact Disclosure
Interlocked board	Indicator variable equals to one if there is at least one direct reciprocal CEO interlock, i.e., CEO A sits on the board of CEO B and CEO B sits on the board of CEO A	Compact Disclosure

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Director Appointments, 1989 - 2002

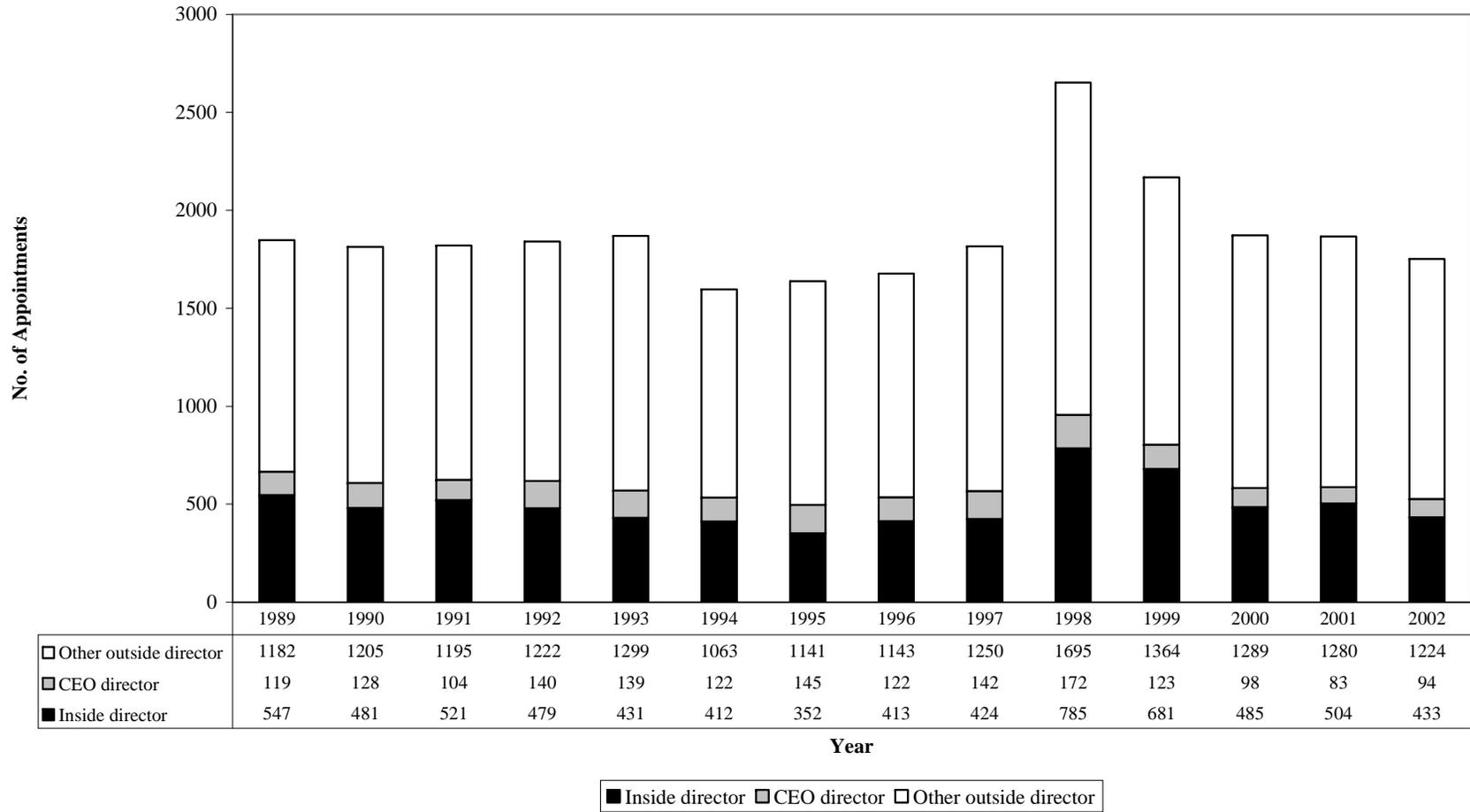


Figure 1: Distribution of director appointments from 1989 to 2002

Empirical Evidence	No Distinct Influence Certification	Make CEO Life Easier Buddy	Make Shareholders Better Off Expert	Monitoring
Determinants of appointment				
Low D&O ownership → CEO director appt	(√) Certification is more valuable when ownership is low	(√) CEOs with low incentives want a buddy on board	(X) Experts are appointed by insiders with incentives to increase firm value	(√) Monitoring is more valuable when ownership is low
Young CEO → CEO director appt	(√) Young CEOs need certification	(√) Young CEOs need buddies to support them	(√) Young CEOs need more expert advice	(~) No prediction
High R&D, low capital intensity firms → CEO director appt	(√) Informationally opaque firms need more certification	(~) No prediction	(√) High R&D firms have higher advising needs	(√) Informationally opaque firms need internal monitors
Performance changes				
No operating performance change after appointment	(√) Firms appoint CEO directors to buy into their reputation only	(X) CEOs who expect worsening performance appoint allies; buddies make CEO rent-seeking easier	(X) Performance increase as firms benefit from better advice from experts	(X) Performance increase as CEO rent-seeking activities drop
Outcome variables				
CEO directors do not affect turnover-performance sensitivity	(√) Certifiers do not monitor or entrench incumbent CEOs	(X) Buddies protect CEOs from being fired	(X) Experts can better evaluate CEOs	(X) Monitors fire bad-quality CEOs
CEO directors do not affect M&A performance	(√) Certifiers do not impact acquisition performance	(X) Buddies facilitate empire-building acquisitions	(X) Experts provide better acquisition advice	(X) Monitors prevent bad acquisitions
CEO directors do not affect compensation or pay-for-performance sensitivity (p-f-p)	(√) Certifiers do not affect comp. or p-f-p	(X) Buddies increase comp., reduce p-f-p	(X) Experts set appropriate comp., lower p-f-p	(X) Monitors set appropriate comp., lower p-f-p
CEO directors do not leave after appointing CEO left	(~) No prediction	(X) Buddies should leave with the appointing CEOs	(~) No prediction	(~) No prediction
CEO directors do not affect takeover probability	(X) Certifiers improve market perception of CEO	(X) Buddies protects CEOs from takeover	(~) No prediction	(~) No prediction
Similar policies prior to appointment	(√) Busy CEO directors sit on boards they understand	(√) Buddy shares the same ways of doing things	(√) Experts from similar background can provide relevant advice	(~) No prediction
Policies do not converge	(√) CEO directors do not influence firm policies	(√) CEO directors do not influence firm policies	(X) Experts advise policies according to their own style	(√) Optimal policies are likely firm-specific, so that monitoring does not imply convergence

(X) – Not supported; (√) – Supported; (~) – No prediction

Figure 2. Summary of hypotheses

Table 1: Summary statistics by type of director appointments

The table shows means and medians of key variables for a sample of 26,231 director appointments between 1989 and 2002. Medians are not shown for indicator variables. The summary statistics are reported for three different types of director appointments. Columns 1 and 2 show means and medians for appointments of outside directors who are currently CEOs of other firms, columns 3 and 4 for appointments of inside directors, and columns 5 and 6 for appointments of other outside directors. Variable definitions can be found in Appendix A. Dollar values are in millions of 2005 dollars. The information is taken just prior to the appointment. When comparing the appointing firm and appointee firm, only directors who are currently executives (other than CEO) of other firms are included in the calculation of the statistics for “Other Outside-Director.” Two-sample t-tests (Wilcoxon-Mann-Whitney tests) are conducted to test whether the means (medians) of CEO director appointments are significantly different from inside director appointments and other outside director appointments. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

Variable	CEO Director (N = 1,731)		Inside Director (N = 6,948)		Other Outside Director (N = 17,552)	
	Mean	Median	Mean	Median	Mean	Median
<u>Appointing Firm Characteristics</u>						
Assets	7757	1577	3719 ***	367 ***	3791 ***	436 ***
Market capitalization	4558	1154	2103 ***	245 ***	2185 ***	295 ***
Firm age	29.99	28.00	19.45 ***	13.00 ***	20.67 ***	15.00 ***
Dividend payout ratio	0.12	0.10	0.10 ***	0.04 ***	0.10 ***	0.05 ***
Dividend payer indicator	0.64	-	0.45 ***	-	0.46 ***	-
R&D expenditures	0.05	0.00	0.04	0.00 ***	0.05	0.00 ***
Capital expenditures	0.08	0.06	0.08	0.05 ***	0.08	0.05 ***
Capital intensity	0.48	0.23	0.45	0.20 ***	0.52 **	0.21 ***
Sales growth	1.15	1.08	1.21 ***	1.09 ***	1.20 ***	1.09 **
ROA	0.13	0.14	0.10 ***	0.12 ***	0.09 ***	0.12 ***
Tobin's Q	1.83	1.36	1.82	1.26 ***	1.86	1.27 ***
Stock returns	0.20	0.13	0.16 **	0.06 ***	0.18	0.08 ***
<u>Appointing Firm Board Structure</u>						
Board size	10.13	10.00	8.99 ***	8.00 ***	9.15 ***	8.00 ***
Proportion of CEO directors	0.08	0.00	0.04 ***	0.00 ***	0.05 ***	0.00 ***
Proportion of inside directors	0.24	0.20	0.32 ***	0.27 ***	0.29 ***	0.25 ***
<u>Appointing Firm Governance and Compensation Policies</u>						
CEO age	54.46	55.00	54.61	55.00	53.82 ***	54.00 ***
G index	9.83	10.00	9.02 ***	9.00 ***	9.28 ***	9.00 ***
D&O ownership (%)	10.96	4.47	19.84 ***	12.77 ***	18.09 ***	10.85 ***
Institutional blockholder indicator	0.68	-	0.62 ***	-	0.63 ***	-
Top 5 institutions holdings (%)	20.79	19.61	18.40 ***	17.20 ***	18.83 ***	17.71 ***
CEO salary (Compact D)	1.55	1.00	1.05 ***	0.58 ***	1.06 ***	0.62 ***
CEO total compensation	5.31	3.01	5.06	2.32 ***	4.95	2.33 ***
CEO dollar equity incentives	0.77	0.20	0.94	0.24 ***	0.82	0.20
CEO share ownership (%)	1.21	0.18	3.00 ***	0.40 ***	2.46 ***	0.30 ***
CEO is chairman of board	0.72	-	0.61 ***	-	0.63 ***	-
CEO sits on nominating committee	0.35	-	0.58 ***	-	0.53 ***	-
<u>Appointee Characteristics</u>						
Age of director	53.97	54.00	49.44 ***	50.00 ***	53.90	54.00
No. of other board seats	1.75	1.00	0.15 ***	0.00 ***	0.56 ***	0.00 ***
<u>Comparing Appointing Firm and Appointee Firm</u>						
Assets appointee firm > appointing firm	0.50	-			0.77 ***	-
Market cap appointee firm > appointing firm	0.53	-			0.77 ***	-
Firm age appointee firm > appointing firm	0.46	-			0.58 ***	-
Distance between headquarters (miles)	424.72	122.80			584.49 ***	272.25 ***
Relative distance (<1: closer than expected)	0.38	0.12			0.51 ***	0.26 ***
Same 2-Digit SIC industry	0.13	-			0.14	-
CEO on appointee's board prior appointment	0.04	-			0.03 *	-

Table 2: Determinants of CEO director appointments

The table reports results from a multinomial logit regression of the determinants of director appointments. The dependent variable is equal to zero if an inside director is appointed, one if a CEO director is appointed, and two for all other appointments, including appointments of former CEO directors. Coefficients in column 1 (column 2) are changes in the odds ratio of appointing a CEO director vs. an inside director (other director vs. an inside director). Column 3 contains the p-values of a chi-square test of statistical equality of the odds ratios in columns 1 and 2. Standard errors, reported in parentheses, are corrected for heteroskedasticity and are clustered at the firm-level. Variable definitions can be found in Appendix A. The regression contains year and industry fixed effects, and indicator variables indicating missing R&D expenditures and missing D&O ownership (not reported). Industry classification is based on the Fama-French 48 industry classification. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Director appointment of		Test of equality
	CEO Director vs. Inside Director	Other outside Director vs. Inside Director	
Proportion of CEO directors	1.735*** (0.329)	0.238 (0.214)	0.000***
Proportion of inside directors	0.224 (0.239)	0.234* (0.125)	0.961
Proportion of former CEO directors	1.435*** (0.354)	-0.031 (0.210)	0.000***
Board size	-0.030** (0.012)	-0.003 (0.007)	0.014**
No. of CEO directors who left	-0.034 (0.112)	-0.021 (0.088)	0.880
No. of inside directors who left	-0.463*** (0.055)	-0.354*** (0.026)	0.031**
No. of former CEO directors who left	0.328*** (0.085)	0.147** (0.062)	0.007***
No. of other outside directors who left	0.104*** (0.036)	0.185*** (0.023)	0.003***
Change in no. of board seats	-0.175*** (0.025)	-0.084*** (0.016)	0.000***
D&O ownership (%)	-0.918*** (0.236)	-0.269** (0.107)	0.004***
Log(Assets)	0.202*** (0.024)	0.009 (0.013)	0.001***
Log(Firm age)	0.184*** (0.050)	0.085*** (0.026)	0.032**
Dividend payer indicator	0.182** (0.084)	-0.019 (0.046)	0.008***
R&D expenditures	1.312*** (0.455)	0.022 (0.227)	0.002***
Capital expenditures	0.991** (0.460)	-0.157 (0.243)	0.006***
Capital intensity	-0.137** (0.060)	0.067** (0.027)	0.001***
Sales growth	-0.134* (0.073)	-0.022 (0.035)	0.114
ROA	-0.154 (0.215)	-0.195* (0.101)	0.840
Stock returns	0.098* (0.058)	0.038 (0.029)	0.249
Log(CEO age)	-1.159*** (0.210)	-0.775*** (0.112)	0.040**
Institutional blockholder indicator	0.109* (0.065)	0.032 (0.036)	0.192

Table 3: Univariate analysis of operating performance change

The table examines changes in ROA following the appointments of different types of directors. ROA is defined as the ratio of operating income before depreciation to lagged book value of assets. Industry-adjusted ROA is the difference between ROA and the median industry ROA, where the median industry ROA is calculated based on all firms in the same 2-digit SIC industry. Size, performance, and industry-adjusted ROA is the difference between the unadjusted ROA and the ROA of a control firm. The control firm is the firm that is from the same 2-digit SIC code with a ROA in event year -2 that is within +/- 10% of the appointing firm and that is closest in size. Performance before the appointment is calculated as the average over event years -2 and -3. Performance after the appointment is calculated as the average over event years +1 through +3. All appointing firms and matching firms are required to have ROA data before and after the appointment. Directors are required to remain with the appointing firm for the whole year for that year to be included. If firms appoint different types of directors at the same time, they are deleted from the analysis. T-tests and signed rank tests are used to determine whether the mean and median operating performance and performance changes are significantly different from zero. The statistical significance of these tests is indicated in the columns “Mean” and “Median,” immediately following the performance and change in performance. Two-sample t-tests and Wilcoxon-Mann-Whitney tests are used to test whether the mean and median for the inside directors (other directors) are significantly different from those for the CEO director sample. P-values from these tests are given in the columns “T-Test” and “Wilcoxon Test.” Statistical significance at the 1%, 5%, 10% level is indicated by ***, **, and *.

	CEO Director		Inside Director				Other Outside Director			
	Mean	Median	Mean	T-Test	Median	Wilcoxon Test	Mean	T-Test	Median	Wilcoxon Test
Unadjusted ROA										
Before	0.1440 ***	0.1475 ***	0.1180 ***	0.00***	0.1278 ***	0.00***	0.1061 ***	0.00***	0.1264 ***	0.00***
After	0.1332 ***	0.1445 ***	0.0976 ***	0.00***	0.1077 ***	0.00***	0.0944 ***	0.00***	0.1131 ***	0.00***
Change	-0.0108 **	-0.0057 ***	-0.0204 ***	0.09*	-0.0085 ***	0.06*	-0.0118 ***	0.85	-0.0060 ***	0.53
Industry-Adjusted ROA										
Before	0.0211 ***	0.0187 ***	0.0028	0.01***	0.0054 ***	0.00***	-0.0112 ***	0.00***	0.0055 ***	0.00***
After	0.0195 ***	0.0224 ***	-0.0072 **	0.00***	0.0028 ***	0.00***	-0.0128 ***	0.00***	0.0042 ***	0.00***
Change	-0.0015	-0.0008	-0.0100 ***	0.13	-0.0029 ***	0.09*	-0.0015	1.00	-0.0012 ***	0.66
Size, Performance, Industry-Adjusted ROA										
Before	0.0030	0.0001	0.0013	0.50	0.0009	0.93	0.0008	0.33	0.0003 ***	0.90
After	0.0040	0.0062 **	0.0075 **	0.60	0.0018 **	0.40	0.0076 ***	0.55	0.0026 ***	0.52
Change	0.0009	0.0051	0.0063 *	0.44	0.0014 **	0.75	0.0069 ***	0.34	0.0013 ***	0.80

Table 4: Multivariate analysis of operating performance change

Panel A of the table reports results from regressions of changes in ROA around different types of director appointments. Panel B of the table reports results from a regression of changes in ROA around appointments of CEO directors only, following the specification of Perry and Peyer (2005). For both panels, the dependent variable in the first set of columns is the change in industry-adjusted ROA and in the second set of columns, the dependent variable is the change in size, performance, and industry-adjusted ROA. For most of the independent variables, an average value is calculated over event years -3 and -2, except firm age, CEO age, and director age where the variables are taken as of event year -1. In Panel A, columns 1, 2, 4 and 5 are based on all appointments, and columns 3 and 6 are based on appointments of CEO directors only. *CEO director indicator* (*Other outside director indicator*) is an indicator variable equal to one if a CEO (non-CEO outsider) is appointed director. *No CEO director on board before* is an indicator variable equal to one if the firm does not have a CEO director on its board before. *CEO on appointee's board prior to appointment* is an indicator variable equal to one if the appointing CEO sits on the board of the director prior to his appointment to the board. Other variable definitions can be found in Appendix A. The regressions contain indicator variables for missing R&D expenditures and missing D&O ownership (not reported). Standard errors, reported in parentheses, are corrected for heteroscedasticity. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

Panel A.

	Industry-Adjusted ROA			Size, Performance, Industry-Adjusted ROA		
	All Appointments		CEO Director	All Appointments		CEO Director
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-0.010*** (0.003)	0.034 (0.040)	-0.160 (0.165)	0.006* (0.004)	0.104* (0.055)	0.100 (0.240)
CEO director indicator	0.008 (0.006)	0.007 (0.006)		-0.005 (0.007)	-0.007 (0.007)	
Other outside director indicator	0.008*** (0.003)	0.005 (0.003)		0.001 (0.004)	-0.002 (0.005)	
<u>Appointing Firm Board Characteristics</u>						
Proportion of CEO directors		0.025 (0.019)	0.115** (0.054)		-0.009 (0.025)	0.055 (0.068)
Proportion of inside directors		-0.009 (0.009)	-0.104** (0.053)		-0.009 (0.013)	-0.017 (0.073)
Proportion of former CEO directors		-0.014 (0.019)	0.068 (0.047)		0.001 (0.024)	0.080 (0.060)
Board size		0.001** (0.000)	-0.001 (0.002)		-0.000 (0.000)	0.001 (0.002)
No. of CEO directors who left		0.006 (0.007)	0.011 (0.017)		0.003 (0.008)	0.024 (0.018)
No. of inside directors who left		-0.001 (0.002)	-0.002 (0.013)		-0.002 (0.003)	0.032** (0.015)
No. of former CEO directors who left		0.000 (0.004)	-0.006 (0.011)		0.006 (0.005)	-0.003 (0.013)
No. of other outside directors who left		0.000 (0.001)	0.003 (0.009)		0.000 (0.002)	0.032*** (0.012)
Change in no. of board seats		0.002** (0.001)	-0.005 (0.009)		0.004*** (0.001)	0.030** (0.012)
No CEO director on board before		-0.002 (0.004)	0.008 (0.015)		-0.007 (0.005)	0.013 (0.019)
CEO on appointee's board prior appointment			-0.048** (0.020)			-0.035* (0.019)
<u>Appointing Firm Characteristics</u>						
D&O ownership (%)		-0.000 (0.000)	0.001 (0.000)		-0.001*** (0.000)	-0.001 (0.001)
Log(Assets)		-0.004*** (0.001)	0.004 (0.005)		-0.003** (0.001)	0.000 (0.006)
Log(Firm age)		0.004** (0.002)	0.015* (0.008)		0.000 (0.003)	0.014 (0.011)
Dividend payer indicator		-0.003 (0.003)	-0.012 (0.014)		-0.000 (0.004)	-0.034* (0.019)
R&D expenditures		0.184*** (0.034)	0.168 (0.140)		-0.004 (0.048)	-0.139 (0.166)
Capital expenditures		-0.113*** (0.022)	-0.106 (0.079)		0.004 (0.028)	0.103 (0.113)
Capital intensity		0.010*** (0.002)	0.000 (0.007)		-0.006 (0.004)	-0.022** (0.011)
Sales growth		-0.008 (0.006)	0.041 (0.033)		-0.020** (0.010)	-0.058 (0.049)
Stock returns		-0.034*** (0.005)	-0.058*** (0.017)		-0.007 (0.006)	0.012 (0.024)
Log(CEO age)		-0.007 (0.009)	0.017 (0.042)		-0.006 (0.013)	-0.018 (0.058)
Institutional blockholder indicator		-0.003 (0.003)	-0.006 (0.010)		-0.008* (0.004)	-0.016 (0.016)
Observations	14579	11970	597	12534	10378	542
Adjusted R-square	0.000	0.034	0.072	0.000	0.006	0.044

Panel B.

	Industry-Adjusted ROA CEO Director (1)	Size, Performance, Industry-Adjusted ROA CEO Director (2)
Constant	0.240 (0.261)	0.104 (0.334)
No. of other board seats by director	-0.004 (0.004)	-0.003 (0.007)
Appointing firm D&O ownership (%)	0.001 (0.000)	-0.000 (0.001)
Appointee firm D&O ownership (%)	-0.001 (0.000)	-0.000 (0.001)
Log(Director age)	-0.031 (0.040)	0.001 (0.065)
Log(Appointing firm CEO age)	-0.027 (0.049)	-0.026 (0.061)
CEO on appointee's board prior to appointment	-0.057*** (0.021)	-0.037** (0.019)
Appointing firm is a financial firm	0.008 (0.022)	-0.041*** (0.016)
Appointee firm is a financial firm	-0.005 (0.029)	-0.021 (0.029)
Same 2-digit SIC industry	0.019 (0.025)	-0.030 (0.031)
Log(Appointee firm assets)	0.004 (0.004)	-0.001 (0.006)
No. of CEO directors who left	0.031 (0.020)	0.045** (0.021)
No. of inside directors who left	0.006 (0.014)	0.036** (0.017)
No. of former CEO directors who left	-0.004 (0.012)	0.019 (0.014)
No. of other outside directors who left	0.005 (0.009)	0.040*** (0.012)
Change in no. of board seats	0.004 (0.008)	0.040*** (0.013)
Appointing firm stock returns	-0.051*** (0.020)	0.024 (0.027)
Appointee firm stock returns	0.007 (0.019)	0.006 (0.019)
Appointing firm Q	0.005 (0.008)	-0.007 (0.010)
Appointee firm Q	-0.003 (0.005)	-0.002 (0.006)
Appointing firm is smaller than appointee firm	-0.003 (0.011)	0.002 (0.015)
Appointing firm CEO is chairman	-0.016 (0.015)	0.012 (0.019)
Proportion of inside directors on appointing firm board	-0.072 (0.048)	-0.036 (0.076)
(Distance btw firm HQ > median) indicator	-0.004 (0.009)	-0.009 (0.013)
No CEO director on board before	-0.012 (0.013)	-0.004 (0.021)
Observations	512	467
Adjusted R-square	0.025	0.000

Table 5: CEO directors and CEO turnover

The table presents results from probit regressions examining whether the CEO turnover-performance sensitivity is affected by the presence of CEO directors. CEO turnovers are obtained from the cleaned Compact Disclosure-Compustat sample. The dependent variable is an indicator variable equal to one in the last year where the CEO appears in the company's 10-K as such. Stock returns are measured over the fiscal year covered by this 10-K. *Market return* is the CRSP equal-weighted market return, *industry return* is the median stock returns of all firms in the same 2-digit SIC code, and *firm stock return* is the buy-and-hold stock return over the fiscal year. *CEO director present* is an indicator variable which equals one if there is at least one CEO director on the board. *%Inside director > med* is an indicator variable which equals one if the proportion of inside directors on the board is greater than the median proportion in the sample. *Interlocked board* is an indicator variable indicating whether there is at least one direct reciprocal CEO interlock on the firm's board, i.e., CEO A sits on the board of CEO B's firm, and CEO B sits on the board of CEO A's firm. Columns 7 and 8 test for an asymmetry in the turnover-performance relation. *Negative performance* is equal to the industry-adjusted return if the industry-adjusted return is negative, and zero otherwise. Positive performance is defined accordingly. The table reports marginal effects. Standard errors, reported in parentheses, are clustered at the firm level. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	Testing for Asymmetry	
							(7)	(8)
EW market return	-0.048*** (0.007)	-0.031*** (0.010)	-0.048*** (0.007)	-0.048*** (0.007)	-0.048*** (0.007)	-0.048*** (0.007)	-0.055*** (0.007)	-0.056*** (0.007)
Industry return - EW market return	-0.073*** (0.007)	-0.073*** (0.007)	-0.094*** (0.010)	-0.073*** (0.007)	-0.073*** (0.007)	-0.074*** (0.007)	-0.085*** (0.007)	-0.085*** (0.007)
Firm stock return - Industry return	-0.033*** (0.003)	-0.033*** (0.003)	-0.033*** (0.003)	-0.032*** (0.005)	-0.033*** (0.003)	-0.031*** (0.004)		
Old CEO (=1 if CEO age >= 60)	0.081*** (0.003)	0.081*** (0.003)	0.081*** (0.003)	0.081*** (0.003)	0.081*** (0.003)	0.081*** (0.003)	0.087*** (0.004)	0.087*** (0.004)
CEO director present	0.002 (0.003)	0.005 (0.004)	0.005 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.011*** (0.004)	0.011** (0.004)
(%Inside director > med) indicator	-0.011*** (0.003)	-0.007** (0.003)	-0.007** (0.003)	-0.011*** (0.003)	-0.011*** (0.003)	-0.011*** (0.003)	-0.010** (0.004)	-0.010*** (0.004)
CEO director present*Interlocked board					-0.007 (0.008)	-0.006 (0.008)		0.006 (0.012)
CEO director present*EW market return		-0.016 (0.013)						
(%Inside director > med)*EW market return		-0.028** (0.012)						
CEO director present*(Industry ret - EW market ret)			0.019 (0.014)					
(%Inside director > med)*(Industry ret - EW market ret)			0.034*** (0.012)					
CEO director present*(Firm stock ret - industry ret)				-0.012 (0.007)		-0.010 (0.007)		
(%Inside director > med)*(Firm stock ret - industry ret)				0.002 (0.006)		0.002 (0.006)		
CEO director present*Interlocked board*(Firm stock ret - industry ret)						-0.063** (0.027)		
							Performance =	
							<i>Firm Stock Ret - Industry Ret</i>	
Negative performance							-0.155*** (0.010)	-0.154*** (0.010)
Positive performance							0.000 (0.004)	0.000 (0.004)
CEO director present*Negative performance							0.012 (0.014)	0.012 (0.014)
CEO director present*Positive performance							-0.012* (0.006)	-0.010 (0.006)
(%Inside director > med)*Negative performance							0.024** (0.012)	0.024* (0.012)
(%Inside director > med)*Positive performance							-0.002 (0.005)	-0.002 (0.005)
CEO director present*Interlocked board*Negative performance								-0.000 (0.052)
CEO director present*Interlocked board*Positive performance								-0.073* (0.038)
Observations	57353	57353	57353	57353	57153	57153	57353	57153
Pseudo R-square	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03

Table 6. CEO directors and merger performance

The table reports OLS regressions of the cumulative abnormal announcement returns to mergers and acquisitions. The sample consists of 10,711 M&A deals undertaken by firms in the cleaned Compact Disclosure-Compustat samples. The M&A deals are from SDC. The dependent variable is the cumulative abnormal announcement return of the acquirer over event window (-1,+1). The abnormal returns are calculated from a market model, where the parameters of the market model are estimated using data from days -280 to -61. *CEO director present* is an indicator variable which equals one if there is at least one CEO director on the board. *%Inside director > med* is an indicator variable which equals one if the proportion of inside directors on the board is greater than the median proportion in the sample. *Interlocked board* is an indicator variable equal to one if there is at least one direct reciprocal CEO interlock on the firm's board, i.e., CEO A sits on the board of CEO B's firm, and CEO B sits on the board of CEO A's firm. Standard errors, reported in parentheses, are corrected for heteroskedasticity. The regressions contain year-fixed effects and Fama-French 48 industry-fixed effects. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)
Constant	0.010 (0.013)	0.033** (0.015)	0.029* (0.016)
CEO director present	-0.007*** (0.002)	-0.001 (0.002)	-0.001 (0.002)
(%Inside director > med) indicator	0.004** (0.002)	0.001 (0.002)	0.001 (0.002)
CEO director present*Interlocked board			0.002 (0.006)
Board size	-0.002*** (0.000)	0.000 (0.000)	0.000 (0.000)
Log(Assets)		-0.005*** (0.001)	-0.006*** (0.001)
Market leverage		0.021*** (0.008)	0.022*** (0.008)
Tobin's Q		-0.003*** (0.001)	-0.003*** (0.001)
Private target indicator		-0.002 (0.002)	-0.003 (0.002)
Public target indicator		-0.033*** (0.003)	-0.033*** (0.003)
Same industry indicator		0.001 (0.002)	0.001 (0.002)
Tender offer indicator		0.026*** (0.005)	0.030*** (0.005)
Hostile deal indicator		-0.010 (0.010)	-0.011 (0.011)
Competed deal indicator		0.006 (0.008)	0.007 (0.009)
100% Cash payment indicator		0.006*** (0.002)	0.006*** (0.002)
100% Stock payment indicator		0.003 (0.003)	0.003 (0.003)
Cash flow/ lagged assets		-0.010 (0.007)	-0.006 (0.007)
Transaction value/ Acq market value		0.017*** (0.006)	0.010** (0.005)
Observations	10686	10402	9692
Adjusted R-square	0.02	0.05	0.05

Table 7. CEO directors and executive compensation

The table presents results from regressions of different measures of CEO compensation and pay-for-performance sensitivity. The sample is the cleaned Compact Disclosure-Compustat database. *CEO director present* is an indicator variable which equals one if there is at least one CEO director on the board. *%Inside director > med* is an indicator variable which equals one if the proportion of inside directors on the board is greater than the median proportion in the sample. *Interlocked board* is an indicator variable equal to one if there is at least one direct reciprocal CEO interlock on the firm's board. Return volatility is the standard deviation of the daily stock returns over the previous fiscal year. *CEO tenure* is the number of months the CEO has served as such. All other variable definitions can be found in Appendix A. All accounting ratios are taken as of the previous fiscal year. Standard errors, reported in parentheses, are clustered at the firm level. All regressions contain year-fixed effects. Industry-fixed effects are based on Fama-French 48 industry classification. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	All Firms								Firms which changes CEO director present status			
	Log(CEO salary, Compact D)		Log(CEO salary, Execucomp)		Log(CEO total compensation)		Log(CEO dollar equity incentives)		Log(CEO salary, Compact D)	Log(CEO salary, Execucomp)	Log(CEO total compensation)	Log(CEO dollar equity incentives)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Constant	-2.663*** (0.031)	-1.212*** (0.065)	-2.457*** (0.136)	-1.054*** (0.259)	-2.938*** (0.111)	-0.653*** (0.181)	-7.440*** (0.164)	-4.139*** (0.260)	-1.643*** (0.084)	-0.525 (0.380)	0.004 (0.248)	-4.426*** (0.333)
CEO director present	0.034*** (0.010)	0.015 (0.011)	0.024 (0.021)	0.004 (0.025)	0.079*** (0.022)	0.012 (0.021)	-0.060* (0.034)	-0.020 (0.030)	0.015 (0.011)	0.004 (0.026)	0.014 (0.021)	-0.022 (0.030)
(% inside director > med) indicator	-0.040*** (0.009)	-0.016* (0.009)	-0.056** (0.024)	0.009 (0.027)	-0.105*** (0.026)	0.034 (0.022)	0.264*** (0.038)	0.152*** (0.031)	-0.021 (0.013)	0.021 (0.039)	0.058** (0.027)	0.140*** (0.041)
CEO director present*Interlocked board	0.052 (0.033)	0.001 (0.027)	-0.006 (0.042)	-0.021 (0.032)	-0.063 (0.056)	-0.018 (0.049)	0.115 (0.087)	0.004 (0.060)	-0.008 (0.030)	-0.038 (0.037)	-0.044 (0.062)	0.028 (0.073)
Board size	0.006** (0.002)	-0.000 (0.002)	0.021*** (0.006)	0.004 (0.007)	0.001 (0.006)	0.007 (0.005)	-0.042*** (0.008)	-0.020*** (0.007)	-0.001 (0.003)	0.008 (0.006)	0.011** (0.006)	-0.008 (0.008)
Log(Assets)	0.348*** (0.005)	0.179*** (0.010)	0.260*** (0.015)	0.075** (0.038)	0.419*** (0.013)	0.119*** (0.024)	0.504*** (0.016)	0.148*** (0.031)	0.170*** (0.013)	0.080* (0.045)	0.141*** (0.029)	0.176*** (0.039)
ROA	0.166*** (0.027)	0.239*** (0.028)	0.610*** (0.114)	0.540*** (0.181)	0.672*** (0.106)	0.748*** (0.114)	1.510*** (0.136)	1.191*** (0.138)	0.252*** (0.039)	0.623** (0.289)	0.827*** (0.138)	1.245*** (0.162)
Stock returns	0.061*** (0.005)	0.052*** (0.004)	0.117*** (0.015)	0.099*** (0.015)	0.099*** (0.016)	0.058*** (0.016)	0.123*** (0.019)	0.107*** (0.015)	0.058*** (0.006)	0.113*** (0.018)	0.064*** (0.024)	0.114*** (0.020)
Tobin's Q	0.026*** (0.004)	0.010*** (0.003)	-0.033*** (0.012)	-0.033** (0.014)	0.065*** (0.013)	0.018 (0.013)	0.214*** (0.014)	0.093*** (0.011)	0.009** (0.005)	-0.044** (0.021)	0.010 (0.018)	0.090*** (0.014)
Return volatility	-0.737*** (0.269)	-0.818*** (0.257)	-4.907*** (1.240)	-4.163*** (1.468)	4.417*** (1.066)	-2.583** (1.120)	-1.314 (1.561)	-5.183*** (1.440)	-0.578 (0.423)	-3.803* (1.987)	-1.734 (1.473)	-5.453*** (1.881)
Log(CEO tenure)			0.072*** (0.011)	0.073*** (0.011)	-0.008 (0.011)	-0.012 (0.011)	0.484*** (0.018)	0.377*** (0.018)		0.056*** (0.013)	-0.015 (0.013)	0.369*** (0.023)
Observations	54263	54263	16588	16588	16337	16337	16157	16157	24891	9525	9376	9291
Industry Fixed Effects	Yes	No	Yes	No	Yes	No	Yes	No	No	No	No	No
Firm Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Adjusted R-square	0.58	0.78	0.26	0.50	0.39	0.62	0.50	0.78	0.75	0.48	0.61	0.78

Table 8. CEO directors and director turnover

The table presents results from probit regressions examining whether director turnover is affected by the departure of the CEO who appointed the director. We start with the sample of 26,231 director appointments between 1989 and 2002 and follow the directors for all years that the directors remain on the board. The dependent variable is an indicator variable equal to one if the director turns over in a given year, and zero otherwise. *CEO left* is a dummy variable indicating whether the CEO who appointed the director has left in the past 2 years. *CEO director indicator* (*Inside director indicator*) is an indicator variable equal to one if the director is a CEO of another firm (employee of the firm) at the time of the appointment. *No. of directors left* is the number of directors, excluding the director examined, who left the board during the year. *CEO on appointee's board prior to appointment* is an indicator variable equal to one if the appointing CEO sits on the board of the director prior to his appointment to the board. The table reports marginal effects. Standard errors, reported in parentheses, are clustered at the firm level. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)
EW market return	-0.038*** (0.006)	-0.038*** (0.006)	-0.038*** (0.006)	-0.035*** (0.005)	-0.035*** (0.005)
Industry return - EW market return	-0.030*** (0.006)	-0.030*** (0.006)	-0.030*** (0.006)	-0.035*** (0.005)	-0.035*** (0.005)
Firm stock return - Industry return	-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)	-0.001 (0.002)	-0.001 (0.002)
Old director (=1 if director age >= 60)	0.018*** (0.002)	0.018*** (0.002)	0.018*** (0.002)	0.017*** (0.002)	0.017*** (0.002)
Log(Director tenure)	-0.017*** (0.002)	-0.017*** (0.002)	-0.017*** (0.002)	-0.017*** (0.001)	-0.017*** (0.001)
CEO left indicator	0.012*** (0.003)	0.015*** (0.003)	0.015*** (0.003)	-0.003 (0.004)	-0.003 (0.004)
CEO director indicator	-0.022*** (0.003)	-0.020*** (0.004)	-0.019*** (0.004)	-0.021*** (0.003)	-0.021*** (0.004)
Inside director indicator	0.075*** (0.004)	0.077*** (0.004)	0.077*** (0.004)	0.074*** (0.004)	0.074*** (0.004)
CEO director indicator*CEO left		-0.006 (0.009)	-0.007 (0.009)	-0.005 (0.009)	-0.006 (0.009)
Inside director indicator*CEO left		-0.008 (0.006)	-0.008 (0.006)	-0.006 (0.005)	-0.006 (0.005)
CEO on appointee's board prior appointment			-0.018 (0.015)		-0.017 (0.015)
CEO on appointee's board prior*CEO dir*CEO left			0.032 (0.048)		0.025 (0.046)
No. of directors left				0.022*** (0.001)	0.022*** (0.001)
No. of directors left* CEO left				0.004** (0.002)	0.004** (0.002)
Observations	94486	94486	94486	94486	94486
Pseudo R-square	0.02	0.02	0.02	0.05	0.05

Table 9. CEO directors and takeover probability

The table presents results from probit regressions of the probability of being taken over on board composition and control variables. The sample is the cleaned Compact Disclosure-Compustat database. The dependent variable is an indicator variable equal to one for firm-years in which a firm is being taken over, and zero otherwise. Firm characteristics are measured at the end of the last fiscal year before delisting. *CEO director present* is an indicator variable equal to one if there is at least one CEO director on the board. *%Inside director > med* is an indicator variable which equals one if the proportion of inside directors on the board is greater than the median proportion in the sample. *Interlocked board* is an indicator variable indicating whether there is at least one direct reciprocal CEO interlock on the firm's board, i.e., CEO A sits on the board of CEO B's firm, and CEO B sits on the board of CEO A's firm. Definitions of the other variables can be found in Appendix A. The table reports marginal effects. Standard errors, reported in parentheses, are clustered at the firm level. The regressions contain year-fixed effects and Fama-French 48 industry-fixed effects, and an indicator variable for missing D&O ownership (not reported). Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	(1)	(2)	(3)	(4)
CEO director present	0.000 (0.002)	0.001 (0.002)	0.001 (0.002)	-0.004 (0.003)
(%Inside director > med) indicator	-0.010*** (0.002)	-0.009*** (0.002)	-0.007*** (0.002)	-0.005* (0.003)
Board size	-0.002*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.000 (0.000)
Log(Assets)		-0.001 (0.000)	-0.001* (0.001)	-0.006*** (0.001)
Book leverage		-0.007* (0.004)	-0.008* (0.004)	0.009 (0.007)
Tobin's Q		-0.006*** (0.001)	-0.006*** (0.001)	-0.006*** (0.001)
Stock returns		0.003** (0.001)	0.002* (0.001)	0.001 (0.002)
Sales growth			-0.004*** (0.001)	-0.008* (0.005)
D&O ownership (%)			-0.000 (0.000)	0.000 (0.000)
CEO director present*Interlocked board			-0.006 (0.005)	0.000 (0.006)
Gindex				-0.000 (0.000)
Observations	78901	77978	68645	18786
Pseudo R-square	0.04	0.04	0.04	0.08

Table 10: Similarity in corporate and governance policies

The table examines whether the appointing firm and appointee firm have similar corporate and governance policies. The sample is based on approximately 1,000 appointments of CEO directors. The table presents median values for the policy variables. The first three columns show the values for the policies in event year -2, relative to the director appointment, for the appointing firm, the appointee firm, and the average size-matched firm, respectively. Matching firms are those firms with book assets that are +/-30% of the appointee firm's book assets. The last three columns show the values for the corporate policies averaged over event years +1 and +2. Statistical significance of a Wilcoxon signed ranked sum test of whether the appointee firm is significantly different from the appointee firm and whether the average matched firm is significantly different from the appointing firm for both before and after the appointment is reported immediately following the median values. Missing values for R&D and D&O ownership are not substituted with zero in this table. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Before			After		
	Appointing Firm	Appointee Firm	Average Matched Firm	Appointing Firm	Appointee Firm	Average Matched Firm
Financial & Investment Policies						
Book leverage	0.22	0.22	0.26 ***	0.24	0.24	0.26 ***
Market leverage	0.16	0.15	0.21 ***	0.16	0.15	0.21 ***
Short-term leverage	0.03	0.03 ***	0.05 ***	0.03	0.03 ***	0.05 ***
Cash holdings	0.05	0.05	0.09 ***	0.05	0.04 **	0.08 ***
Dividend payout	0.12	0.11 ***	0.12	0.12	0.10 ***	0.12
Dividend payer	1.00	1.00 ***	0.68 ***	1.00	1.00 ***	0.68 ***
Capital intensity	0.24	0.25	0.54 ***	0.24	0.24	0.52 ***
R&D expenditures	0.04	0.05	0.05	0.04	0.04	0.04
Capital expenditures	0.07	0.06	0.08 ***	0.06	0.06	0.07 ***
SG&A	0.21	0.21	0.23 **	0.22	0.21	0.23 ***
Sales growth	1.08	1.10 ***	1.19 ***	1.06	1.08 ***	1.11 ***
Return on assets	0.15	0.17 ***	0.14 ***	0.14	0.15 ***	0.12 ***
Tobin's Q	1.28	1.39 ***	1.55 ***	1.32	1.36 ***	1.54 **
Governance & Compensation Policies						
G index	10.00	10.00	9.24 ***	11.00	10.00	9.46 ***
Board size	11.00	10.00 ***	10.27 **	11.00	10.50 ***	10.38 ***
Proportion inside directors	0.20	0.20	0.27 ***	0.17	0.18 ***	0.27 ***
D&O ownership (%)	3.08	3.48	12.22 ***	2.93	3.33	11.38 ***
CEO salary (CompactD)	1.20	1.13 ***	1.19 ***	1.54	1.48	1.49 ***
CEO salary (Execucomp)	1.40	1.43 *	1.50 ***	1.69	1.67	1.74 ***
CEO total compensation	3.61	3.13 *	4.10	6.02	5.08 *	6.23
CEO dollar equity incentives	0.26	0.25 *	0.76 ***	0.37	0.39	1.09 ***
CEO share ownership (%)	0.14	0.17	2.17 ***	0.13	0.19 ***	2.00 ***

Table 11: Convergence in corporate and governance policies

The table examines whether the corporate and governance policies of the appointing firm and appointee firm converge after the appointment. The sample is based on approximately 1,000 appointments of CEO directors. For each variable, we calculate a relative distance measure as the ratio of the absolute difference between the policy of the appointing firm and the appointee firm divided by the average absolute difference between the appointing firm and the size-matched control group firms. Matching firms are those firms with book assets that are +/-30% of the appointee firm's book assets. Column 1 contains the median relative distance for the comparison in event year -2, and column 3 contains the median relative distance for the average of event years + 1 and +2 after the appointment. For each policy, we report in columns 2 and 4 the p-value of a non-parametric signed rank test indicating whether the relative distance is different from one. Column 5 reports the p-value of a Wilcoxon signed rank sum test which tests the null hypothesis of no difference in the closeness measure before and after the new director appointment. Missing values for R&D and D&O ownership are not substituted with zero in this table. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Before		After		Change
	relative distance	p-value	relative distance	p-value	p-value
<u>Financial & Investment Policy</u>					
Book leverage	0.79	0.00 ***	0.75	0.00 ***	0.04**
Market leverage	0.74	0.00 ***	0.75	0.00 ***	0.84
Short-term leverage	0.69	0.00 ***	0.66	0.00 ***	0.07*
Cash holdings	0.69	0.00 ***	0.66	0.00 ***	0.67
Dividend payout	0.72	0.00 ***	0.70	0.00 ***	0.46
Capital intensity	0.43	0.00 ***	0.44	0.00 ***	0.08*
R&D expenditures	0.64	0.00 ***	0.64	0.00 ***	0.32
Capital expenditures	0.64	0.00 ***	0.70	0.00 ***	0.02**
SG&A	0.77	0.00 ***	0.72	0.00 ***	0.29
Sales growth	0.61	0.00 ***	0.66	0.00 ***	0.05**
ROA	0.79	0.00 ***	0.80	0.00 ***	0.02**
Tobin's Q	0.73	0.00 ***	0.72	0.00 ***	0.17
<u>Governance & Compensation Policy</u>					
G index	0.73	0.00 ***	0.77	0.00 ***	0.24
Board size	0.76	0.00 ***	0.73	0.00 ***	0.87
Proportion of inside directors	0.71	0.00 ***	0.64	0.00 ***	0.03**
D&O ownership	0.41	0.00 ***	0.37	0.00 ***	0.14
CEO salary (CompactD)	0.73	0.00 ***	0.71	0.00 ***	0.93
CEO salary (Execucomp)	0.69	0.00 ***	0.76	0.00 ***	0.14
CEO total compensation	0.71	0.00 ***	0.65	0.00 ***	0.41
CEO dollar equity incentives	0.30	0.00 ***	0.32	0.00 ***	0.12
CEO share ownership	0.11	0.00 ***	0.09	0.00 ***	0.06*
CEO Age	0.73	0.00 ***	---	---	---
Headquarter distance	0.11	0.00 ***	---	---	---