



# Asking Directors About Their Dual Roles

Finance Working Paper N° 243/2009

March 2009

Renée Adams

University of Oxford ABFER, ECGI, and FIRN

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ECGI Working Paper Series in Finance

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## Abstract

This paper uses a large survey of directors to investigate variation in directors' dual roles as advisors and monitors of management. I examine whether the advisory role encourages information exchange between the CEO and the board, as suggested by Adams and Ferreira (2007). I also examine factors related to directors' perceptions of their roles. Amongst others the data suggests that a) directors vary in their perceptions of their roles and directors' roles affect their perceptions of information exchange, b) directors who agree more that they primarily monitor management perceive that they participate less in boardroom discussion than directors who agree that the CEO often asks them for advice, c) directors with a stronger personal relationship with management perceive their advisory role to be more important, and d) directors on boards with more decision-making power perceive their monitoring role to be less important relative to their advisory role. The results are robust to using Heckman selection techniques to address nonresponse bias. Overall, the data suggests that monitoring alone may not be sufficient for good governance.

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Keywords: Board of Directors

JEL Classifications: G30

Renée Adams  
Professor of Finance  
Saïd Business School, University of Oxford  
Park End Street  
Oxford, OX1 1HP, United Kingdom  
e-mail: [renee.adams@sbs.ox.ac.uk](mailto:renee.adams@sbs.ox.ac.uk)

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**Renée B. Adams<sup>†</sup>**

University of Queensland and ECGI

This version: March, 2009

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<sup>†</sup>UQ Business School, University of Queensland, Brisbane, Qld, 4072, Australia. E-mail: r.adams@business.uq.edu.au. Phone: +61-7-3365 7285.

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## Abstract

This paper uses a large survey of directors to investigate variation in directors' dual roles as advisors and monitors of management. I examine whether the advisory role encourages information exchange between the CEO and the board, as suggested by Adams and Ferreira (2007). I also examine factors related to directors' perceptions of their roles. Amongst others the data suggests that a) directors vary in their perceptions of their roles and directors' roles affect their perceptions of information exchange, b) directors who agree more that they primarily monitor management perceive that they participate less in boardroom discussion than directors who agree that the CEO often asks them for advice, c) directors with a stronger personal relationship with management perceive their advisory role to be more important, and d) directors on boards with more decision-making power perceive their monitoring role to be less important relative to their advisory role. The results are robust to using Heckman selection techniques to address nonresponse bias. Overall, the data suggests that monitoring alone may not be sufficient for good governance.

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*Getting information requires a trusting relationship with management.* (Holmstrom, 2005, p. 711)

## 1. Introduction

When asked, directors often describe that they have a role in setting strategy (e.g. Mace, 1971; Lorsch and MacIver, 1989; Demb and Neubauer, 1992). In fact, in Demb and Neubauer's survey more directors reported that they are involved in setting strategy than in oversight of management. However, this role did not receive much formal recognition until recently. For example, the 1994 *Corporate Director's Guidebook* of the American Bar Association defines directors' duties in terms of oversight (Committee on Corporate Laws, 1994). The 2004 *Corporate Directors' Guidebook* defines oversight more narrowly as monitoring of the corporation's business and affairs, and it explicitly recognizes decision-making as one of the two basic functions of the board (Committee on Corporate Laws, 2004, p. 1). It suggests that the reason effective involvement of directors in decision-making is important is because the advice and counsel of directors can contribute to the corporation's success.<sup>1</sup>

Coincidentally, the academic literature has become more interested in the board's role in setting strategy.<sup>2</sup> Adams and Ferreira (2007), Harris and Raviv (2008), Raheja (2005) and Song and Thakor (2006) provide theoretical models of the board's influence over strategy. Although the focus of each paper is different, they all emphasize that directors require information in order to play a more active role in decision-making. In Adams and Ferreira (2007) and Song and Thakor (2006), the board has an advisory role which depends critically on information the CEO provides. Without this advisory role, the CEO has no incentive to share information that is not publicly available with the board. In Adams and Ferreira's model, the value of the board's advice improves when the CEO shares information with it. However, because an informed board also monitors him more intensively, the CEO may be reluctant to share

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<sup>1</sup>The courts have also acknowledged a separate decision-making function by finding directors liable for a breach of their duty of care in the decision-making as opposed to the oversight area in some cases (Varallo and Dreisbach, 1996, p. 34).

<sup>2</sup>See Adams, Hermalin and Weisbach (2009) for an overview of this literature.

information with a board that is too independent. In this case, less independent or “friendly” boards may benefit shareholders because the costs of reduced monitoring may be more than outweighed by the benefits of more informed board decision-making.

Recent empirical literature finds evidence consistent with the ideas that boards have a role in setting strategy and that information costs may influence board effectiveness. Boone, Fields, Karpoff and Raheja (2007), Coles, Daniel and Naveen (2008), Lehn, Patro and Zhao (2008) and Linck, Netter and Yang (2008) examine the board’s role in setting strategy by examining whether board structure varies with proxies for firms’ advising requirements. These papers all find, for example, that board size is positively related to firm size. Because larger firms arguably have more advising requirements, this suggests that their boards add members to satisfy their advising needs. Reinforcing the view that advice may be important are the findings in Coles, Daniel and Naveen (2008) and Graham, Hazarika and Narasimhan (2008) that board size is positively related to proxies for firm value in complex firms.

Duchin, Matsusaka and Ozbas (2009) and Ferreira, Ferreira and Raposa (2009) provide evidence consistent with the idea that information costs affect the functioning of the board. Using analyst forecasts to proxy for information costs, Duchin, Matsusaka and Ozbas find that performance worsens when outsiders are added to the board and information costs are high. Using the probability of informed trading as a proxy for stock price informativeness, Ferreira, Ferreira and Raposa find that boards are larger when the stock market is less informative.

Schmidt (2008) provides evidence both for the importance of information exchange and the strategic role of boards. Based on Adams and Ferreira (2007), he predicts that information exchange between the CEO and the board should be greater on boards with more social ties to the CEO. This should increase firm value when board advice is important. He tests this hypothesis by examining takeover returns. He finds that takeover returns are higher in the presence of social ties when advisory needs are high, as proxied by an index which measures, for example, whether acquisitions are in different industries or involve more diversified firms.

Because it is difficult to measure boards’ roles and information exchange, all of these papers rely on clever uses of publicly-available data to examine these issues. The goal of this paper

is to provide complementary evidence on boards' roles by examining directors' perceptions, as measured by survey data. In particular, I am interested in examining the idea put forth in Adams and Ferreira (2007) that boards have a dual role because the advisory role encourages valuable information exchange between the CEO and the board.<sup>3</sup> I am also interested in examining factors that are related to directors' perceptions of their roles. The literature cited above suggests that observable measures of board structure and director characteristics should be related to their roles. For example, board size should be related to advising. However, the evidence on this is indirect. By examining whether these factors are related to directors' perceptions of their roles, I can provide more direct evidence on the theory.

I can also use the survey to examine the importance of two factors that the literature argues should be related to directors' roles, but that are not so easily measurable using publicly-available data. The first, proposed by Adams and Ferreira (2007), is friendship ties. The second is decision-making power. Holmstrom (2005) suggests that the balance of power between the CEO and directors can affect communication. He argues that the board needs to gain the trust of executives to overcome communication problems and that excessive board intervention will destroy this trust. Adams and Ferreira (2007) provide a formal version of a similar argument. In their model, the CEO will not communicate with a board that monitors too much. In Harris and Raviv (2008), the board is more dependent on insiders' information when it is in control. All three of these papers suggest that the balance of power will affect the role directors play. When the board has more control over decision-making, directors may monitor the CEO less to encourage communication.

Although survey data is rarely used in the finance literature, several recent studies using surveys of CFOs (Graham and Harvey, 2001 and 2007) and surveys of managers (Bloom and Van Reenen, 2007) highlight that surveys can be a useful tool to understand issues of interest to financial economists. Graham and Harvey (2001) survey a large sample of CFOs on cost of capital, capital budgeting techniques and capital structure. They document that large and

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<sup>3</sup>When the board has an advisory role, Adams and Ferreira (2007) argue that monitoring is improved as a result of enhanced communication between the CEO and the board. This is why the board's advisory role should not be delegated to management consultants, for example.



small firms vary considerably in their project evaluation practices. Their survey data help illuminate areas where finance theory and practice appear to coincide, but also where they diverge significantly.

Bloom and Van Reenen use an evaluation tool developed by a consultancy to obtain data on management practices in firms from different countries. They document significant variation in management practices across firms. Poor management practices appear to be more prevalent in firms that lack competition and family firms that are involved in primogeniture. In their setting, survey data help measure factors that are associated with productivity differences and that cannot be measured using conventional data.

In the context of boards, survey data may be useful both to gain interesting insights into how boards work, but also to address problems of measurement. For example, recent literature argues that regulatory definitions of director independence are flawed because they do not capture social relations between directors and the CEO that may impair a director's judgement (Cohen, Frazzini and Malloy, 2009; Hwang and Kim, 2008). However, even existing measures of social relationships need not fully capture social ties between CEOs and directors. For example, a director and the CEO may be friends primarily because they share a passion for food and wine, but it would be difficult to classify such a director as socially dependent. To the extent that respondents reply truthfully, a survey may be better able to uncover such social ties. A survey may also help measure variables that can only be indirectly measured using conventional data, such as the role of a director. Finally, in order to relate board characteristics to firm outcomes, most of the empirical literature on boards examines board level characteristics, e.g. the proportion of independent directors, board size, the number of board meetings, the proportion of "busy" directors, etc.. Surveys can be useful to gain complementary insights into the role of individual director characteristics. Of course, survey data also has its problems in that it measures beliefs and not necessarily actions, thus survey evidence must be interpreted with care. I return to this issue later in the paper.

To gather my data, I surveyed the universe of resident directors and CEOs (1,796 individuals) of publicly-traded firms in Sweden in 2005. Sweden is a useful laboratory for such a survey

for several reasons. First, unlike in many other countries, it is straightforward to identify and obtain characteristics of the entire population of directors of publicly-traded corporations. This enables me to use Heckman selection techniques to address the possibility of nonresponse bias. Surveying all directors of publicly-traded firms also enables me to address concerns about sample selection bias. Second, the Swedish Statistics Bureau, Statistics Sweden, regularly surveys Swedes on a wide variety of issues and maintains databases of detailed information on individuals, including their income. This suggests that Swedish directors might be more willing to provide information about themselves and respond to a survey than directors in, for example, the US.<sup>4</sup> Third, Swedish board structure has features that closely resemble those of boards in sole board countries as in the US and UK, but it also shares features with dual board structures as in Germany, for example, the presence of representatives of major shareholders on the board. This means that the results can be of interest to scholars of both the sole and dual board systems.

My survey instrument contained questions about information exchange, directors' relationships with management and decision-making power and was linked to director characteristics and firm accounting data. In all, I received responses from 628 individuals (a response rate of 36.6% from directors and 29.7% percent from CEOs) representing all but 36 (12.59%) of all publicly-traded firms in 2005. The response rate is high, as compared to other surveys in the finance literature,<sup>5</sup> which also helps to limit concerns about sample selection and nonresponse bias.

The data suggests that directors vary in their perceptions of their roles, information exchange, decision-making power and their relationship with management. Perhaps surprisingly, on average directors agree that they receive sufficient information from management. Consistent with Demb and Neubauer (1992), on average directors agree more that they provide advice to

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<sup>4</sup>For example, Jonnergård, Kärreman and Svensson (2003) report a response rate of 66% in a survey of directors and CEOs of 97 Swedish A-list publicly-traded firms in 1994 and a response rate of 50.8% in a survey of directors and CEOs of 92 A-list Swedish publicly-traded firms in 1999. Since A-list firms are the largest firms, these numbers suggest that Swedish directors are generally quite willing to respond to surveys.

<sup>5</sup>In comparison, Graham and Harvey (2001) had a response rate of 9% in their survey of CFOs of 4,440 firms.

the CEO and input into strategic decision-making than evaluate management. Moreover, directors' roles affect their perceptions of their involvement in decision-making. Directors who agree more that they primarily monitor management feel that they participate less in boardroom discussions. Directors who feel that they often provide advice to the CEO perceive themselves to be better informed by management and also perceive themselves to be more active in board discussions. Directors with more board seats and directors who are friends with the CEO perceive their role to be more advisory in nature. Consistent with recent theoretical literature (e.g. Adams and Ferreira, 2007; Song and Thakor, 2007), the data suggests that boards that only monitor may not be engaged enough to be effective. Contrary to the common perception in the literature, personal ties between CEOs and directors may add value, possibly because they help overcome the problem of gaining the trust of executives that Holmstrom (2005) identifies in the quote above.

This paper is structured as follows. In Section 2, I provide some institutional details about board structure in Sweden. Section 3 discusses the survey and the data. I analyze how directors' roles affect information exchange in Section 4. I examine variation in directors' roles in Section 5. I discuss problems with survey data and address potential sample selection bias in Section 6. Section 7 concludes.

## **2. Board structure in Sweden**

The mandate of Swedish boards closely resembles those of boards in the US and UK. According to the Swedish Code of Corporate Governance (Code Group, 2005) the task of the board is to “manage the company’s affairs in such a way as to satisfy the owners that their interests in a good long-term return on capital are being met in the best possible way.” The steps directors can take to ensure they achieve their goal is very similar to lists of duties described by various professional organizations in the US (see e.g. the Committee on Corporate Laws’ 2004 *Corporate Director’s Guidebook*). Amongst others, directors must “pay attention to establishing the overall goals for the company and deciding the company’s strategy for achieving these goals”

and “evaluate the company’s operative management on an ongoing basis and, if necessary, appoint or dismiss the managing director” (Code Group, 2005, p. 25). As in the US, the balance of power between the board and the CEO may vary across firms. For example, the Swedish Governance Code (p. 15) states that “The board may also decide on matters that are part of the day-to-day management but must not intervene in the day-to-day operations to such an extent that the managing director in reality may no longer be considered to have that position.” Consistent with the description by Holmstrom (2005) of the management of Coca-Cola and with theoretical arguments about unitary boards in Adams and Ferreira (2007) and Song and Thakor (2007), this description suggests that excessive intervention by the board may be detrimental.

The structure of Swedish boards is similar to those in the US and UK, with some exceptions.<sup>6</sup> Unlike in the US or UK, no more than one person on a Swedish board can be a senior manager, typically the CEO. Also, boards may appoint alternate board members who can participate in the operations of the board to the extent the board wishes (see e.g. Ashurst, LLP, 2009). Unlike in the US, the law requires that the Chairman and CEO positions are separated. As in the US, Swedish boards have a nominating committee but this committee must have a majority of members who are not board members. No member of management may be represented on the nominating committee, nor should a director chair the nominating committee.<sup>7</sup> Because Swedish ownership structure is quite concentrated, it is common for large shareholders to be represented on the board. The Swedish Governance Code requires that a majority of directors are independent from management and at least two directors are independent of the major shareholder (a shareholder with more than 10% ownership). However, because of the complicated nature of Swedish ownership structure,<sup>8</sup> it is much more difficult to determine who is an independent director than in the US or UK. For example, if directors have substantial business

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<sup>6</sup>Because of co-determination, employees have the right to appoint two representatives to the board of directors in companies with at least 25 employees and three representatives in companies with over 1000 employees. However, employee representatives may never be in the majority on the board.

<sup>7</sup>A typical nominating committee may consist of the chairman of the board and several representatives of major shareholders (Unger, 2006).

<sup>8</sup>La Porta, Lopez-de-Silanes and Shleifer (1999) provide a brief discussion of Swedish ownership structure and illustrate the complexity of ownership using the famous example of ABB.

dealings with an “associated enterprise”, they are no longer independent, but it is difficult both to determine whether or not an enterprise is “associated” on the basis of its ownership structure and to determine whether or not a director has business dealings with the “associated enterprise”. Because formal independence need not imply that directors are independent in the sense the governance literature cares about anyhow, I circumvent this measurement problem by using the survey to help determine which directors might not be considered “independent in spirit” because of their social relationship with management.

### **3. Data**

To examine the relationship between directors’ roles and information exchange and factors that plausibly affect directors’ roles, I use a simple survey to measure roles, information exchange, social ties of directors and decision-making power. I then link this data to firm, board and director characteristics that I obtain from other sources. I describe the survey I sent to directors in Section 3.1. Although I focus primarily on director responses, I also survey CEOs to see if they generally agree with directors. I analyze CEO responses in Section 6.2. I describe the sample and remaining data in Section 3.2.

#### **3.1. The survey**

There are virtually no surveys of directors in the finance literature, however, the management and organizational literature contains numerous surveys of top management teams. I use two papers from this literature, Simons, Pelled and Smith (1999) and Westphal and Milton (2000), as starting points for designing my survey. While both of these papers focus specifically on top management team diversity, their approaches are more broadly applicable and seem suitable for my purposes.

### 3.1.1. Information exchange

Simons, Pelled and Smith (1999) survey top management team members in 57 electronics companies to assess the relationship between diversity and debate. They asked respondents to consider a recent strategic decision that his or her team made and to assess the level of debate concerning that decision using four statements that were ranked on a Likert-type scale. Because research in management suggests that team behavior is relatively stable over time, they did not specify a particular decision in order to capture general patterns of team interaction.

To capture information exchange between directors and the CEO, I followed their approach of asking directors to comment on a recent strategic decision using a Likert scale from 1 (strongly disagree) to 6 (strongly agree), but I used statements that were more appropriate for my purpose. For example, I asked directors whether they felt they received sufficient information. I also asked two questions designed to measure whether that information was information that enabled the director to better carry out his job, i.e. was useful information for decision-making. The 2004 *Corporate Directors Guidebook* (Committee on Corporate Laws, 2004, p.7) stresses that participation is key to being a director. Thus, I asked both whether the director had an opinion concerning the decision to be made and whether he participated in the discussion concerning that decision. I also tried to assess the quality of the director's participation more generally by asking whether other board members appeared to value the director's participation. To measure information exchange and director involvement, the specific statements I asked the directors to rank their agreement to were the following (see Table 2 for exact wording and ordering of questions):

- I had a strong view about what the correct decision should be.
- I voiced my views in the discussion.
- I received sufficient information from management concerning the decision to be made.
- I feel that other board members value my inputs in board discussions.
- I feel that my inputs in formulating strategy are valued by management.

(Insert Table 2 about here)

### **3.1.2. The role of the board**

While the board may have more than two roles, I focus on the two most commonly described in the theoretical literature, monitoring and advising. I consider the board's monitoring role to consist primarily in evaluating management because it is the monitoring function that is emphasized the most in the governance literature (see e.g. Hermalin and Weisbach, 1998 and 2003). To determine how directors themselves perceive their roles, I asked them to rank the extent of their agreement with the following two statements:

- The CEO often asks me to provide advice and counsel.
- I spend more time evaluating management than providing input into strategic decision-making.

### **3.1.3. Influence over decision-making**

Westphal and Milton (2000) surveyed outside directors of Forbes 500 firms to examine the influence of minority directors on strategic decision-making of the board. They measure perceived influence by asking directors to what extent they (and the board) influence strategic decision-making and conduct several tests that suggest that reported influence is a fairly good measure of actual influence. Because they do not provide the exact questions of their survey, I cannot replicate their approach. Instead, I ask directors to rank their agreement to statements that are similar in nature, namely:

- In our company, management usually makes final decisions on strategic issues.
- In our company, the board usually makes final decisions on strategic issues.
- In our company, the major shareholder usually makes final decisions on strategic issues.

### 3.1.4. Independence

In general, it is difficult to measure director independence using publicly-available data. As described above, it is especially difficult to measure independence in Sweden. One way to obtain this information is to ask directors whether they are independent. However, this is complicated by the fact that there are different definitions of independence. Directors may be independent with respect to management but need not be independent with respect to the major shareholder and vice versa, which makes formulating the question more complicated. In addition, formal definitions of independence are often criticized because they do not rule out personal relationships between directors and the CEO that may compromise their independence of thought. Thus, instead of asking directors about their independence, I try to assess whether they have such personal connections, and thus should *not* be considered completely independent by asking them to rank their agreement with the following statement: “I am friends with the CEO.” To assess their independence from the major shareholder and their personal relationship with other board members, I also ask them to consider the following two statements: “I am friends with the major shareholder” and “I am friends with most outside board members.”<sup>9</sup>

## 3.2. Sample description

I used MM Partner, a database containing names of board members and CEOs of all public and private firms in Sweden to identify the set of directors, CEOs and Vice-CEOs (the equivalent of Presidents in a US firm) of all publicly-traded firms in Sweden in 2005. In 2005, there were 286 publicly-traded firms listed on the OMX (A&O list) and the NGM (Nordic Growth Market). Including Vice-CEOs, these firms had 424 resident CEOs and 1,372 resident nonexecutive board members, including alternate directors.<sup>10</sup> I surveyed all board members and CEOs, including alternates. Since some board members sat on multiple publicly-traded boards, I asked them to

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<sup>9</sup>According to Dravis (2007), Delaware courts have increasingly been asked to consider cases in which director independence was challenged on the grounds that social relationships between directors and executives impaired independence of judgement.

<sup>10</sup>I classify both CEOs and Vice-CEOs under the heading “CEOs”, because the distinction between the roles is not always clear. For example, some firms only have a Vice-CEO. However, I also examine the impact of Vice-CEOs separately when I analyze CEO responses.



respond to the survey for only one of these directorships. I chose this directorship at random from the set of their publicly-traded directorships. I also surveyed CEOs only in their capacity as CEOs, not as board members of other firms. The entire survey contained a total of 86 questions to board members and 82 to CEOs, of which the data in this paper comprise a subset. To increase the response rate, the survey was mailed to the home addresses of each individual. In addition, I used the help of Statistics Sweden to guarantee that the responses were anonymous. Recipients of the survey mailed their responses to Statistics Sweden, which matched the responses to data on personal characteristics on the basis of personal identifying numbers, but then removed all personal identifying information.

To ensure that the Swedish questions reflected the meaning of the English questions, I had the English survey translated into Swedish and then reverse translated into English. The first survey was sent out on July 14, 2006. I followed it up with two reminders. The last survey response was received on November 11, 2006. In total, I received 502 responses (36.6%) from board members and 126 responses (29.7%) from CEOs.<sup>11</sup> I received at least one response from directors and CEOs of all but 36 (12.59%) of the 286 firms. The number of responses per firm with respondents varies from 1 to 8. Most respondents filled out the entire survey. Thus, I have complete surveys for 409 board members and 107 CEOs. The number of observations for each question in this paper varies from 125 to 126 for the CEOs and from 485 to 500 for the board members. Although the response rate is good compared to other surveys of top management teams,<sup>12</sup> a concern is that the responses may be biased because of the length of the survey. For example, it is possible that directors with more board seats, who may be busier, may not have responded. I address this concern by applying Heckman selection models to individual director responses in section 6.1.

From MM Partner, I obtain information on leverage and the total number of board seats each director has, board size, which I define to be the total number of directors excluding alternates, director age and tenure on the board for the entire population of directors and

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<sup>11</sup>32 of the CEO respondents were Vice-CEOs, the rest were CEOs.

<sup>12</sup>For example, Simons, Pelled and Smith (1999) report a response rate of 6%.

CEOs. From Osiris, I obtain information on firm size, as measured by the book value of assets and operating performance, as measured by return on assets (ROA). From Statistics Sweden I obtain a two-digit industry classification for the sample firms as well as directors' primary employers in 2004. I also obtain information on the wages directors received from their primary employers in 2004, which I use in my Heckman selection regressions. Accounting information and data on industry and directors' employers is not available for all firms in the sample, thus the number of observations is reduced whenever I include this information in the regressions.

### 3.3. Summary statistics

Of the 1,372 directors of publicly-traded firms, 219 (15.96%) were alternate directors. Using data from Statistics Sweden concerning directors' employers in 2004, I was able to categorize 1,291 directors according to whether their employer was from the same industry as the firm on whose board they sit. I define the dummy variable *Same Industry* to be one if the director's employer has the same two-digit industry code as the firm. 538 directors (41.67%) of directors are from the same industry.

Table 1A shows summary statistics for the sample of directors who responded to the survey and those who did not. Table 1B shows summary statistics for firms with at least one respondent and firms with no respondent. On average respondents have 1.36 board seats with a maximum of 7. Only 13.15% of responding directors have more than one directorship in another publicly-traded firm. This is only slightly lower than numbers reported for American directors in comprehensive samples of both large and small firms. For example, in Ferris, Jagannathan and Pritchard's (2003) sample only 15.61% of directors hold more than one directorship and the average number of directorships per outside director is 1.89. Board size is also similar to numbers reported for firms in the US. The average is 8 as compared to 7.5 directors reported in Linck, Netter and Yang (2008). Although directors with more board seats are typically considered very busy and might have been too time constrained to respond to the survey, directors who did not respond had roughly the same average number of board seats

(1.24) as those responding (1.36), probably because few directors hold multiple directorships. Not surprisingly, alternate directors were less likely to respond to the survey, as were directors in the same industry. Although the differences between respondents and nonrespondents do not appear economically large, it is possible that small differences between respondents and nonrespondents could bias the results. I address this issue in Section 6.1. Also not surprisingly, firms with larger boards were more likely to have at least one respondent.<sup>13</sup> Of the firms with respondents, 77.27% have more than 2 respondents and 46.4% have a CEO who responded.

(Insert Table 1 about here)

Table 2 shows summary statistics for all the survey items as well as variable names for the survey items. The statements appear in Table 2 in the order they appeared on the survey. The item number indicates the statement number in the entire survey. Panel A contains summary statistics for the board members, Panel B contains summary statistics for a variation of the director survey that I sent to CEOs. For each question in panel A the minimum response is 1 and the maximum is 6. Thus, what is noticeable from the summary statistics is that there is variation in the responses. Perhaps surprisingly, on average directors agree that they receive sufficient information from management (mean of 4.8) and they do not consider their primary role to consist in evaluating management (the average response is 2.5). Instead, directors also consider their role to be advisory in nature (mean response of 3.96). On average, directors perceive the board to be the final decision-maker (mean response of 4.95), next come the large shareholders (mean response of 3.31) and last the CEO (2.92). Finally, not all directors agree strongly that they are friends with the CEO (mean response 3.46) or the major shareholder (mean response 3.34).

Schmidt (2008) uses social ties, such as common organizational memberships and shared alma maters, to proxy for friendship ties. Using data from Statistics Sweden, I can determine whether directors attended the same university as the firm's CEO for 187 directors.<sup>14</sup> The

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<sup>13</sup>All differences between characteristics of survey respondents and nonrespondents are significant at greater than the 1% level, except for Alternate (significant at the 10% level) and Tenure and Same Industry (not significantly different). The differences between firm characteristics with and without respondents are significant for Alternate and Same Industry (at the 1% level) and Board size and Lagged ROA (at the 5% level).

<sup>14</sup>I examined only alma maters of CEOs, not Vice-CEOs. 47 Directors attended the same university as the

correlation between *Friends With CEO* and a dummy indicating a shared alma mater with the CEO is 0.149 which is significant at the 5% level. Although I do not have data on common organizational memberships, directors from the same industry as the CEO may be more likely to be members of the same clubs, thus *Same Industry* can be used as a proxy for social ties. The correlation between *Friends With CEO* and *Same Industry* is 0.134 which is significant at greater than the 1% level. These correlations suggest both that directors' responses concerning their relationships with the CEO are meaningful, but also that factors other than social ties may play a role in the formation of friendships.

The CEO responses display similar patterns as the director responses, although they rank decision-making authority differently: CEOs perceive the final decision maker to be themselves first, then the board and then the major shareholder.

## 4. Information exchange

In this section, I test the hypothesis that the advisory role encourages information exchange between the CEO and the board. I first examine the relationship between *Sufficient Information* and the survey items describing directors' roles and controls. I then examine whether directors' perceptions of being sufficiently informed appear to be meaningful by examining whether they are related to *Opinion*, *Voice Views*, *Value My Inputs* and *CEO Values My Inputs*. As control variables I use director, board and firm characteristics that plausibly affect the interaction between the CEO and directors. For example, directors with multiple board appointments may have more experience and be more willing to voice their views in boardroom discussions. On the other hand, they may be spreading themselves too thin (e.g. Ferris, Jagannathan and Pritchard, 2003). If they are uninformed as a result, they may participate less in discussions. Similar arguments could be made about *Director Age* and *Director Tenure*. Since alternate directors should have less influence, I expect them to interact less with the CEO. Thus, I also include a dummy variable indicating alternate status in the regressions. Because directors from

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CEO of the firm whose board they sit on.

different industries may require more information than directors from the same industry, they may have different perceptions of their interaction with the CEO. Thus, I also control for *Same Industry*.

As board and firm-level controls I include *Board Size*,  $\ln(\text{Assets})$  as a proxy for firm size and one-digit industry dummies.<sup>15</sup> *Board Size* may affect CEO-director interaction if, as Lipton and Lorsch (1992) argue, large boards are less likely to hold candid discussions about performance or, as Jensen (1993) argues, large boards are more easily controlled by the CEO (see also the discussion in Bainbridge, 2002). CEO-director interaction may be different in large firms because they may be more complex (e.g. Coles, Daniel and Naveen, 2008). Since the number of observations is reduced when I include industry and firm-level controls, I show some specifications both with and without these controls.

Because the individual level survey responses are ordinal, I analyze them using ordered logit analysis. Results of OLS regressions are qualitatively similar. Because the average number of respondents per firm is 2.5, which could lead responses across directors to be correlated, I correct all standard errors for group correlation at the firm level and for potential heteroskedasticity.

In Column I of Table 3, I regress *Sufficient Information* on the survey items describing directors' roles, *Number of Directorships*, *Director Age*, *Director Tenure*, *Alternate Status* and *Board Size*. In Column II, I also control for *Same Industry*,  $\ln(\text{Assets})$  and industry. Although the answers to the questions concerning directors' roles, "The CEO often asks me to provide advice and counsel" (*Advisory Role*) and "I spend more time evaluating management performance than providing input into strategic decision-making" (*Monitoring Role*) are negatively correlated (correlation of -0.1071 which is significant at the 1.69% level), the correlation is not too high in magnitude. Thus, although directors appear to perceive some substitution between providing advice and evaluating management, there is little reason to be concerned about multicollinearity between these two items.<sup>16</sup> This is also consistent with the idea that directors may perform a dual role on the board acting as both monitors and advisors to management.

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<sup>15</sup>Because there are very few firms in some two-digit industries, I use one-digit industry codes to control for industry.

<sup>16</sup>The regressions are qualitatively similar if I include only one role at a time.

(Insert Table 3 about here)

The coefficient on *Advisory Role* is positive and highly significant across Columns I and II.  $\ln(\text{Assets})$  and *Same Industry* are also significantly positively correlated with *Sufficient Information*. This is consistent with the idea that CEOs communicate more with directors who provide advice and directors in complex firms. It is also possible that CEOs in large firms provide more information because they are subject to greater scrutiny by the market.

It is plausible that directors from the same industry always feel more informed because they are better able to evaluate the information the CEO provides. This raises the concern that *Sufficient Information* simply reflects directors' perceptions without corresponding to actual CEO-director interaction. Since there is little reason to expect directors from the same industry to vary in their perceptions according to their role, except if their interaction with the CEO changes, as a robustness check I include the interactions of *Same Industry* with *Advisory Role* and *Monitoring Role* in the regression in Column III. The coefficient on *Advisory Role*\**Same Industry* is insignificant but the coefficient on *Monitoring Role*\**Same Industry* is significantly negative. Thus, even when they are in the same industry, directors feel less informed when they have a monitoring role. This is at least suggestive that the survey responses concerning *Sufficient Information* are not systematically biased, but reflect actual CEO-director interaction.

To further investigate whether the survey responses are meaningful, in Columns IV-VII, I examine whether *Sufficient Information* is correlated with *Opinion*, *Voice Views*, *Value My Inputs* and *CEO Values My Inputs* using the specification in Column II. If directors receive information they do not otherwise have from the CEO, I expect this to have an impact on their participation in decision-making and the quality of their contribution. Consistent with expectations, *Sufficient Information* is positively correlated with all four outcomes.

Because directors with an advisory role appear to feel more informed, the results from Columns IV-VII suggest that these directors should participate more in decision-making and perceive their contribution to be of higher quality. I examine this by regressing *Opinion*, *Voice Views*, *Value My Inputs* and *CEO Values My Inputs* on *Advisory Role* and *Monitoring Role*

and the same controls as in Column II. The results in Columns VIII-XI indicate that directors who perceive their advisory role to be greater are more likely to have an opinion and to voice their views in decision-making and to feel that their inputs are valued. In contrast, directors who perceive their monitoring role to be stronger are less likely to participate and feel that their inputs are valued less by the CEO.

The coefficients on some of the control variables appear plausible, which increases my confidence that directors' perceptions reflect actual CEO-director interaction. Alternate directors participate less and feel that their contribution is less valued, as should be the case. Director with more board seats and longer tenure are more likely to participate in decision-making, which is consistent with the idea that they have more experience. Directors on larger boards are less likely to feel that their input is valued, which makes sense given that it is more difficult to have an impact on decision-making in a larger group.

Overall, the results in this Section provide new evidence suggesting that the advisory role may serve an important function on the board by encouraging information-sharing between the CEO and directors and better participation of directors in decision-making. They also highlight that directors who perceive their monitoring role to be stronger perceive that they contribute less to decision-making. It may be necessary to preserve a certain distance from decision-making in order to evaluate the CEO. However, it is not clear that boards would function better if all directors maintained this distance. If participation in decision-making is essential to good governance, as the 2004 *Corporate Directors Guidebook* (Committee on Corporate Laws, 2004, p.7) stresses, then overemphasizing directors' monitoring role may not be in the best interests of shareholders.

## **5. Factors affecting directors' perceptions of their roles**

The previous Section suggested quite strongly that there is variation in how directors perceive their roles. Thus, in this Section I examine factors that the literature suggests should be related to directors' roles. I examine the effect of observable factors, as well as the role of friendship

ties and decision-making power.

Boone, Fields, Karpoff and Raheja (2007), Coles, Daniel and Naveen (2008), Lehn, Patro and Zhao (2008) and Linck, Netter and Yang (2008) all argue that firm size should be related to boards' advising requirements, which explains why firm size is positively related to board size. Thus, I examine both the effect of firm size and board size on directors' perceptions of their advisory role. If directors are more experienced, they may be more likely to have an advisory role. I proxy experience with *Number of Directorships*, *Director Age*, *Director Tenure* and *Alternate Status*. Directors from different industries than the firm are more likely to be able to provide the CEO with information he cannot otherwise get, thus I also examine the effect of *Same Industry*.

Adams and Ferreira (2007) argue that boards may optimally be friendlier towards the CEO when they have an advisory role. Schmidt (2008) finds evidence that social ties are negatively correlated with firms' monitoring needs. Thus, I expect that directors who agree more strongly that they are friends with the CEO, and may thus be considered less independent, are less likely to agree that they have a monitoring role and more likely to agree that they have an advisory role. I also expect decision-making power to be correlated with directors' perceptions of their roles, as suggested by Holmstrom (2005), Adams and Ferreira (2007) and Harris and Raviv (2008).

(Insert Table 4 about here)

For the sake of exposition, I examine the role of observable factors and friendship ties first, then I examine the role of decision-making power. In Table 4 I examine the relationship between *Advisory Role* and observable factors and friendship ties. I replicate these regressions with *Monitoring Role* as the dependent variable in Table 5. In Tables 6 and 7 I also examine the role of decision-making power. As in Table 3, I use ordered logit analysis and correct all standard errors for potential heteroskedasticity and group correlation at the firm level.

The specification in Column I of Table 4 includes *Friends With CEO*, *Number of Directorships*, *Director Age*, *Director Tenure*, *Alternate Status* and *Board Size*. *Friends With CEO* is significantly positively correlated with *Advisory Role*, as is *Number of Directorships*. *Alternate*



*Status* is negatively correlated with *Advisory Role* which is not surprising given that alternate directors should be less involved in board decision-making. *Board Size* is also negatively correlated with *Advisory Role*. While it is plausible that in a larger group any individual director is less likely to be asked for advice, previous literature argues that large boards have a greater advisory role in complex firms, as proxied, for example, by firm size. Thus I examine whether the effect of *Board Size* is attenuated by firm size by including the interaction between *Board Size* and  $\ln(\text{Assets})$ , as well as  $\ln(\text{Assets})$  and *Same Industry* in the specification in Column II. The coefficient on the interaction term is positive, which indicates that an individual director perceives the importance of his advisory role to be greater if he is on a large board in a large firm, consistent with the arguments in the literature cited above. However, controlling for *Board Size*, directors appear to perceive the importance of their advisory role to be lower in large firms. If large firms are more established, it is possible that individual directors perceive that their advisory role is less important. More established firms may have certain ways of doing things and a longer history of decision-making to draw inferences from. Thus, CEOs of such firms may require less advice. Unfortunately, I was able to obtain data on firm age for less than half of the sample. For this subsample, firm age is highly correlated with firm size (correlation of 0.54), which suggests that it may be difficult to disentangle the effect of complexity from maturity for firm size. Thus, in Column III I include an alternate measure of complexity that Coles, Daniel and Naveen (2008) and Linck, Netter and Yang (2008) argue is related to boards' advising needs, namely *Leverage*.<sup>17</sup> I also include one period *Lagged ROA*, because firms that performed well in the past may have fewer advising needs. *Lagged ROA* is insignificant, but, consistent with the complexity argument, *Leverage* is significantly positively correlated with *Advisory Role*.

Across Columns II and II, *Same Industry* is significantly negatively correlated with *Advisory Role*. Thus, directors who are from a different industry perceive the importance of their advisory

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<sup>17</sup>Boone, Fields, Karpoff and Raheja (2007), Coles, Daniel and Naveen (2008), Lehn, Patro and Zhao (2008) and Linck, Netter and Yang (2008) also examined diversification as a measure of boards' advising requirements. In my sample diversification, as proxied by the number of segments, is highly correlated with firm size (correlation of 0.6188), thus I do not examine diversification separately.

role to be greater. This is consistent with Schmidt's (2008) argument that advisory needs are higher when directors possess information that the CEO does not have.

As robustness checks, I include one-digit industry dummies in Column IV and other measures of director friendliness, *Friends With Major Shareholder* and *Friends With Outsiders*, in Column V. I include the latter, because it is possible, for example, that the coefficient on *Friends With CEO* is spuriously caused by director overconfidence. Overconfident directors may rank both their importance in terms of advice and the strength of their relationship with the CEO higher than other directors. Since these directors may also rank their relationship with the major shareholder or other directors higher than other directors, I can differentiate the relative effect of their relationship with the CEO by controlling for their assessments of these other relationships.

Some variables that were previously significant are no longer significant in Columns IV and V, e.g. *Number of Directorships*, *Leverage* and *Same Industry*. This is primarily due to the loss of observations once I include firm level controls, as the signs of the coefficients on these variables are consistent across all specifications. *Same Industry* may also be correlated with the industry dummies. In contrast, *Friends With CEO* is significantly correlated (at greater than the 1% level) with *Advisory Role* across all specifications. Moreover, the effect of *Friends With CEO* is different from *Friends With Major Shareholder* (insignificant) and *Friends With Outsiders* (significantly negative). This suggests that the coefficient on *Friends With CEO* is not spurious, but that personal relationships with the CEO affect the role directors assume in the boardroom.

(Insert Table 5 about here)

In Table 5, I replicate Table 4 with *Monitoring Role* as the dependent variable. Less of the variation in *Monitoring Role* appears to be accounted for by the factors I consider. What is noticeable is that the interaction term  $Board\ Size * Ln(Assets)$  is negative in Column II. The coefficient on this variable in the previous Table was positive. Taken together, these results suggest that in complex firms, as proxied by large firms, individual directors on larger boards are more likely to have an advisory role and less likely to have a monitoring role. What is also

noticeable is that the coefficient on *Same Industry* is significantly positive across specifications. Taken together with the results from Table 4, this suggests that directors from the same industry rate their monitoring role as more important than their advisory role. On the other hand, *Friends With CEO* is not significant in these regressions. Thus, directors who feel friendlier to the CEO rate their advisory role as more important, but are neutral with respect to their monitoring role. Also noticeable is the fact that the coefficient on *Lagged ROA* is negative across all columns, although only significant at the 10% level in Column III. This suggest that directors perceive their monitoring role as less important when past performance has been high.

(Insert Table 6 about here)

In Table 6 I examine the relationship between *Advisory Role* and decision-making power, as measured by the items *CEO Decides*, *Board Decides* and *Major Shareholder Decides*. To avoid multicollinearity between these variables, I include only one of them at a time. To take advantage of the full sample, I first examine a basic specification which includes a measure of decision-making power and the controls *Number of Directorships*, *Director Age*, *Director Tenure*, *Alternate Status* and *Board Size*. Then I add the measure of decision-making to the expanded specification in Column IV of Table 4. Columns I and II include *CEO Decides*. Columns III and IV includes *Board Decides* and Columns V and VI includes *Major Shareholder Decides*. I replicate these regressions for *Monitoring Role* in Table 7.

The results in Tables 6 and 7 show several interesting patterns. As one might expect, when directors perceive that the CEO has more control over decision-making, directors agree less that they have an advisory role and more that they have a monitoring role. A similar pattern holds for major shareholder control. But, when the board perceives itself to be more in control, directors' perceptions are the opposite. They agree more that they have an advisory role and less that they have a monitoring role. This is consistent with the arguments by e.g. Adams and Ferreira (2007) and Harris and Raviv (2008) that directors may reduce monitoring when they are in control in favor of better communication.

The results in this Section show that directors' perceptions of their roles vary in ways consistent with arguments made in the literature concerning boards' advising needs. Directors'

perceptions of the importance of their advisory role appear to increase with proxies for their experience, measures of firm complexity and the strength of their personal relationship with the CEO. Directors' perceptions of the importance of their monitoring role show less variation. But both advising and monitoring are significantly related to proxies for decision-making power. These results suggest that boards play different roles in different firms and directors play different roles on a given board, depending on their characteristics. Thus, it is unlikely that policy aimed at strengthening a single role of the board, e.g. monitoring, by focussing on a single metric, e.g. board independence, can enhance board effectiveness in all firms.

## **6. Problems with survey data**

Theory and intuition suggest that advisors should communicate more, experienced directors should be more engaged and the input of individual directors may be less valued on larger boards. It is also intuitive that the CEO is more likely to consult the board when the board has more power and that experienced directors are more likely to advise the CEO, as well as directors from other industries. The finding that directors who consider themselves friends of the CEO also agree more that they advise the CEO is also plausible. If the survey answers reflect actual board practice, then the previous results provide direct evidence that some factors the governance literature traditionally considers important, such as board size and number of directorships, do influence how directors govern. However, these results also highlight that having independent directors who monitor may not be sufficient for good governance. Instead, personal connections between directors and the CEO may be important, as well as directors who serve an advisory role.

However, as with any study of survey data, the results are less meaningful if the survey answers are biased because respondents are systematically different from nonrespondents, if the survey did not elicit meaningful responses or the answers merely reflect beliefs and not practice.

Nonresponse bias is a concern if the directors who did not return the survey differed sys-

tematically from those who did. For example, the summary statistics in Table 1A show that older directors were more likely to answer the survey. Since age is also correlated with some measures of communication and directors' roles in Tables 3-7, it is possible that the results are biased because respondents are older than nonrespondents. I address this concern in Section 6.1 by estimating Heckman selection regressions.

Another concern with survey data is that the survey questions do not elicit meaningful responses either because respondents do not answer truthfully or because the questions were not properly understood. While it is impossible to verify the accuracy of the responses, the fact that the survey recipients were guaranteed anonymity should increase confidence that their responses are truthful. Since nearly all respondents completed the entire survey, I believe that the likelihood the directors did not understand the survey is small. Nevertheless, as a robustness check I deleted observations for which the director did not answer more than 75% of questions (5 observations) or chose any answer (e.g. 3) more than 60% of the time (13 observations). Directors with missing answers may have been least likely to understand the survey and directors who generally chose the same answer may have been less careful in their responses. The results are qualitatively the same after this robustness check.

A final concern is that the survey responses reflect belief but not practice. By asking directors to answer some questions in the context of a recent decision the board made, I attempted to prevent this problem as much as possible. I also conduct further analyses that serve as a robustness check that the responses are meaningful by examining CEO responses in Section 6.2. If the factors affecting them appear similar to those affecting directors' answers, it is plausible that the directors' responses do pick up useful information.

## **6.1. Nonresponse bias**

As Table 1 suggests there are several differences between characteristics of survey respondents and nonrespondents. Respondents are slightly older and have slightly more directorships. They are more likely to come from larger and better performing boards in terms of *Lagged ROA*. While

the differences in most characteristics are small, it is possible that the sample of respondents is sufficiently different to bias the previous results. To address the problem of sample selection bias, I estimate Heckman selection regressions for all previous regressions using maximum likelihood.

To correct for sample selection bias, I need to include a variable in my selection equation that is highly correlated with the likelihood that a director responds to the survey and that is not already included in my regressions. I use two instruments. The first is a dummy variable indicating whether the Chairman responded to the survey.<sup>18</sup> The second is the salary directors received in 2004 from their primary employer. It is plausible that directors are more willing to respond to the survey if they realize that the Chairman responded. Because my regressions pertain largely to directors' relationship with the CEO and in Sweden the Chairman is neither the CEO nor a member of management, it is unlikely that this dummy is an omitted variable from my previous regressions.

The salary directors received from their primary employer is a measure of directors' opportunity cost of time. I expect higher paid directors to be less likely to respond to the survey. In addition, this variable is unlikely to be an omitted variable from the previous regressions. I also include all other individual director characteristics, *Board Size* and *Lagged ROA* in the selection equation. For the sake of brevity, in Table 8 I report only the Heckman results for a subset of the specifications in Table 3. As before, I adjust all standard errors for heteroskedasticity and group correlation at the firm level.

(Insert Table 8 about here)

Column I of Table 8 shows the estimates of the selection equation. The dependent variable is defined to be one if a director responded to the survey. As the summary statistics suggest, *Number of Directorships* and *Age* are positively correlated with the likelihood a director responds to the survey, while *Tenure* and *Same Industry* are negatively correlated. *Board Size* and *Lagged ROA* have no effect. Most importantly, the coefficients on the instruments are highly significant (both at the 1% level) with the expected signs. Columns II-VII show the

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<sup>18</sup>Out of 157 chairmen, 68 responded. The average salary for 1342 directors with data in 2004 was roughly \$96,813.

results of estimating the specifications in Columns I, II and VIII-XI of Table 3, respectively, using Heckman selection regressions. The results are very similar to those in Table 3. At the bottom of Table 8, I report the p-value for the Wald test of independence of equations in the Heckman selection model. The p-value is less than 10% in 4 out of 6 Columns, which suggests that it is important to control for selection. Selection appears to be particularly problematic for the regression with *Opinion* as the dependent variable. *Number of Directorships* is significantly positive in the specification in Table 3, whereas here it is significantly negative. Furthermore, *Same Industry* is significantly positive here. However, the coefficients on *Advisory Role* and *Monitoring Role* have the same sign and *Advisory Role* is still significant. Heckman estimates of all other specifications in Tables 3-7 are qualitatively similar to the ologit regressions. Thus, nonresponse bias does not invalidate the general conclusions from the previous analysis.

## 6.2. CEO responses

So far, I have relied exclusively on survey responses by directors. In this Section, I examine CEO responses to see which factors are related to the CEOs' perceptions directors' roles. If these factors are similar to those that affect director's perceptions, then this suggests that directors' survey responses are not systematically biased. Because the survey statements directors ranked were not directly applicable to CEOs, I modified them slightly. Thus, for example, directors ranked their agreement to the statement "The CEO often asks me to provide advice and counsel." The corresponding statement the CEO received was "I often ask directors to provide advice and counsel." Panel B of Table 2 indicates how I adapted other survey statements in the CEO survey for which it made sense to obtain the CEO's perspective.<sup>19</sup>

I first examine the relationship between the CEO's version of *CEO Values My Inputs (I Value Inputs)* and the same explanatory variables as in Table 3, with the following modifications: First, *Advisory Role-CEO* and *Monitoring Role-CEO* are the CEO's responses to the statements "I often ask directors to provide advice and counsel" and "The board spends more

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<sup>19</sup>I did not ask the CEO whether he felt he provided sufficient information, for example, because I doubted that he would admit it, if not. Of all the survey items I examine in Table 3, I felt it only made sense to adapt the item *CEO Values My Inputs* to an item the CEO could comment on (*I Value Inputs*).

time evaluating management performance than providing input into strategic decision-making”. Second, I include the firm-level averages of all director characteristics in the regressions, as well as a dummy indicating whether the CEO is a Vice-CEO. Finally, because the sample of CEO observations is so small, I exclude firm-level variables and industry dummies. I use ordered logit regressions and adjust all standard errors for heteroskedasticity. The results are as follows:

$$\begin{aligned}
I \text{ Value Inputs} = & \frac{0.672^{***}}{[4.97]} \text{Advisory Role-CEO} - \frac{0.337^{**}}{[2.24]} \text{Monitoring Role-CEO} \\
& + \frac{0.741}{[0.87]} \text{Fraction Same Industry Directors} \\
& - \frac{0.522}{[1.42]} \text{Mean Number of Directorships of Directors} \\
& - \frac{0.002}{[0.04]} \text{Mean Age of Directors} + \frac{0.149}{[1.10]} \text{Mean Tenure of Directors} \\
& + \frac{0.669}{[0.39]} \text{Fraction Alternate Directors} - \frac{0.187^{**}}{[1.99]} \text{Board Size} \\
& - \frac{0.022}{[0.05]} \text{Vice-CEO} + \text{error term.}
\end{aligned}$$

It is interesting to note that the coefficient on *Board Size* is negative and significant. This is consistent with the results in Table 3, Columns VII and XI, that directors perceive their input to be less valued on larger boards. The results for *Advisory Role-CEO* and *Monitoring Role-CEO* are also consistent with Table 3, Column XI. CEOs value the inputs of directors more, the more they perceive that they ask directors for advice and the less they perceive that the board serves primarily to evaluate management.

(Insert Table 9 about here)

In Table 9, I examine CEOs’ perceptions of the roles directors play using ordered logit regressions. I use similar specifications as in Tables 4-7 using survey responses of CEOs and mean director characteristics, but no firm-level variables. While almost no explanatory variable is significant, CEOs’ perceptions that they are friends with outsiders is positively and significantly correlated with their perceptions that they rely on directors for advice and negatively and significantly correlated with their perceptions that the board serves primarily as monitor.



Both of these findings are consistent with directors' perceptions. In Columns I-V, the coefficient on *Vice-CEO* is significantly negative. In Sweden only one member of management can serve on the board. Since this is less likely to be the Vice-CEO, it is plausible that he does not ask directors for advice and counsel.

In general, CEOs' responses appear less informative than directors' responses, most likely because the sample is much smaller. However, CEOs' perceptions of directors' roles are similar to directors' perceptions, which suggests that director responses may reflect not simply beliefs, but also practice.

## 7. Conclusion

There are many theories about effective boards. There are also many governance standards prescribing what boards should look like. However, directing involves behavior that is not easily measurable for outside observers. In this paper, I use survey data in an attempt to quantify some aspects of directors' roles and behavior. My goal is to examine whether governance characteristics the literature is concerned with explain some of their variation. I find evidence that some factors the literature traditionally predicts should be related to director behavior matter. For example, directors with more directorships appear more engaged, consistent with the idea that they are more experienced. I also find evidence consistent with recent theories about trade-offs in directors' roles. Directors who consider their role to consist primarily in monitoring do not feel that they participate as much in discussions or that their input is as valued by the CEO as other directors. This raises doubts that increasing the monitoring strength of the board will necessarily lead directors to be more effective, as governance standards often implicitly assume. Instead, the results suggest that directors who fulfill an advisory role on the board may also be important. Directors' perceptions of their advisory role are positively correlated with measures of participation in decision-making. Since directors with better personal relationships with management are more likely to have an advisory role, the results suggest that allowing some dependence between directors and managers may be value-

enhancing, consistent with Adams and Ferreira (2007).

I believe that the results in this paper suggest that survey-based research of directors may effectively complement research using publicly-available data. The data in this paper provides some insight into director behavior that cannot be obtained using publicly-available data. It also raises further questions. For example, since few of the factors I investigate are related to directors' perceptions of their monitoring role, it would be interesting to investigate other possible determinants of monitoring. Although survey data also has its problems, it is possible to address some of these. For example, with an appropriate sample, as in this paper, potential nonresponse bias can be addressed using Heckman selection techniques.

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**Table 1A: Summary statistics for survey respondents and nonrespondents**

This table contains summary statistics of characteristics of all resident directors (1,372 individuals) of all publicly-traded firms in Sweden (286 firms) in 2005. The top panel contains summary statistics for all survey respondents. The bottom panel contains statistics for all nonrespondents. Number of directorships is the number of directorships a director holds in all publicly-traded firms including the firm the director was surveyed for. Alternate is a dummy variable which is defined to be one if the director is an alternate director. Same Industry is a dummy variable which is defined to be one if the director's primary employer in 2004 is from the same two-digit industry as the firm on whose board the director sits. Two-digit industry codes are from Statistics Sweden. All other data is from Market Manager. The differences in director characteristics between respondents and nonrespondents are significant at the 1% level for Number Directorships, and Age and at the 10% level for Alternate.

Variable	Obs	Mean	Std. Dev.	Min	Max
Survey respondents					
Number of Directorships	502	1.361	0.838	1	7
Age	502	54.203	9.405	24	73
Tenure	502	2.677	2.264	0	9
Alternate	502	0.136	0.343	0	1
Same Industry	466	0.391	0.488	0	1
Survey nonrespondents					
Number of Directorships	870	1.243	0.687	1	6
Age	870	52.024	9.787	24	80
Tenure	870	2.823	2.331	0	9
Alternate	870	0.174	0.379	0	1
Same Industry	825	0.432	0.496	0	1

**Table 1B: Summary statistics of firm characteristics with and without respondents**

This table contains summary statistics of financial characteristics of all publicly-traded firms in Sweden in 2005. The top panel contains summary statistics for firms with at least one survey respondent. The bottom panel contains statistics for firms with no respondent. Board Size is the number of regular directors, excluding alternates. Alternate is the number of alternate directors divided by board size plus the number of alternate directors. Same Industry is the number of directors from the same industry divided by board size plus the number of alternate directors. Assets are measured in thousands of Swedish Kronor (SEK). Leverage is the book value of debt divided by the book value of assets. Lagged ROA is net income divided by book value of assets in 2004. Fraction Respondents is the fraction of a firm's directors who responded to the survey. CEO Response Dummy is defined to be 1 if the CEO responded to the survey. Balance sheet data is from Osiris, except for leverage which is from Market Manager. Industry data is from Statistics Sweden. Board Characteristics are from Market Manager. Observations vary because of missing balance sheet information. The differences in characteristics between firms with and without respondents are insignificant except for Alternate and Same Industry, significant at the 1% level, and Board Size and Lagged ROA, significant at the 5% level.

Variable	Obs	Mean	Std. Dev.	Min	Max
Firms with at least one respondent					
Board Size	250	8.172	2.499	3.000	15.000
Alternate	250	0.102	0.121	0	0.5
Same Industry	233	0.484	0.251	0	1
Assets	237	3.21E+07	1.82E+08	2710	1.89E+09
Ln(Assets)	237	14.012	2.388	7.905	21.36
Leverage	240	0.773	1.142	-10.000	4.700
Lagged ROA	234	0.132	21.586	-179.39	42.84
Fraction Respondents	250	0.404	0.183	0.100	1.000
Number Respondents	250	2.512	1.380	1.000	8.000
CEO Response Dummy	250	0.464	0.500	0.000	1.000
Firms with no respondent					
Board Size	36	7.111	2.516	3	14
Alternate	36	0.0388	0.109	0	0.5
Same Industry	36	0.603	0.27	0	1
Assets	31	1.04E+08	5.48E+08	6316	6.00E+07
Ln(Assets)	31	13.263	2.716	8.751	21.841
Leverage	32	0.681	0.868	0	3.3
Lagged ROA	33	-8.287	-33.253	162.04	23.57

**Table 2: Survey questions and summary statistics of responses**

This table contains survey statements, variable names and summary statistics for responses of directors (including alternates) and CEOs (including Vice-CEOs) of publicly-traded firms in 2005 who responded to the survey. The item number indicates where the statement appeared in the overall survey. Panel A contains information about the directors' survey. Panel B contains information about the CEOs' survey. Survey recipients were asked to rank their agreement with each survey statement on a scale of 1 (strongly disagree) to 6 (strongly agree). In all, 502 directors (36.6%) and 126 CEOs (29.7%) responded to the survey. The minimum of director responses for all items in Panel A is 1, the maximum is 6. The maximum of CEO responses for all items in Panel B is 6 and the minimum is 1 except for *I Value Inputs*, which has a minimum of 2.

Survey statement (Item #)	Variable name	Obs	Mean	Std. Dev.
<b>Panel A</b>				
<i>Please consider a recent important strategic decision that the board made. Please assess the level of debate and the decision-making process concerning that decision as follows:</i>				
I had a strong view about what the correct decision should be. (#56)	<i>Opinion</i>	498	4.9	0.957
I voiced my views in the discussion. (#57)	<i>Voice Views</i>	499	4.896	1.118
I received sufficient information from management concerning the decision to be made (#58)	<i>Sufficient Information</i>	498	4.801	1.076
<i>Please consider your role as a board member and state your view on the following statements:</i>				
I feel that other board members value my inputs in board discussions (#65)	<i>Value My Inputs</i>	498	4.932	1.034
I feel that my inputs in formulating strategy are valued by management (#66)	<i>CEO Values My Inputs</i>	499	4.800	1.060
The CEO often asks me to provide advice and counsel. (#67)	<i>Advisory Role</i>	499	3.958	1.563
I spend more time evaluating management performance than providing input into strategic decision-making. (#68)	<i>Monitoring Role</i>	497	2.503	1.277
In our company, management usually makes final decisions on strategic issues. (#69)	<i>CEO Decides</i>	499	2.924	1.556
In our company, the board usually makes final decisions on strategic issues. (#70)	<i>Board Decides</i>	500	4.946	1.111
In our company, the Major shareholder usually makes final decisions on strategic issues. (#71)	<i>Major Shareholder Decides</i>	498	3.307	1.632



**Table 2 continued**

<b>Panel A continued</b>				
<i>Please consider your relationship with the board members and evaluate the following statements:</i>				
I am friends with most outside board members. (#72)	<i>Friends With Outsiders</i>	499	3.238	1.679
I am friends with the CEO. (#73)	<i>Friends With CEO</i>	499	3.459	1.665
I am friends with the Major shareholder. (#74)	<i>Friends With Major Shareholder</i>	492	3.341	1.806
<b>Panel B</b>				
<i>Please consider your role as a CEO or Vice CEO and state your view on the following statements:</i>				
I value directors' input in formulating strategy. (#64)	<i>I Value Inputs</i>	126	5.143	1.033
I often ask directors to provide advice and counsel. (#65)	<i>Advisory Role-CEO</i>	126	4.270	1.323
The board spends more time evaluating management performance than providing input into strategic decision-making. (#66)	<i>Monitoring Role-CEO</i>	126	2.746	1.569
In our company, management usually makes final decisions on strategic issues. (#67)	<i>I Decide</i>	126	3.929	1.346
In our company, the board usually makes final decisions on strategic issues. (#68)	<i>Board Decides-CEO</i>	126	3.548	1.542
In our company, the Major shareholder usually makes final decisions on strategic issues. (#69)	<i>Major Shareholder Decides-CEO</i>	126	3.310	1.632
<i>Please consider your relationship with the board members and evaluate the following statements:</i>				
I am friends with most outside board members. (#70)	<i>Friends With Outsiders-CEO</i>	126	3.579	1.514
I am friends with the Major shareholder. (#71)	<i>Friends With Major Shareholder-CEO</i>	125	3.824	1.801

**Table 3: Information exchange, decision-making and directors' roles**

This table shows the results of ordinal logit regressions in the sample of directors' survey responses. The dependent variables are survey items designed to capture information exchange and participation of directors in decision-making. All survey items including Advisory role and Monitoring role are defined in Table 2. Remaining variables are as in Table 1. The specifications in Columns II-XI include one-digit industry dummies. All standard errors are adjusted for heteroskedasticity and group correlation at the firm level. Observations vary because of missing data. Absolute values of z-statistics are in brackets. \*\*\*, \*\*, \* indicate significance at the 1, 5, and 10% level, respectively.

	<i>Sufficient Information</i>			<i>Opinion</i>	<i>Voice Views</i>	<i>Value My Input</i>	<i>CEO Values My Inputs</i>	<i>Opinion</i>	<i>Voice Views</i>	<i>Value My Input</i>	<i>CEO Values My Inputs</i>
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
Advisory Role	0.192*** [2.76]	0.212*** [2.84]	0.162* [1.73]					0.262*** [3.51]	0.465*** [5.74]	0.447*** [4.95]	0.898*** [9.80]
Monitoring Role	-0.097 [1.30]	-0.085 [1.09]	0.034 [0.34]					-0.051 [0.58]	-0.247*** [3.09]	-0.114 [1.39]	-0.222** [2.53]
Number of Directorships	0.026 [0.32]	0.012 [0.14]	0.032 [0.38]	0.349*** [3.08]	0.312*** [2.81]	0.062 [0.61]	0.069 [0.77]	0.312*** [2.63]	0.265** [2.04]	0.006 [0.05]	-0.073 [0.63]
Age	0.007 [0.59]	0.004 [0.32]	1.8805e-4 [0.01]	0.01 [0.83]	-0.003 [0.23]	0.015 [1.37]	0.011 [0.90]	0.005 [0.44]	-0.011 [1.00]	0.008 [0.73]	0.001 [0.04]
Tenure	-0.004 [0.09]	-0.012 [0.22]	-0.008 [0.15]	0.109** [2.34]	0.094** [2.07]	0.011 [0.25]	0.014 [0.29]	0.102** [2.17]	0.097** [2.04]	0.004 [0.10]	-0.01 [0.21]
Alternate	-0.089 [0.31]	-0.014 [0.05]	0.007 [0.02]	-0.872*** [2.88]	-1.414*** [4.40]	-1.968*** [6.23]	-1.905*** [5.82]	-0.656** [2.07]	-1.008*** [3.06]	-1.638*** [5.54]	-1.280*** [3.62]
Board Size	0.025 [0.63]	-0.022 [0.41]	-0.017 [0.33]	0.014 [0.27]	-0.029 [0.57]	-0.141*** [2.72]	-0.105** [2.03]	0.017 [0.33]	-0.017 [0.34]	-0.131** [2.53]	-0.098* [1.78]
Same Industry		0.461** [2.25]	0.606 [0.76]	-0.011 [0.05]	-0.329 [1.58]	-0.072 [0.37]	-0.264 [1.29]	0.083 [0.42]	-0.203 [1.00]	0.082 [0.43]	-0.003 [0.01]
Ln(Assets)		0.079* [1.81]	0.075* [1.70]	-0.062 [1.10]	-0.160*** [3.07]	-0.035 [0.65]	-0.036 [0.73]	-0.026 [0.45]	-0.116** [2.02]	0.029 [0.51]	0.083 [1.57]
Sufficient Information				0.214** [2.28]	0.252** [2.56]	0.309*** [3.20]	0.432*** [4.23]				
Adv. Role* Same Industry			0.141 [0.94]								
Mon. Role* Same Industry			-0.265* [1.69]								
Observations	496	430	430	432	432	431	432	430	430	431	431

**Table 4: Factors related to directors' advisory role**

This table shows the results of ordinal logit regressions in the sample of directors' survey responses. The dependent variable is Advisory Role. All variables based on survey responses are defined in Table 2. Remaining variables are as in Table 1. Columns IV and V include one-digit industry dummies. All standard errors are adjusted for heteroskedasticity and group correlation at the firm level. Observations vary because of missing data. Absolute values of z-statistics are in brackets. \*\*\*, \*\*, \* indicate significance at the 1, 5, and 10% level, respectively.

	<i>Advisory Role</i>				
	I	II	III	IV	V
Friends with CEO	0.416*** [7.37]	0.405*** [6.61]	0.418*** [6.62]	0.416*** [6.67]	0.617*** [6.24]
Number of Directorships	0.219** [2.00]	0.249** [2.09]	0.261** [2.03]	0.231* [1.77]	0.213 [1.58]
Age	0.013 [1.26]	0.014 [1.22]	0.016 [1.35]	0.020* [1.68]	0.029** [2.34]
Tenure	-0.015 [0.39]	0.021 [0.51]	0.021 [0.51]	-0.002 [0.04]	-0.012 [0.29]
Alternate	-1.407*** [5.25]	-1.464*** [5.05]	-1.481*** [4.83]	-1.374*** [4.10]	-1.414*** [4.18]
Board Size	-0.141*** [3.97]	-0.337* [1.89]	-0.067 [1.33]	-0.027 [0.54]	-0.043 [0.83]
Same Industry		-0.387** [2.22]	-0.358** [1.97]	-0.275 [1.47]	-0.27 [1.42]
Ln(Assets)		-0.304** [2.55]	-0.165*** [2.96]	-0.184*** [3.43]	-0.171*** [3.16]
Board Size*Ln(Assets)		0.020* [1.68]			
Leverage			0.178*** [2.73]	0.116 [1.13]	0.114 [1.08]
Lagged ROA			0.001 [0.20]	0.001 [0.13]	-0.001 [0.20]
Friends with Major Shareholder					-0.008 [0.09]
Friends With Outsiders					-0.285** [2.54]
Observations	498	441	406	398	392

**Table 5: Factors related to directors' monitoring role**

This table shows the results of ordinal logit regressions in the sample of directors' survey responses. The dependent variable is Monitoring Role. All variables based on survey responses are defined in Table 2. Remaining variables are as in Table 1. Columns IV and V include one-digit industry dummies. All standard errors are adjusted for heteroskedasticity and group correlation at the firm level. Observations vary because of missing data. Absolute values of z-statistics are in brackets. \*\*\*, \*\*, \* indicate significance at the 1, 5, and 10% level, respectively.

	<i>Monitoring Role</i>				
	I	II	III	IV	V
Friends with CEO	0.024 [0.50]	0.057 [1.10]	0.056 [1.03]	0.07 [1.22]	0.016 [0.17]
Number of Directorships	-0.103 [1.00]	-0.067 [0.57]	-0.079 [0.65]	-0.062 [0.50]	-0.037 [0.30]
Age	0.01 [1.01]	0.004 [0.35]	-2.204e-4 [0.02]	-0.003 [0.31]	-0.005 [0.45]
Tenure	0.021 [0.57]	-0.008 [0.19]	-0.028 [0.66]	-0.014 [0.32]	-0.018 [0.41]
Alternate	0.554* [1.78]	0.646** [2.04]	0.636* [1.81]	0.611* [1.68]	0.651* [1.80]
Board Size	0.024 [0.69]	0.416** [2.20]	0.028 [0.60]	0.002 [0.04]	0.011 [0.23]
Same Industry		0.390* [1.84]	0.549** [2.43]	0.491** [2.14]	0.490** [2.05]
Ln(Assets)		0.21 [1.58]	-0.002 [0.04]	0.011 [0.18]	0.016 [0.27]
Board Size*Ln(Assets)		-0.026* [1.93]			
Leverage			0.024 [0.53]	0.086 [1.21]	0.085 [1.19]
Lagged ROA			-0.007* [1.78]	-0.006 [1.56]	-0.006 [1.53]
Friends with Major Shareholder					0.071 [0.93]
Friends With Outsiders					-0.002 [0.02]
Observations	496	439	404	396	391

**Table 6: Decision-making power and directors' advisory role**

This table shows the results of ordinal logit regressions in the sample of directors' survey responses. The dependent variable is Advisory Role. All variables based on survey responses are defined in Table 2. Remaining variables are as in Table 1. Columns II, IV and VI include one-digit industry dummies. All standard errors are adjusted for heteroskedasticity and group correlation at the firm level. Observations vary because of missing data. Absolute values of z-statistics are in brackets. \*\*\*, \*\*, \* indicate significance at the 1, 5, and 10% level, respectively.

	<i>Advisory Role</i>					
	I	II	III	IV	V	VI
CEO Decides	-0.158** [2.38]	-0.092 [1.30]				
Board Decides			0.285*** [3.86]	0.254*** [2.91]		
Major Shareholder Decides					-0.131** [2.23]	-0.118* [1.92]
Number of Directorships	0.196* [1.78]	0.224* [1.70]	0.216** [1.97]	0.239* [1.81]	0.201* [1.81]	0.213 [1.61]
Age	0.012 [1.20]	0.019* [1.66]	0.01 [0.97]	0.016 [1.40]	0.013 [1.22]	0.020* [1.67]
Tenure	-0.026 [0.67]	-0.011 [0.25]	-0.016 [0.43]	-0.013 [0.29]	-0.013 [0.34]	-0.004 [0.09]
Alternate	-1.264*** [4.56]	-1.299*** [3.93]	-1.455*** [5.35]	-1.421*** [4.06]	-1.366*** [5.14]	-1.365*** [4.11]
Board Size	-0.143*** [3.87]	-0.025 [0.50]	-0.148*** [4.18]	-0.032 [0.65]	-0.141*** [3.91]	-0.025 [0.50]
Friends With CEO		0.420*** [6.87]		0.418*** [6.61]		0.423*** [6.80]
Same Industry		-0.216 [1.12]		-0.158 [0.81]		-0.251 [1.33]
Ln(Assets)		-0.192*** [3.49]		-0.194*** [3.42]		-0.183*** [3.40]
Leverage		0.11 [1.10]		0.1 [1.00]		0.101 [1.05]
Lagged ROA		0.001 [0.16]		0.001 [0.12]		3.417e-4 [0.06]
Observations	498	398	498	398	496	397

**Table 7: Decision-making power and directors' monitoring role**

This table shows the results of ordinal logit regressions in the sample of directors' survey responses. The dependent variable is Monitoring Role. All variables based on survey responses are defined in Table 2. Remaining variables are as in Table 1. Columns II, IV and VI include one-digit industry dummies. All standard errors are adjusted for heteroskedasticity and group correlation at the firm level. Observations vary because of missing data. Absolute values of z-statistics are in brackets. \*\*\*, \*\*, \* indicate significance at the 1, 5, and 10% level, respectively.

	<i>Monitoring Role</i>					
	I	II	III	IV	V	VI
CEO Decides	0.214*** [3.59]	0.221*** [3.12]				
Board Decides			-0.204** [2.28]	-0.096 [0.94]		
Major Shareholder Decides					0.118** [2.35]	0.113** [2.00]
Number of Directorships	-0.066 [0.66]	-0.05 [0.43]	-0.091 [0.90]	-0.061 [0.50]	-0.073 [0.70]	-0.036 [0.29]
Age	0.012 [1.20]	-4.966e-4 [0.05]	0.013 [1.30]	-0.001 [0.14]	0.008 [0.85]	-0.004 [0.35]
Tenure	0.034 [0.89]	0.005 [0.11]	0.019 [0.50]	-0.011 [0.25]	0.021 [0.55]	-0.014 [0.31]
Alternate	0.397 [1.28]	0.415 [1.15]	0.577* [1.92]	0.611* [1.72]	0.561* [1.81]	0.568 [1.55]
Board Size	0.022 [0.62]	-0.006 [0.12]	0.026 [0.76]	0.004 [0.08]	0.021 [0.60]	0.004 [0.08]
Friends With CEO		0.063 [1.11]		0.069 [1.21]		0.07 [1.22]
Same Industry		0.357 [1.50]		0.447* [1.90]		0.466** [2.02]
Ln(Assets)		0.034 [0.53]		0.013 [0.21]		0.011 [0.18]
Leverage		0.101 [1.53]		0.091 [1.29]		0.105 [1.51]
Lagged ROA		-0.007* [1.75]		-0.006 [1.55]		-0.006 [1.49]
Observations	496	396	496	396	494	395

**Table 8: Heckman selection regressions**

This table shows the result of Heckman selection regressions of a subset of the specifications in Table 3. Column I shows the results of the selection equation. The main instruments are Chairman Responded, which is a dummy equal to one if the Chairman responded to the survey, and Salary 2004, which is the salary a director received in 2004 from his primary employer. Columns II-VII show the results of the Heckman selection regressions of the specifications in Table 3, Columns I-II and VIII-XI. Data on Salary 2004 are from Statistics Sweden. All other data is as in Tables 1 and 2. The last row of Table 8 reports the p-value for the Wald test of the independence of the selection and outcome equations. All standard errors are adjusted for heteroskedasticity and group correlation at the firm level. Absolute values of z-statistics are in brackets. Observations vary because of missing data. \*\*\*, \*\*, \* indicate significance at the 1, 5, and 10% level, respectively.

	<i>Respond To Survey</i>	<i>Sufficient Information</i>		<i>Opinion</i>	<i>Voice Views</i>	<i>Value My Input</i>	<i>CEO Values My Inputs</i>
	I	II	III	IV	V	VI	VII
Advisory Role		0.144*** [3.52]	0.151*** [3.71]	0.105*** [3.96]	0.247*** [6.53]	0.223*** [5.79]	0.361*** [10.70]
Monitoring Role		-0.04 [0.88]	-0.046 [1.01]	-1.22e-5 [0.00]	-0.111*** [2.72]	-0.06 [1.60]	-0.082** [2.25]
Number of Directorships	0.100*** [2.95]	0.05 [1.01]	0.026 [0.51]	0.025 [0.51]	0.126** [2.56]	0.04 [0.82]	0.008 [0.18]
Age	0.019*** [5.48]	0.006 [0.85]	0.003 [0.47]	-0.021*** [3.02]	0.002 [0.39]	0.005 [0.99]	0.004 [0.65]
Tenure	-0.031* [1.95]	-0.006 [0.21]	-0.008 [0.29]	0.075*** [2.83]	0.039* [1.93]	0.008 [0.39]	-0.005 [0.24]
Alternate	0.058 [0.65]	0.03 [0.17]	0.005 [0.03]	-0.477*** [2.84]	-0.560*** [2.96]	-0.876*** [5.50]	-0.666*** [4.23]
Board Size	0.026 [1.38]	0.025 [1.03]	-0.005 [0.16]	-0.008 [0.29]	-0.009 [0.37]	-0.058** [2.54]	-0.041** [2.06]
Same Industry	-0.384*** [6.10]		0.16 [1.35]	0.357*** [3.14]	-0.148 [1.43]	0.04 [0.42]	-0.066 [0.73]
Lagged ROA	0.002 [0.71]						
Ln(Assets)			0.054** [2.15]	0.002 [0.10]	-0.059** [2.02]	0.014 [0.52]	0.043** [2.09]
Chairman Responded	0.389*** [3.64]						
Salary 2004	-1.81e-7*** [6.09]						
Constant	-1.600*** [5.95]	3.417*** [5.80]	3.120*** [4.67]	6.930*** [12.03]	4.777*** [8.35]	4.065*** [7.73]	3.052*** [6.50]
Observations	1456	1456	1452	1452	1452	1453	1453
P-value for Wald test of independent equations		0.0442	0.3731	0.0000	0.2501	0.0651	0.0313

**Table 9: CEO responses concerning directors' roles**

This table shows the results of ordinal logit regressions in the sample of CEOs' survey responses. The dependent variables are items concerning directors' roles. The dependent variable in Columns I-V is Advisory Role-CEO. The dependent variable in Columns VI-X is Monitoring Role-CEO. All survey items are defined in Table 2, panel B. All director characteristics enter the regressions as firm level averages. Vice-CEO is a dummy variable indicating the Vice-CEO. All standard errors are adjusted for heteroskedasticity and group correlation at the firm level. Absolute values of z-statistics are in brackets. Observations vary because of missing data. \*\*\*, \*\*, \* indicate significance at the 1, 5, and 10% level, respectively.

	<i>Advisory Role-CEO</i>					<i>Monitoring Role-CEO</i>				
	I	II	III	IV	V	VI	VII	VIII	IX	X
Friends With Outsiders-CEO	0.269** [2.16]	0.184 [1.21]	0.269** [2.16]	0.272** [2.22]	0.270** [2.19]	-0.337** [2.42]	-0.404* [1.94]	-0.338** [2.43]	-0.330** [2.37]	-0.338** [2.42]
Fraction Same Industry Directors	0.549 [0.96]	0.497 [0.84]	0.465 [0.81]	0.463 [0.80]	0.553 [0.95]	-0.729 [1.22]	-0.763 [1.25]	-0.69 [1.10]	-0.809 [1.26]	-0.72 [1.21]
Mean Number of Directorships of Directors	0.099 [0.20]	0.077 [0.16]	0.056 [0.11]	0.068 [0.14]	0.11 [0.22]	0.069 [0.17]	0.039 [0.09]	0.082 [0.20]	0.044 [0.11]	0.08 [0.20]
Mean Age of Directors	-0.049 [1.33]	-0.05 [1.29]	-0.044 [1.20]	-0.043 [1.19]	-0.05 [1.35]	0.014 [0.30]	0.018 [0.36]	0.014 [0.30]	0.016 [0.34]	0.015 [0.31]
Mean Tenure of Directors	0.139 [1.19]	0.17 [1.40]	0.133 [1.15]	0.124 [1.05]	0.141 [1.19]	0.007 [0.05]	0.02 [0.16]	0.009 [0.07]	0.001 [0.01]	0.002 [0.02]
Fraction Alternate Directors	-0.844 [0.75]	-0.829 [0.75]	-0.793 [0.73]	-0.86 [0.81]	-0.877 [0.81]	0.484 [0.39]	0.466 [0.37]	0.495 [0.40]	0.446 [0.35]	0.423 [0.32]
Board Size	0.049 [0.61]	0.053 [0.67]	0.043 [0.53]	0.04 [0.47]	0.053 [0.64]	-0.116 [1.20]	-0.12 [1.26]	-0.114 [1.17]	-0.118 [1.28]	-0.114 [1.18]
Vice-CEO	-1.199*** [2.86]	-1.285*** [2.93]	-1.167*** [2.71]	-1.187*** [2.78]	-1.196*** [2.82]	0.162 [0.30]	0.093 [0.17]	0.157 [0.29]	0.169 [0.32]	0.175 [0.32]
Friends With Major Shareholder-CEO		0.147 [1.11]					0.101 [0.60]			
I Decide			-0.138 [0.87]					0.054 [0.32]		
Board-Decides-CEO				0.14 [1.05]					0.084 [0.62]	
Major Shareholder Decides-CEO					0.05 [0.44]					0.059 [0.47]
Observations	118	117	118	118	118	118	117	118	118	118



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