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Executive dismissal within the broader governance context:

An empirical analysis of internal and external control mechanisms

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Vorwort

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Florian Christ

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List of abbreviations

CEO	Chief executive officer
CFO	Chief financial officer
I/B/E/S	Institutional Brokers' Estimate System
ROA	Return on assets
SOX	Sarbanes-Oxley Act
S&P	Standard & Poor's
S.D.	Standard deviation
TMT	Top management team
TRS	Total return to shareholders

I. Introduction

1 Research motivation

The question of which determinants lead to the dismissal of top executives has drawn a lot of research attention over recent decades (for an overview, see Finkelstein, Hambrick, & Cannella, 2009). Finkelstein et al. (2009) argued that the topic of executive dismissal is of greatest theoretical interest, as it has a profound impact on the firm's long-term financial and operational success (Boeker, 1992; Huson, Parrino, & Starks, 2001). Similarly, Beck and Wiersema (2011) highlighted that executive dismissal is an occurrence of substantive and symbolic importance to both internal and external constituents of the modern corporation. In particular, executive dismissal is a defining event for internal constituents because of its disruptiveness (e.g., Fredrickson, Hambrick, & Baumrin, 1988; Khurana, 2001; Shen, 2003) and the general difficulty in making such a decision (e.g., Lorsch & MacIver, 1994; Mace, 1986; Ward, 1997). The importance of executive dismissal to external constituents largely stems from its exceptional visibility and publicity (e.g., Wiersema & Zhang, 2011) as well as its ability to affect stock prices (e.g., Shen & Cannella, 2002b). Governmental organizations such as the US Securities Exchange Commission have consistently highlighted executive dismissal as an important corporate sanction, which – compared with takeovers or bankruptcies – is less costly (Lipton & Lorsch, 1992).

Interestingly, scholars have reported a significant increase in executive dismissal rates in the US in recent years, suggesting that this historically rare phenomenon is becoming increasingly more common (Huson et al., 2001; Parrino, 1997; Wiersema, 2002; Wiersema & Zhang, 2011). Thus, given the importance of executive dismissal for internal and external constituents as well as its increasing frequency, it is not surprising that research on the determinants of executive dismissal has grown significantly over the past couple of decades (for a review, see Finkelstein et al., 2009; Giambatista, Rowe, & Riaz, 2005; Kesner & Dalton, 1994).

In order to disentangle the complex set of determinants of executive dismissal (Fredrickson et al., 1988; Shen & Cho, 2005), previous academic research has primarily focused on the internal governance context, with the board of directors as the most important internal control mechanism (Fredrickson et al., 1988; Halebian & Rajagopalan, 2006; Shen, 2003; Walsh & Seward, 1990). The board of directors stands at the “apex of the corporate hierarchy” (Bainbridge, 2002:10) and holds the fiduciary duty to sanction and – if required – to dismiss corporate executives on behalf of shareholders (Mizruchi, 1983). However, much governance research has questioned the board’s effectiveness in evaluating corporate performance and making executive replacements (e.g., Daily, Dalton, & Cannella, 2003; Mace, 1986; Useem, 2003; Westphal & Fredrickson, 2001). For example, scholars have highlighted the board’s independence, size and composition as influencing factors when assessing its effectiveness (Hermalin & Weisbach, 1998; Jensen, 1993; John & Senbet, 1998; Lipton & Lorsch, 1992). Moreover, previous research has shown that strong monitoring incentives such as stock ownership are important in order to ensure effective monitoring (Hambrick & Jackson, 2000; Morck, Shleifer, & Vishny, 1989). Yet, recent governance literature has suggested that effective monitors may also need specialized knowledge to detect opportunistic managerial behavior (Carpenter & Westphal, 2001; Gore, Matsunaga, & Eric Yeung, 2011; Hillman & Dalziel, 2003; Kroll, Walters, & Wright, 2008). However, this work has not been reflected in the executive dismissal context thus far. In particular, the discussion on the determinants of effective monitoring raises the important question that researchers have yet to address on how specialized knowledge and monitoring incentives in the firm’s internal governance structure affect executive dismissal.

Furthermore, when internal control mechanisms such as the board of directors prove to be ineffective in making managerial replacements, external control mechanisms can take on a more active role in the disciplining of top executives (Daily et al., 2003; Fama, 1980; Morck et al., 1989). For example, the capital market is able to induce a replacement of top executives, thereby stepping in as effective monitor of corporate management (Jensen, 1993; Mikkelsen & Partch, 1997; Morck et al., 1989). Emerging

research has shown that the external governance context, particularly financial analysts, is becoming increasingly important in influencing corporate outcomes such as executive dismissal (Beck & Wiersema, 2011; Wiersema & Zhang, 2011). As a result, the board of directors and the chief executive officer (CEO) are intensively engaged in communicating with financial analysts (cf. Beck & Wiersema, 2011; Wiersema & Zhang, 2011). Beck and Wiersema (2011:399) highlighted the “important role” of financial analysts as information provider via stock recommendations when the board of directors decides whether to dismiss an executive. Yet, the literature on the impact of financial analysts on corporate outcomes has suggested that the quality of their coverage and their visibility depends on their individual reputations, which stem either from their personal positions or from their organizational backgrounds (e.g., Hayward & Boeker, 1998; Hong & Kubik, 2003; Stickel, 1992). Thus, succession researchers – in their study on executive dismissal – have yet to address whether the reputations of financial analysts affect how the board of directors responds to analyst recommendations.

Finally, Shen (2003) introduced another important dimension that is likely to influence the effectiveness of making managerial replacements: the length of an executive’s tenure. In this vein, scholars have investigated executive dismissal at specific tenure stages and have found that a CEO faces a higher dismissal risk in the early years of his or her tenure (Shen, 2003; Shen & Cannella, 2002a; Zhang, 2008). Zhang (2008) was among the first to explain this phenomenon with the adverse selection problem that results from the information asymmetry between corporate boards and CEO candidates at the time of succession. However, evidence on the influence of external control mechanisms such as financial analysts on early dismissal decisions remains scarce. In particular, two important and interrelated issues emerge that succession researchers have yet to address. First, it remains unclear whether the recommendations by financial analysts affect the dismissal of newly appointed CEOs (Shen, 2003; Shen & Cannella, 2002b; Zhang, 2008). Second, it requires a better understanding of the contextual factors that might moderate the degree to which a board is attentive to analyst recommendations when deciding whether to dismiss a newly appointed CEO.

Overall, the research gaps above highlight the need for new insights into the influence of the broader governance context on executive dismissal. In particular, in order to better understand executive dismissal, it is important to not only address the determinants of effective internal control mechanisms but also include the factors that explain the role of external control mechanisms. Finkelstein et al. (2009:171) similarly concluded that scholars should “look [...] to other precipitating factors” to more accurately predict executive dismissal. Thus, shedding light on new determinants of executive dismissal likely advances existing succession and corporate governance research.

2 Research questions

This dissertation seeks to address the identified research gaps by investigating the phenomenon of executive dismissal within the broader governance context that incorporates both internal and external control mechanisms. More precisely, it aims to improve the understanding of internal control mechanisms by examining the role of specialized knowledge and monitoring incentives in the firm’s internal governance structure. In addition, it seeks to advance knowledge on external control mechanisms by shedding more light on how financial analysts and their reputations affect CEO dismissal. Finally, it aims to investigate the role of financial analysts and associated contextual factors in the dismissal of newly appointed CEOs. Overall, I seek to address three main research questions, which I illustrated in Figure I-1.

Figure I-1. Research structure

Control mechanisms	Tenure perspective	
	Static	Dynamic
Internal	First research question: How do specialized knowledge and monitoring incentives in the firm's internal governance structure affect executive dismissal?	
External	Second research question: How do financial analysts affect CEO dismissal and is their influence contingent on their personal and organizational reputation?	Third research question: How do financial analysts affect new CEO dismissal and does their impact depend on certain contextual factors?

***First research question:** How do specialized knowledge and monitoring incentives in the firm's internal governance structure affect executive dismissal?*

Previous research has often questioned the effectiveness of internal control mechanisms in making executive replacements (e.g., Daily et al., 2003; Mace, 1986; Useem, 2003; Westphal & Fredrickson, 2001). However, scholars in this context have largely focused on the board as the only internal monitor as well as on the relation between board effectiveness and certain structural board characteristics. Systematic evidence on the effect of specialized knowledge and monitoring incentives in the broader internal governance structure on executive dismissal remains scarce. In this research question, I thus propose that specialized knowledge of outside directors or the CEO, which I measure with the degree of financial expertise, represents an influencing factor in the decision whether to dismiss the firm's chief financial officer (CFO). Moreover, I argue that financial expertise is especially likely to prompt a CFO dismissal decision when outside directors or the CEO hold significant monitoring incentives, which I measure with the level of stock ownership.

***Second research question:** How do financial analysts affect CEO dismissal and is their influence contingent on their personal and organizational reputation?*

As suggested in the first research question, an organization is likely to be ineffective at making managerial replacements, if specialized knowledge and monitoring incentives

are not sufficiently present in the firm's internal governance structure. However, previous research has shown that external control mechanisms as disciplines of last resort can also sanction corporate executives (e.g., Wiersema & Zhang, 2011). In this research question, I propose that corporate boards consider analyst recommendations beyond classic firm performance measures in their CEO dismissal decisions. Moreover, I argue that a negative average analyst recommendation is especially likely to prompt a CEO dismissal decision by corporate boards when analysts are perceived to be of higher quality, as indicated by their personal or organizational reputation.

Third research question: *How do financial analysts affect new CEO dismissal and does their impact depend on certain contextual factors?*

Importantly, scholars have found that a CEO faces a higher dismissal risk in the early years of his or her tenure (Shen, 2003; Shen & Cannella, 2002a; Zhang, 2008). However, evidence on the influence of external control mechanisms such as financial analysts on early dismissal decisions remains scarce. In this research question, I thus examine whether analyst recommendations also affect the board's assessment of a newly appointed CEO and ultimately the likelihood of his or her dismissal. Specifically, I argue that a reduction in the average analyst recommendation after the successor announcement increases the likelihood of new CEO dismissal independent of post-succession corporate performance. Moreover, I propose that the board of directors is especially likely to take action as a response to a reduction in the average analyst recommendation after the announcement of the successor when the information asymmetry between the new CEO and the board is high or when the average analyst recommendation is perceived to be more valuable.

Given the pivotal role of the CEO as the most powerful executive within a modern corporation (Daily & Johnson, 1997; Finkelstein et al., 2009; Pitcher, Chreim, & Kisfalvi, 2000), I highlight the CEO as the key corporate executive throughout the dissertation. In academia and in practice, the CEO is described as the individual with a general responsibility for the strategy and performance of the entire organization (Finkelstein et al., 2009), and he or she has thus been characterized as a firm's deci-

sion-maker and chief cognizer (Calori, Johnson, & Sarnin, 1994). In the first research question on the effectiveness of internal control mechanisms, I seek to provide a more complete theoretical picture of the firm's internal governance structure by introducing the role of the CEO as a monitor of other top management team (TMT) members. I thereby emphasize the dismissal of the CFO because the CFO – as the highest functional expert in a firm (Drazin & Rao, 1999) – has well-defined, specialized knowledge (Gore et al., 2011; Li, Sun, & Ettredge, 2010), which allows me to better identify directors and CEOs with the corresponding knowledge area to monitor and evaluate the executive's actions and decisions. In the second and third research questions on the role of external control mechanisms, I focus on the relation between the board of directors and financial analysts by investigating the determinants of CEO dismissal consistent with Wiersema and Zhang (2011) and Zhang (2008).

3 Research approach

Consistent with a large body of research on executive dismissal, I use US archival data to empirically address the proposed research questions (e.g., Shen & Cannella, 2002a; Wiersema & Zhang, 2011; Zhang, 2006, 2008). The sample of this dissertation was drawn from the population of large, publicly traded US companies listed on Standard and Poor's S&P 500 index and covers the years between 1997 and 2009. I focus on S&P 500 companies in order to ensure sufficient executive biographical transparency and to be able to include firms that have widely traded stocks (namely those followed by financial analysts). The original sample consists of 392 companies over a 12-year period (3,981 firm-year observations), which exhibit no significant differences in terms of sales or assets compared with the entire S&P 500 population.

For each research question, I use tailored sub-datasets depending on the specific data requirements. For example, the first research question asks how specialized knowledge and monitoring incentives in the firm's internal governance structure affect executive dismissal and, therefore, requires detailed information on the functional backgrounds of directors and CEOs as well as the corresponding time-varying stock ownership data.

The second research question, however, emphasizes the role of financial analysts and their personal and organizational reputation in the dismissal context and, therefore, requires data on stock recommendations at an individual analyst level as well as information on analyst reputations. The third research question on the impact of financial analysts on new CEO dismissal again requires analyst data but additionally needs to identify newly appointed CEOs and must exclude CEOs from the sample who were already in office at the beginning of the study period. The dataset for each research question will be introduced in greater detail in the respective chapters.

In order to create those sub-datasets, I collected archival data from various sources. For example, I hand-collected information on senior executive successions as well as biographical information on executives and directors from S&P's Register of Corporations, Directors and Executives, Marquis Who's Who, corporate proxy statements and press articles published in the Dow Jones Factiva and LexisNexis databases. I collected data on firm performance and other firm characteristics from Compustat and data on analyst recommendations and characteristics from the Institutional Brokers' Estimate System (I/B/E/S) and the *Institutional Investor* magazine. The corresponding chapters of this dissertation introduce the data sources in greater detail.

Subsequently, I analyzed the datasets using empirical techniques that fit to the methodological requirements of each research question. To address the first research question on internal corporate governance I used a continuous time, non-parametric event history analysis, thereby addressing the frequent calls for longitudinal succession studies (Datta & Rajagopalan, 1998; Finkelstein et al., 2009). Consistent with Wiersema and Zhang (2011), I employed a random effects xtlogit model to investigate the relation between stock recommendations and CEO dismissal in the second research question. I then addressed the third research question on new CEO dismissal with a discrete time event history analysis, consistent with Zhang (2008). I also provide a more detailed description of the corresponding analytical methodologies in the following chapters of this dissertation.

I want to acknowledge that the data collection for this dissertation was a joint effort between my doctoral research colleague Stefan Görgens and me. While Stefan and I both aim to advance the phenomenon of executive succession in our dissertations, we focus on different succession stages. In particular, I examine the precipitating factors of executive dismissal, which is an important element of the departure stage. In contrast, Stefan investigates the subsequent succession stages in his dissertation, i.e., the selection of a successor and its consequences. Thus, although the themes of our dissertations fall under the general umbrella of succession, both dissertations differ in their research motivation and focus, their underlying theory and their specific data and methodological requirements.

One important empirical challenge in this dissertation was the distinction between voluntary and involuntary turnover to be able to identify executive dismissals. For example, Walsh and Seward (1990:429) noted that “executive departures are typically choreographed to preserve the integrity of both the firm and the departing executive”. Warner, Watts and Wruck (1988) found in a sample of 230 executive departures that only one executive was reported to have been fired by *The Wall Street Journal*. In identifying the type of executive departure, previous research has often relied on the executive’s age at departure. This approach can be problematic since an executive’s age may not adequately represent the nature of the departure. Instead, in this dissertation I used a detailed method to identify the exact type of departure. This sophisticated approach to classifying departures as dismissals is based on the well-established classification schemes of Weisbach (1988), Parrino (1997) and Farrell and Whidbee (2003). More precisely, I used business news reports from two years before the departure to two years after the departure to identify the circumstances under which the executives left office. In line with a large body of succession research, an executive departure was coded as a dismissal only if a) the executive was directly reported as having been fired or ousted; b) the executive was reported as having resigned unexpectedly or immediately owing to poor performance; c) the executive was reported as having resigned because of policy and personality disagreements; d) the executive was reported as

having resigned owing to a scandal; or e) the departure of the executive was for undisclosed personal reasons.

Importantly, I also want to demarcate the theoretical boundaries of this dissertation. By applying agency theory (Jensen & Meckling, 1976) as the theoretical lens throughout this dissertation, my work relies on the assumptions of this theory (for a review, see Eisenhardt, 1989). The core assumption of agency theory is that individuals are rational actors who seek to maximize their individual utility (Eisenhardt, 1989). The agency perspective, therefore, implies that executive dismissal occurs as the ultimate sanction against opportunistic managerial behavior resulting from the economic model of man (Cannella & Monroe, 1997; Huson et al., 2001). This focus on the issue of managerial opportunism treats managers as competent decision makers who possess all necessary knowledge and skills upon appointment (Hendry, 2002). Thus, according to agency theory, managerial competence is either irrelevant or invariant over time (Hendry, 2002; Shen, 2003). Grounded in these assumptions, agency theorists emphasize the control role of governance mechanisms with the board as the “ultimate internal monitor [...] whose most important role is to scrutinize the highest decision makers within the firm” (Fama, 1980:294).

Several scholars have challenged the simplistic view of human nature in agency theory, for example by arguing that many managers are rather dutiful stewards who intrinsically behave in the interests of shareholders (Daily et al., 2003; Davis, Schoorman, & Donaldson, 1997; Donaldson, 1990; Shen, 2003). Further, Davis et al. (1997) argued that treating managers as opportunistic agents may constrain the development of effective collaborative working relationships with their superiors. In addition, Hendry (2002) challenged the agency view on managerial competence by arguing that executives are rather limited in their competence to meet shareholder objectives than in the potential misrepresentation of their competence. Consequently, Walsh and Steward (1990) suggested that agency problems may also arise from a lack of managerial ability. Proponents of alternative approaches to corporate governance, therefore, have argued that governance mechanisms should empower and advise rather than discipline and monitor (cf. Cruz, Gómez-Mejía, & Becerra, 2010).

In this dissertation, I sought to explain the structure of corporate governance mechanisms that helps to control managerial behavior consistent with the central tenet of classical agency theory (Eisenhardt, 1989). However, I also aimed to advance the traditional agency perspective by developing theoretical extensions in the context of executive dismissal. For instance, I sought to highlight the costs of vigilant control by examining how internal and external control mechanisms may complement or substitute one another. Likewise, I aimed to shed more light on the effectiveness of governance practices in modern corporations by detailing how the broader governance context may enable or constrain executive dismissals. The majority of previous succession research has consistently followed an agency perspective to explain executive dismissal (for an overview, see Finkelstein et al., 2009). Consequently, the application of agency theory also allowed me to directly expand upon those findings and thereby ensure better generalizability.

4 Outline of dissertation

This dissertation is organized into five chapters beginning with this introductory chapter summarizing the motivation of the research, research questions, corresponding research approach and dissertation outline. Chapter 2, 3 and 4 comprise three self-contained essays each addressing one of the derived research questions. Chapter 2 examines how specialized knowledge and monitoring incentives within the internal governance structure affect executive dismissal. Chapter 3 examines whether the reputations of financial analysts moderate the board's decision to dismiss a CEO in response to stock recommendations. Chapter 4 examines whether the board of directors considers analyst recommendations in its decision to dismiss a newly appointed CEO and highlights the contextual factors that strengthen this relationship. Chapter 5 then recaps on the purpose of the dissertation and summarizes and compares the main results. Subsequently, the chapter discusses the overall contributions and implications for practice before closing by presenting the limitations of this dissertation and suggesting fruitful avenues for future research.

II. The impact of financial expertise and stock ownership in the firm's internal governance structure on CFO dismissal

The following chapter analyzes how specialized knowledge and monitoring incentives in the firm's internal governance structure affect executive dismissal. Building on agency theory, I argue that the financial expertise of outside directors or the CEO represents an influencing factor in the decision whether to dismiss the CFO. Moreover, I suggest that financial expertise is especially likely to prompt a CFO dismissal when outside directors or the CEO have significant stock ownership. I test the hypotheses using a large sample of firms listed on the S&P 500 index for the 1998–2008 time period. Empirical results strongly support most of these hypotheses.

Overall, this chapter provides a more complete picture of the firm's internal governance structure by explicitly distinguishing between the board of directors and the CEO as monitors of the CFO. It also provides a novel perspective to previous succession and governance research by examining the implications and interdependencies between specialized knowledge and monitoring incentives with regard to executive dismissal. I presented the findings of this chapter at the second workshop of the European Institute for Advanced Studies in Management on top management teams and business strategy research in Istanbul, Turkey in March 2011.

1 Introduction

The decision whether to replace an executive is pivotal for an organization because it can have far-reaching implications on its financial and operational success (Huson et al., 2001). Executive dismissal has, therefore, long been a subject of interest for management researchers (for a review, see Finkelstein et al., 2009; Giambatista et al., 2005; Kesner & Sebor, 1994). Following agency theory, scholars have argued that executive dismissals can ultimately sanction managerial behavior (Gabarro, 1987; James & Soref, 1981; Walsh & Seward, 1990). A large body of research in this regard has shown that executive dismissal is particularly relevant when monitoring¹ reveals that an executive has engaged in firm value-reducing behavior (Boeker, 1992; Giambatista et al., 2005; Kesner & Sebor, 1994; Ocasio, 1994; Tushman, Virany, & Romanelli, 1989; Weisbach, 1988).

An important research stream has examined how monitors vary in their effectiveness in making managerial replacements (e.g., Halebian & Rajagopalan, 2006; Walsh & Seward, 1990; Weisbach, 1988; Westphal & Fredrickson, 2001). These studies have largely focused on the presence of monitors with stronger monitoring incentives, such as significant stock ownership, in order to align the monitors' interests with those of shareholders (Hambrick & Jackson, 2000; Morck et al., 1989). Recent governance literature has suggested that effective monitors also need specialized knowledge in order to detect managerial opportunism (Carpenter & Westphal, 2001; Gore et al., 2011; Hillman & Dalziel, 2003; Kroll et al., 2008). However, this work has not been reflected in the executive dismissal context thus far. In particular, little is known about how specialized knowledge and monitoring incentives in the firm's internal governance structure affect executive dismissal.

In this essay, I seek to address this research gap by examining how the degree of financial expertise and stock ownership in the firm's internal governance structure affects the dismissal of the firm's CFO. In particular, I propose that the financial expertise of outside directors or the CEO represents an influencing factor in the decision

whether to dismiss the CFO. Moreover, I argue that financial expertise is especially likely to prompt a CFO dismissal when outside directors or the CEO hold significant shareholdings.

I focus on the CFO position for two reasons. First, the CFO is the highest functional expert in a firm (Drazin & Rao, 1999) as he or she has well-defined, specialized knowledge (Gore et al., 2011; Li et al., 2010). As a result, I can identify directors and executives with the required specialized knowledge to monitor the CFO's actions and decisions. Second, the CFO has fiduciary duties and responsibilities, which are homogeneous across firms and industrial sectors. For example, the CFO is traditionally responsible for implementing accounting principles, preparing financial reports and overseeing the corporate capital structure and financing decisions (cf. Bedard, Hoitash, & Hoitash, 2010; Hoitash, Hoitash, & Johnstone, 2009; Mian, 2001). Thus, by focusing on the CFO, I am able to use a cross-sectional sample to better generalize the findings.

This essay contributes to a better understanding of how agency conditions within a firm's internal governance structure affect executive dismissal. In particular, this essay makes three theoretical contributions. First, this essay contributes to the research stream on the monitoring of TMT members (e.g., Cruz et al., 2010; Werner & Tosi, 1995). In particular, this essay provides a more complete picture of the firm's internal governance structure by explicitly distinguishing between the board of directors and the CEO as monitors of the CFO. Second, it offers a novel perspective to previous research on executive succession (Coughlan & Schmidt, 1985; Warner et al., 1988; Weisbach, 1988) by showing that financial expertise and stock ownership in the firm's internal governance structure affect the executive dismissal decision. Third, this essay extends emerging research on the role of specialized knowledge in corporate governance (e.g., Carpenter & Westphal, 2001; Gore et al., 2011; Hillman & Dalziel, 2003) by examining the interdependencies between specialized knowledge and monitoring incentives in the firm's internal governance structure.

The remainder of this essay is organized into several sections. The next section describes the theoretical background and develops the hypotheses. Subsequently, I provide details on sample selection, measures and methods. I then report the results of the essay and present the discussion and ideas for future research. The last section concludes this essay.

2 Theoretical background

Agency theory (Eisenhardt, 1989; Fama & Jensen, 1983; Jensen & Meckling, 1976) has been the dominant theoretical perspective in succession research over recent decades (e.g., Denis, Denis, & Sarin, 1997; Weisbach, 1988; Wiersema & Zhang, 2011; Zhang, 2008). Agency theorists have argued that goal conflicts² and information asymmetries³ among principals and agents may lead to opportunistic agent behavior (Berle & Means, 1932; Eisenhardt, 1989; Jensen & Meckling, 1976). Thus, by monitoring agent behavior, principals are better able to detect and ultimately sanction potential opportunistic behavior (Huson et al., 2001; Walsh & Seward, 1990). According to agency theory, investments in monitoring allow principals to better observe and assess agents' behavior and thereby intervene if agents take firm value-destroying actions (Gomez-Mejia & Wiseman, 1997; Tosi & Gomez-Mejia, 1989). In this vein, agency theorists have particularly highlighted monitoring incentives as an important aspect of the firm's internal governance structure because these help align the principals' goals with shareholders' interests (Fama, 1980; Jensen & Meckling, 1976). However, Jensen and Meckling (1976:354) also noted that monitoring should "become specialized to those institutions or individuals who possess comparative advantages in these activities". Consequently, agency theorists have argued that the presence of specialized knowledge translates into information advantages, which can reduce the extent of information asymmetry between principals and agents (Fama & Jensen, 1983).

Empirical evidence on executive succession that supports these theoretic predictions has largely focused on the relation between board composition and executive dismissal.

In particular, a large body of research has shown that outside directors are more likely than are inside directors to dismiss executives (Boeker, 1992; Coughlan & Schmidt, 1985; Warner et al., 1988; Weisbach, 1988). For example, scholars have suggested that outside directors are less beholden to top executives than are inside directors and may feel extraordinary pressure to exercise control, resulting in a higher frequency of executive dismissal (cf. Fredrickson et al., 1988). Moreover, previous work has suggested that large shareholders have higher incentives to monitor and assess executives in order to protect their personal wealth (Alchian & Demsetz, 1972; Shleifer & Vishny, 1986; Zald, 1969). Research in this context has particularly related the stock ownership of outside directors to more effective monitoring (Hambrick & Jackson, 2000; Mizruchi, 1983; Tosi & Gomez-Mejia, 1989). Consequently, in their long-term study, Huson et al. (2001) linked changes in monitoring incentives measured as stock option grants to long-term trends in turnover decisions.

While monitoring incentives within the firm's internal governance structure are likely to be important for the decision whether to dismiss an executive, an emerging research stream has suggested that specialized knowledge may also be required to assess whether the executive's behavior might be placing firm value at risk. For example, Carpenter and Westphal (2001) in their study on network ties argued that monitors most likely need relevant experience to effectively exercise control. Gore et al. (2011) proposed that specialized knowledge in the firm's internal governance structure reduces the firm's reliance on incentive compensation but prompts stronger monitoring. Thus, if monitors possess specialized knowledge, they should be better able to detect firm value-destroying behavior by the agent, which may ultimately lead to a dismissal decision. To the best of my knowledge, this essay represents the first attempt to empirically examine the role of specialized knowledge in a dismissal context. In particular, I argue that the financial expertise and stock ownership of monitors is likely to have an important impact on the decision whether to dismiss the firm's CFO.

2.1 The impact of the financial expertise of outside directors and the CEO on CFO dismissal

Following an emerging research stream (e.g., Gore et al., 2011; Haynes & Hillman, 2010; Kroll et al., 2008), I expect the degree of financial expertise in a firm's internal governance structure to provide the foundation for an effective CFO dismissal decision.

At board level, agency theorists have argued that in particular outside board members are expected to engage in monitoring executives (Combs, Ketchen, Perryman, & Donahue, 2007) because outside directors emphasize firm performance (Daily et al., 2003; Fama & Jensen, 1983; Johnson, Ellstrand, & Daily, 1996) and do not want to diminish their personal reputation as directors (Fama & Jensen, 1983). Moreover, agency-based research has provided three reasons why outside directors with financial expertise are better able to understand and monitor the CFO's actions and policy decisions.

First, previous studies have shown that directors with financial expertise have an important influence on financial policy decisions. For example, Booth and Deli (1999) examined the characteristics of firms with financial directors and found that these firms have comparatively higher debt levels. Similarly, Lee, Rosenstein and Wyatt (1999) found that outside directors with financial expertise are associated with positive abnormal returns if the firm's access to capital is limited. Stearns and Mizruchi (1993) suggested that outside directors with finance expertise are also able to provide additional access to capital. Given their exceptional impact on various finance-related corporate outcomes, it is likely that outside directors with financial expertise also represent an influencing factor in the effective monitoring of financial experts such as the CFO.

Second, previous studies on audit committees have shown that audit committees with financial expertise are likely to improve financial reporting quality. For example, Abbott, Parker and Peters (2004) and Farber (2005) documented lower instances of earnings restatements, higher demand for audit services and lower likelihoods of financial fraud in firms that have financial expertise within their audit committees. Regulators

have thus stressed the need for financial expertise within corporate boards to ensure a better monitoring of executives (Jensen, Murphy, Wruck, & Field). For example, section 407 of the Sarbanes-Oxley Act (SOX) of 2002 states that “an understanding of generally accepted accounting financial statements” will lead to better board control and, therefore, will better serve the interests of shareholders. Thus, given that directors with financial expertise are better able to detect fraudulent behavior with regard to financial statements, it seems likely that financial expertise generally contributes to a more effective monitoring of the CFO.

Third, an emerging research stream has directly acknowledged that the financial expertise of directors may positively influence the monitoring effectiveness of the CFO. Chava and Purnanandam (2007) argued that directors with financial expertise are in a better position than those without such expertise to monitor the CFO’s actions and decisions on the firm’s capital structure. Gore et al. (2011) argued that boards with financial expertise (measured as the presence of a finance committee) are better able to reduce their reliance on contractual incentives with regard to the CFO than are those without. Moreover, anecdotal evidence has also supported the view that better board monitoring requires a higher degree of specialized knowledge. For example, Finkelstein and Mooney (2003:106) quoted an experienced director in their study: “If you want to understand housewives, then you’d better have somebody who understands housewives sitting on the board”.

In summary, I propose that a firm with a higher share of outside directors with financial expertise is better able to detect firm value-destroying behavior by the CFO, ultimately increasing the likelihood of CFO dismissal. Thus, the financial expertise of outside board members should enable them to better assess the CFO’s decisions, thereby detecting any potential opportunism by the CFO and resulting in a higher likelihood of CFO dismissal.

Hypothesis 1a: The financial expertise of outside directors is positively related to the likelihood of CFO dismissal.

At the executive level, three important reasons suggest that a CEO with financial expertise is better able to identify the potential opportunistic actions of the CFO. First, given the “natural process of monitoring from higher to lower levels of management” (Fama, 1980:293), the CEO can be expected, as the direct superior officer of the CFO, to fulfill an internal monitoring function. The CEO delegates work to the CFO, who then performs that work (e.g., Cruz et al., 2010; Werner & Tosi, 1995). However, the CFO may act opportunistically, given the potential incongruence of goals (e.g., differences in risk preferences) and existence of information asymmetries (e.g., shirking of efforts) between both parties (Cruz et al., 2010; Hill & Phan, 1991; Hill & Snell, 1989). Thus, the CEO may have an interest in sanctioning any managerial opportunism by the CFO in order to achieve his or her own goals (Fama & Jensen, 1983). Within this principal–agent relationship, Fama (1980) argued that the effectiveness of internal monitoring by superiors depends on their ability to elicit and measure the productivity of lower managers, which suggests that financial expertise likely improves the CEO’s monitoring of the CFO. Similarly, Gore et al. (2011) posited that a CEO with financial expertise can reduce the firm’s reliance on contractual incentives with the CFO.

Second, a number of studies have established a link between the functional background of the CEO and his or her specific attitudes or behavioral tendencies, suggesting that finance expertise may allow the CEO to better understand strategic decisions related to the finance function. For example, Jensen and Zajac (2004) found that a CEO with a finance background is more likely to engage in high levels of diversification. In addition, Hayes and Abernethy (1980) and Fligstein (1990) argued that a CEO with a dominant functional background in finance perceives a firm as a portfolio of multiple businesses and is more likely to emphasize growth through diversification and acquisitions. Thus, given that a CEO with financial expertise is better able to understand and exercise financial policy decisions, it seems likely that financial expertise generally contributes to a better understanding of the CFO’s actions and decisions.

Third, anecdotal evidence has suggested that the relationship between the CEO and CFO also contains significant information asymmetries. For example, Gerry Czarnecki, a State Farm director, stated that “not every CEO has been in the financial function,

therefore you may well be financially literate, but you may not be a financial expert, and I think there's a distinction" (Plitch & Ceron, 2003).

In summary, a CEO with finance function experience represents a financial expert, who can better understand and thus monitor the CFO's actions and policy decisions. Therefore, the financial expertise of the CEO should enable him or her to better assess the CFO's decisions, thereby detecting any potential opportunism by the CFO and thus resulting in a higher likelihood of CFO dismissal.

Hypothesis 1b: The financial expertise of the CEO is positively related to the likelihood of CFO dismissal.

2.2 The impact of the stock ownership of outside directors and the CEO on CFO dismissal

While financial expertise in the firm's internal governance structure is likely to play an important role for the decision whether to dismiss the CFO, the monitors' motivations will also influence the effectiveness of the monitoring function. In particular, I expect the degree of stock ownership in a firm's internal governance structure to affect the likelihood of CFO dismissal.

At board level, agency theory predicts that outside directors with high shareholdings are more motivated to scrutinize the CFO on behalf of shareholders. A large body of governance research has argued that the degree to which outside directors dominate the board represents an important determinant of stronger monitoring (e.g., Finkelstein & D'Aveni, 1994; Kosnik, 1987; Wade, O'Reilly, & Chandratat, 1990; Weisbach, 1988). Indeed, boards dominated by outside directors are less likely to adopt poison pills (Brickley, Coles, & Terry, 1994), offer golden parachutes (Singh & Harianto, 1989) or reprice underwater options (Pollock, Fischer, & Wade, 2002) but are more likely to accept takeover bids (Buchholtz & Ribbens, 1994). Moreover, agency-based research has suggested that the presence of outside directors may result in improved performance (e.g., Wright, Kroll, & Elenkov, 2002). However, to monitor executives outside directors need to invest significant time and effort in assessing the information

provided by management and stakeholders (Ferris, Jagannathan, & Pritchard, 2003; Young, Buchholtz, & Ahlstrom, 2003). Moreover, outside directors also face potential conflicts of interest that might reduce their motivations to use the information at hand to detect managerial opportunistic behavior (Kumar & Sivaramakrishnan, 2008). Thus, Hillman and Dalziel (2003) concluded that outside directors need to hold stock ownership to diligently monitor top management.

As a result, agency-theoretic work has argued that stock ownership helps align outside board members' interests with those of shareholders in order to ensure the active supervision of management (Hambrick & Jackson, 2000; Hillman & Dalziel, 2003; Jensen, 1993). For example, Hambrick and Jackson (2000) argued that stock ownership not only increases the vigilance of outside directors but also the time and attention they devote to the firm. Similarly, Morck, Shleifer and Vishny (1989) showed that ownership by outside directors is related to firm value (with Tobin's Q as a proxy for firm value), and Shivdasani (1993) provided evidence that ownership by unaffiliated outside directors is negatively related to the probability that a firm will be subject to a hostile takeover attempt. Consistently, Beatty and Zajac (1994) found that stock ownership provides directors with an incentive to protect shareholders' interests in initial public offerings. In summary, when outside directors hold substantial stock ownership, their personal wealth is closely tied to that of their shareholders. Thus, I propose that outside directors with a high stock ownership are better motivated and incentivized to detect firm value-destroying behavior by the CFO, ultimately increasing the likelihood of CFO dismissal.

Hypothesis 2a: The level of outside director stock ownership is positively related to the likelihood of CFO dismissal.

At the executive level, agency theorists have suggested that high stock ownership should motivate the CEO to engage in actions that maximize shareholder value, such as effectively monitoring subordinates (e.g., Fama, 1980). Previous literature in this context has shown that a CEO with significant stock ownership is more likely to accept lower pay (Gomez-Mejia, Tosi, & Hinkin, 1987), less likely to resist takeover

threats (Buchholtz & Ribbens, 1994) and less likely to have options repriced (Pollock et al., 2002). Thus, I expect a CEO, who is motivated by higher equity rewards for achieving superior firm performance, to emphasize shareholders' interests over his or her own job security (Shleifer & Vishny, 1989). Consequently, a shareholder-aligned CEO will be more effective at monitoring the CFO than a non-aligned CEO. For instance, instead of blindly approving important proposals by the CFO, the CEO might demand justifications and explanations and constructively criticize if required (Pettigrew & McNulty, 1998). In addition, close monitoring by the CEO will also involve an increased assessment of the performance outcomes of CFO policy decisions, which may lead to a sanction of the CFO if his or her decisions have negative performance effects (Fama & Jensen, 1983; Westphal, 1999). Thus, monitoring by a CEO with high stock ownership should enable him or her to better detect opportunistic behavior by the CFO, ultimately increasing the likelihood of CFO dismissal. As a result, I propose that the higher stock ownership of the CEO increases the likelihood of CFO dismissal.

Hypothesis 2b: The level of CEO stock ownership is positively related to the likelihood of CFO dismissal.

2.3 The interdependencies between financial expertise and stock ownership

While financial expertise and stock ownership in the firm's internal governance structure by themselves are truly important for deciding whether to dismiss the CFO, I expect more effective monitoring if both agency conditions apply. A vast array of research drawing from two disciplines has largely supported this proposition.

First, psychology researchers applying expectancy theory (Schwab, Olian-Gottlieb, & Heneman, 1979; Van Eerde & Thierry, 1996) have long suggested that incentives are moderating factors between an individual's ability and his or her performance (Hunter & Hunter, 1984). They have argued that incentivizing an individual will not improve individual performance if the individual is unskilled or unable to perform the task (Schwab et al., 1979; Van Eerde & Thierry, 1996). Thus, an individual's performance

is likely to be a function of both ability and the desirability of the reward (Schwab et al., 1979; Van Eerde & Thierry, 1996).

Second, in a similar vein, management researchers have applied these sociopolitical propositions to analyze the behavior of monitors. For example, Zald (1969) was among the first to posit that incentives influence the monitors' motivations to use their individual characteristics for the shareholder's benefit. Recent research in this context has argued that the relationship between incentives and effective governance mechanisms depends on the required specialized knowledge (Carpenter & Westphal, 2001; Gore et al., 2011; Hillman & Dalziel, 2003; Kroll et al., 2008). For example, Kroll et al. (2008) drew from agency theory to suggest that the stock ownership of monitors is a necessary but not a sufficient condition for optimal contributions to acquisition performance. Rather, they argued that industry knowledge and acquisition expertise may be required to improve acquisition performance. Hillman and Dalziel (2003) suggested that the knowledge to monitor provides the foundation for effective monitoring, while incentives will affect the magnitude and direction of the relationship between knowledge and monitoring.

I thus expect that the stock ownership of outside directors or the CEO will moderate the relationship between the degree of financial expertise in the firm's internal governance structure and the dismissal of the CFO.

Hypothesis 3a: The level of stock ownership of outside directors moderates the positive relationship between financial expertise of the outside directors and the likelihood of CFO dismissal.

Hypothesis 3b: The level of stock ownership of the CEO moderates the positive relationship between financial expertise of the CEO and the likelihood of CFO dismissal.

3 Methods

3.1 Data and sample

The sample of this essay was randomly drawn from the population of large, publicly traded US companies listed on the S&P 500 index for at least one year between 1998 and 2008. I decided to use this timeframe because it covers the years before and after the enactment of the SOX in 2002 and should, therefore, support the generalization of the findings. I focused on S&P 500 companies because I needed to ensure sufficient biographical transparency over the entire careers of the CEOs and the outside board members in the companies of the sample. The sample consisted of 346 companies and exhibited no significant differences in terms of sales or assets compared with the entire population. Within this sample, I identified 569 CFO successions. After excluding observations with missing information, the final sample consisted of 474 CFO successions, with 67 dismissals and 3,026 CFO years for data analysis.

This essay used secondary data from published and web-based resources. I gathered information on senior executive successions as well as biographical information on CFOs, CEOs and outsider board members from S&P's Register of Corporations, Directors, and Executives, Marquis Who's Who, corporate proxy statements and press articles published on the Dow Jones Factiva database. I collected data on firm performance and other firm characteristics from Compustat.

3.2 Dependent variables

CFO dismissal. The dependent variable of this essay is CFO dismissal. My approach to classifying turnovers as dismissals is based on those of Weisbach (1988), Parrino (1997) and Farrell and Whidbee (2003). I classified as dismissals all CFO changes other than those arising from retirement, death, illness, those involving a move to a prestigious position within or outside the firm or disclosed personal reasons.

I relied upon news reports from two years before the departure to two years after the departure to identify the circumstances under which the CFOs left office. Of the 474

CFO successions, there were 138 cases in which the CFO left office but kept another position of similar or higher responsibility in the firm, 120 cases in which the CFO retired, 77 cases in which the CFO accepted a similar position at another firm, 59 cases in which the CFO departed for disclosed personal reasons, eight cases in which the CFO departed owing to mergers or acquisitions and five cases in which the CFO left office owing to death or health issues. These 407 cases were identified as routine turnovers. I identified 23 cases in which the CFO was directly reported as having been fired or ousted, 18 cases in which the CFO was reported as having resigned unexpectedly or immediately owing to poor performance, five cases in which the CFO was reported as having resigned because of policy and personality disagreements, 16 cases in which the CFO was reported as having resigned owing to a scandal and five cases where the departure was for undisclosed personal reasons. I identified these 67 cases as dismissals. Based on this classification, I created a dichotomous time-varying variable – CFO dismissal – which I coded 1 in a year in which a CFO was dismissed and 0 otherwise. Altogether, 276 CFOs remained in office in 2008. These were included in the sample and treated as right-censored cases. An alternative widely used approach to identifying top management dismissals relies on age and continuity as a board member (Shen & Cannella, 2002a; Zhang, 2008). However, this approach seems to be inadequate for the classification of CFO departures given that only 11% of the CFOs in the described sample held board positions at any time during their tenures.

3.3 Independent variables

Outside director financial expertise. I measured the variable outside director financial expertise as the percentage of outside directors with financial expertise. Two steps were required to construct this variable. First, the outside directors of each firm had to be identified. For this purpose, I verified whether a firm had one or more outside board members in the fiscal year preceding the turnover of the CFO. Consistent with Weisbach (1988), Byrd and Hickman (1992) and Dalton, Daily, Ellstrand, and Johnson (1998), I classified any director who was an employee of the firm as an insider. In addition, I classified nonemployee directors who were former officers, consultants,

commercial bankers, investment bankers, lawyers, insurance company executives or were related to an officer of the firm as insiders. I classified all other nonemployee directors as outsiders. Second, the financial expertise of the outside board members had to be determined. I accredited financial expertise to those outside board members who at any time during their careers held primary employment titles that could be assigned to a financial function or who gathered experience in a company belonging to the financial services sector (Chava & Purnanandam, 2007; DeFond, Hann, & Hu, 2005). I updated this variable yearly. I gathered the data on outside director financial expertise from annual corporate proxy statements, 10-K reports, Marquis Who's Who and press articles. For the sample, the variable outside director financial expertise ranged from 0 to 0.88, with a mean of 0.14 and a standard deviation of 0.14.

Outside director stock ownership. I measured the variable outside director stock ownership as the percentage of the total number of ordinary shares retained by outside directors (Filatotchev & Bishop, 2002). I updated this variable yearly. I gathered the data on outside director stock ownership from annual corporate proxy statements and 10-K reports. For the sample, the variable outside director stock ownership ranged from 0 to 22.4, with a mean of 0.52 and a standard deviation of 1.52.

CEO financial expertise. I measured the variable CEO financial expertise as the percentage of the CEO's career spent in financial positions (Bunderson & Sutcliffe, 2002). Similar to outside director financial expertise, I considered as a financial position any position in which the CEO held a primary employment title that could be assigned to a financial function or any position in a company belonging to the financial services sector (Chava & Purnanandam, 2007; DeFond, Hann, & Hu, 2005). I updated this variable yearly. I gathered the data on CEO financial expertise from annual corporate proxy statements, Marquis Who's Who and press articles. For the sample, the variable CEO financial expertise ranged from 0 to 1, with a mean of 0.08 and a standard deviation of 0.19.

CEO stock ownership. I measured the variable CEO stock ownership as the percentage of the total number of ordinary shares retained by the CEO. I updated this variable

yearly. I gathered the data on CEO stock ownership from annual corporate proxy statements and 10-K reports. For the sample, the variable CEO stock ownership ranged from 0 to 24.42, with a mean of 0.79 and a standard deviation of 2.49.

3.4 Control variables

Firm size. I controlled for firm size, because larger firms may have more formalized or institutionalized dismissal processes (Ocasio, 1999; Vancil, 1987). In the analysis, I measured firm size as the natural logarithm of firm sales. I updated this variable yearly. As an alternative, I measured firm size as the natural logarithm of the total number of employees. Both measures of firm size produced consistent results. I gathered the data on firm size from Compustat.

CFO age. I controlled for the age of the CFO because firms may have a mandatory retirement policy. Controlling for the age of the CFO helps differentiate retirement from involuntary succession (Ocasio, 1994; Puffer & Weintrop, 1991), thus strengthening the results. I measured CFO age as the number of years between the fiscal year and the year in which the CFO was born. I updated this variable yearly. I gathered the data on CFO age from annual corporate proxy statements, Marquis Who's Who and press articles.

CFO board membership. I controlled for the board membership of the CFO because research has shown that managers who are members of the board of directors are typically more influential and might consequently be subject to a lower risk of dismissal (Mizruchi, 1983). I coded CFO board membership 1 in years in which the CFO was a member of the firm's board and 0 otherwise. I updated this variable yearly. I gathered the data on CFO board membership from S&P's Register of Corporations, Directors, and Executives, Marquis Who's Who and annual corporate proxy statements.

CEO duality. I also controlled for CEO duality because research has shown that CEO duality can adversely affect the board's ability to fulfill its monitoring function (Finkelstein & D'Aveni, 1994). CEO duality occurs when the same person holds both

the CEO and board chairperson positions in a corporation (Rechner & Dalton, 1991). I coded CEO duality 1 in years in which the CEO was also the chairperson of the firm's board and 0 otherwise. I updated this variable yearly. I gathered the data on CEO duality from S&P's Register of Corporations, Directors, and Executives, Marquis Who's Who and annual corporate proxy statements.

Board size. I controlled for board size because previous research has suggested that smaller boards can operate more efficiently and, as a consequence, monitor more effectively (Jensen, 1993; Yermack, 1996). This argument suggests that a reduction in board size could be related to an increase in CFO dismissal likelihood. I measured board size as the count of all directors on the firm's board at the end of the fiscal year. I updated this variable yearly. I gathered the data on board size from annual corporate proxy statements and 10-K reports.

Board independence. I controlled for board independence because research has documented that outside directors are more likely to dismiss poor performing executives than are other directors (e.g., Weisbach, 1988). If outside directors are more likely to replace a poor performing executive, then the increase in outside director representation on the board should increase this effect (Huson et al., 2001). I measured board independence as the share of outside directors on the firm's board. I updated this variable yearly. I gathered the data on board independence from annual corporate proxy statements and 10-K reports.

Firm performance. I included firm performance in the analysis, because research has consistently shown that pre-succession firm performance can affect dismissal outcomes (e.g., Coughlan & Schmidt, 1985; Huson, Malatesta, & Parrino, 2004; Warner et al., 1988; Weisbach, 1988). I measured firm performance using both an accounting and stock performance measure adjusted by industry difference. I operationalized industry-adjusted firm return on assets (ROA) as the firm's ROA adjusted for industry median ROA excluding the focal firm (Huson et al., 2004). This measure of firm performance helped differentiate firms that were performing poorly in an absolute sense versus firms that were performing poorly relative to their respective industries. I

measured industry-adjusted stock return by the firm's total return to shareholders in the fiscal year preceding the succession minus the median stock return excluding the focal firm in the firm's core industry. I updated both variables yearly. I gathered the data on firm performance from Compustat.

CFO certified public accountant. I controlled for the professional qualifications of the CFO, in particular for the statutory title "certified public accountant", because previous studies have found a relationship between CFO qualifications and poor corporate outcomes (e.g., Aier, Comprix, Gunlock, & Lee, 2005; Li et al., 2010; Zhang, Zhou, & Zhou, 2007). In particular, controlling for CFO qualifications helped mitigate concerns that CFO dismissal was affected by differences in CFO quality or ability (cf. Gore et al., 2011). I coded the certified public accountant qualification of the CFO 1 if the CFO was a certified public accountant and 0 otherwise. I gathered the data on certified public accountant qualifications from annual corporate proxy statements, Marquis Who's Who and press articles.

Post-SOX period. I also controlled for the enactment of the SOX in 2002, which heavily impacted the recording and reporting functions supervised by a CFO (Li et al., 2010). As a consequence, CFO turnover substantially increased in the years since 2002 (Li et al., 2010). I thus added a dummy variable coded 1 if the year under investigation was after 2002 and 0 otherwise.

Time. I added 11 dummy variables to control for the year-related effects affecting CFO dismissal. In particular, I added variables for the years 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007 and 2008. The omitted year was 2006. In supplementary analyses, I dropped these 11 time variables and the results remained consistent with those reported in this essay.

3.5 Analytical methodology

I tested the hypotheses using a continuous time, non-parametric event history analysis to address the frequent calls for longitudinal studies in succession research (Datta &

Rajagopalan, 1998; Finkelstein et al., 2009). Event history analysis is a well-proven methodology for analyzing dynamic processes when the outcome of the process is a discrete event (Allison, 1984; Tuma & Hannan, 1979; Yamaguchi, 1991). The methodology was appropriate for this essay because it takes into account the effect of time (that is, CFO tenure) in its estimation. The use of event history analysis provides several important advantages for this analysis. First, the use of the continuous time approach allows me to explicitly consider time-dependent covariates (e.g., firm performance, financial expertise of outside board members and the CEO) in the model (Fischer & Pollock, 2004). Second, CFOs in the sample can voluntarily leave office during the study period and, consequently, they will no longer be subject to the risk of dismissal. This approach allows me to keep these CFOs in the sample until they leave office, thereby providing more rigorous analyses (Allison, 1984). Finally, some CFOs will still be in office at the end of the study period. The event history methodology adequately considers these right-censored cases in the data (Allison, 1984).

I specifically used the Cox (1972) proportional hazards model to test the hypotheses. This model does not assume a prespecified hazard function and, therefore, it is recommended when it is not known how a hazard rate depends upon time, or when the hazard rate is believed to be nonmonotonic with time. I used CFO tenure as the duration measure in the event history analysis. In order to permit the annual updating of the time-varying covariates, I divided CFO tenure into fiscal years (Ocasio, 1994; Ocasio & Kim, 1999). I included a robust variance estimator to account for the fact that a CFO may be observed in multiple intervals and that these observations are not independent (Fischer & Pollock, 2004).

4 Results

Table 1 reports the variable means, standard deviations and Pearson correlation coefficients for all observations (all CFO-years, $N = 3,026$). The magnitudes of the correlations do not suggest that multicollinearity is an issue. Table 2 summarizes the results of the Cox proportional hazard model predicting CFO dismissal. Specifically, Model 1

contains the control variables, Model 2 contains the base effects, Model 3 contains the moderating effect of outside director financial expertise and outside director stock ownership, Model 4 contains the moderating effect of CEO financial expertise and CEO stock ownership and Model 5 contains all effects. Overall chi-squares for the models indicate very strong model significance ranging from 119.69 ($p < .01$) in Model 1 to 223.05 ($p < .01$) in Model 5.

Hypothesis 1a predicts a positive relationship between outside director financial expertise and the likelihood of CFO dismissal. Model 2 and Model 4 show a significant and positive effect of outside director financial expertise ($b = 2.09$, $p < .05$ and $b = 2.21$, $p < .01$). Notably, the effect of outside director financial expertise is weaker and less significant when the moderating effect of outside director financial expertise and outside director stock ownership is included in Model 3 and Model 5 ($b = 1.49$, $p < .10$ and $b = 1.59$, $p < .10$). Thus Hypothesis 1a is strongly supported. Hypothesis 1b predicts a positive relationship between CEO financial expertise and CFO dismissal. Model 2 and Model 3 show a positive and significant effect of CEO financial expertise on the likelihood of CFO dismissal ($b = 1.36$, $p < .01$ and $b = 1.39$, $p < .01$). Again, the effects are weaker and less significant when the moderating effect of CEO financial expertise and CEO stock ownership is included in Model 4 and Model 5 ($b = 1.09$, $p < .05$ and $b = 1.13$, $p < .05$). However, overall Hypothesis 1b receives strong support.

Hypothesis 2a predicts a positive relationship between outside director stock ownership and CFO dismissal. Models 2 and 4 show a positive and significant effect of outside stock ownership on the likelihood of CFO dismissal ($b = 0.11$, $p < .05$ and $b = 0.11$, $p < .05$). This effect is not confirmed in Models 3 and 5, which contain the corresponding moderating terms ($b = -0.07$, n.s. and $b = -0.08$, n.s.). Thus, Hypothesis 2a receives only partial support. Hypothesis 2b expects a positive relationship between CEO stock ownership and the likelihood of CFO dismissal. Coefficients in all models show positive but not significant effects. Thus, Hypothesis 2b receives no support.

In order to test the moderating effect of outside director stock ownership on the relationship between outside director financial expertise and CFO dismissal as well as the

moderating effect of CEO stock ownership on the relationship between CEO financial expertise and CFO dismissal, I added moderation terms that were the product of the centered ownership variable and the centered financial expertise variable. In particular, Hypothesis 3a predicts a positive moderation effect of outside director stock ownership on the relationship between outside director financial expertise and CFO dismissal. The coefficient for this moderation effect is positive and significant in Models 3 and 5 ($b = 0.51, p < .05$ and $b = 0.52, p < .05$). Thus, Hypothesis 3a receives strong support.

Table II-1.
Variable means, standard deviations and correlation coefficients

Variable	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Firm size	8.81	1.20													
(2) CFO age	50.50	6.49	0.10												
(3) CFO board membership	0.01	0.12	0.00	0.08											
(4) CEO duality	0.68	0.30	0.12	0.02	0.03										
(5) Board size	11.82	2.64	0.40	0.04	0.03	0.01									
(6) Board independence	0.69	0.13	0.18	0.00	-0.07	0.18	0.11								
(7) Return on assets	0.00	0.07	0.06	0.02	0.01	0.00	0.03	-0.08							
(8) Total return to shareholders	0.16	2.19	0.03	-0.04	-0.01	0.02	0.01	0.02	-0.03						
(9) CFO certified public accountant	0.39	0.49	-0.17	-0.06	0.01	-0.04	-0.10	-0.04	-0.02	-0.01					
(10) Post-SOX period	0.50	0.50	0.16	0.05	0.01	0.11	-0.04	0.25	-0.03	0.04	0.00				
(11) Outside director financial expertise	0.14	0.14	0.03	-0.04	0.00	0.05	-0.05	0.15	-0.03	0.00	0.00	0.47			
(12) Outside director stock ownership	0.52	1.52	-0.11	-0.05	0.02	-0.01	0.04	-0.01	-0.01	-0.02	0.02	-0.02	0.07		
(13) CEO financial expertise	0.08	0.19	0.10	-0.02	-0.04	0.01	0.09	0.08	-0.01	0.04	-0.07	0.03	-0.02	-0.03	
(14) CEO stock ownership	0.79	2.49	-0.13	-0.06	-0.01	0.02	-0.11	-0.22	0.05	-0.02	-0.01	-0.08	-0.01	0.05	-0.10

N = 3,026. Correlations larger than 0.04 are significant at the level of $p < 0.05$, and those larger than 0.05 are significant at $p < 0.01$.

Table II-2.
Results of continuous time event history analyses predicting CFO dismissal^{a,b}

	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Controls</i>					
Firm size	0.52 *** (0.12)	0.53 *** (0.11)	0.53 *** (0.11)	0.56 *** (0.12)	0.56 *** (0.11)
CFO age	0.03 (0.02)	0.03 (0.02)	0.04 * (0.02)	0.03 (0.02)	0.03 (0.02)
CFO board membership	0.88 (0.75)	0.96 (0.69)	1.15 (0.75)	0.97 (0.70)	1.17 (0.75)
CEO duality	-0.37 (0.39)	-0.34 (0.40)	-0.31 (0.39)	-0.36 (0.39)	-0.34 (0.38)
Board size	-0.02 (0.06)	-0.03 (0.06)	-0.04 (0.06)	-0.02 (0.06)	-0.03 (0.06)
Board independence	1.76 (1.10)	1.99 * (1.17)	2.25 * (1.22)	2.05 * (1.16)	2.34 * (1.21)
Return on assets	-5.42 *** (0.99)	-5.31 *** (0.96)	-5.20 *** (0.98)	-5.25 *** (0.96)	-5.13 *** (0.99)
Total return to shareholders	0.01 (0.03)	0.01 (0.04)	0.01 (0.03)	0.01 (0.03)	0.01 (0.03)
CFO certified public accountant	0.25 (0.26)	0.32 (0.26)	0.35 (0.26)	0.29 (0.26)	0.32 (0.26)
Post-SOX period	0.85 * (0.47)	0.79 (0.52)	0.79 (0.53)	0.77 (0.52)	0.76 (0.52)
<i>Independent variables</i>					
Outside director financial expertise		2.09 ** (0.89)	1.49 * (0.89)	2.21 *** (0.86)	1.59 * (0.87)
Outside director stock ownership		0.11 ** (0.05)	-0.07 (0.13)	0.11 ** (0.06)	-0.08 (0.13)
CEO financial expertise		1.36 *** (0.44)	1.39 *** (0.43)	1.09 ** (0.49)	1.13 ** (0.48)
CEO stock ownership		0.05 (0.06)	0.06 (0.05)	0.04 (0.06)	0.05 (0.06)
<i>Interactions</i>					
Outside director financial expertise X outside director stock ownership			0.51 ** (0.25)		0.52 ** (0.26)
CEO financial expertise X CEO stock ownership				1.93 *** (0.74)	1.94 *** (0.67)
Wald Chi-square	119.69 ***	161.52 ***	200.13 ***	174.55 ***	223.05 ***
N	3,026	3,026	3,026	3,026	3,026

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

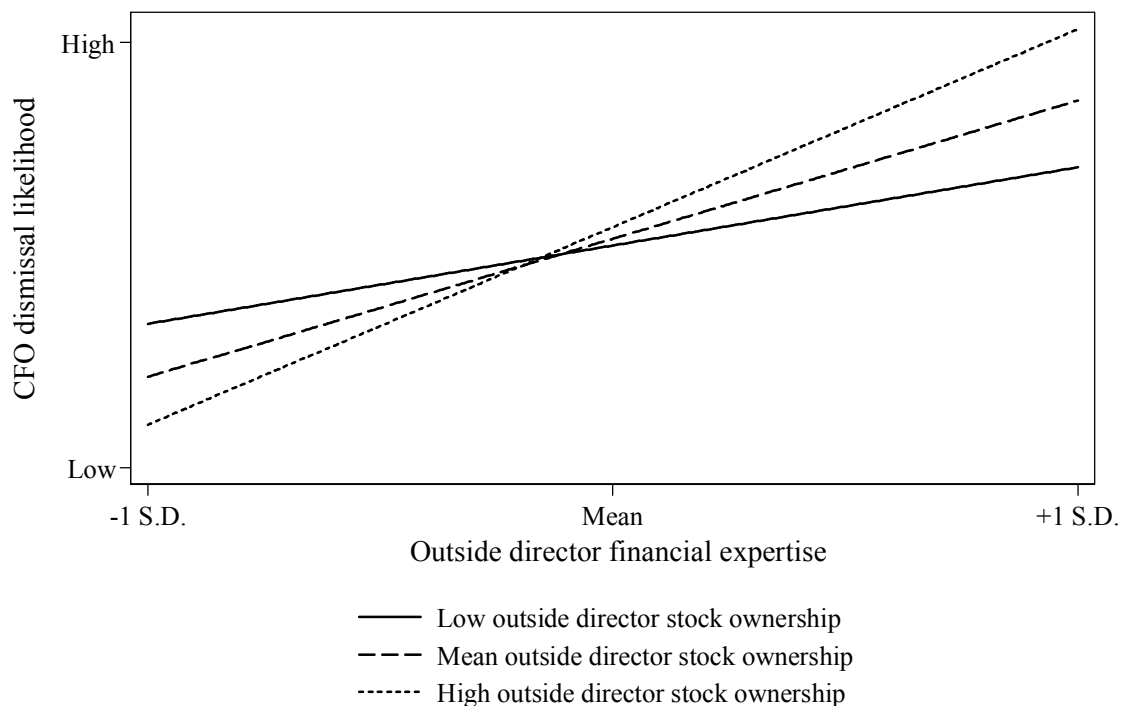
^a All models include time dummies.

^b Standard errors are in parentheses.

However, when estimating moderation effects in a statistical model with a binary outcome, one cannot solely rely on the direction and statistical significance of the moderation coefficient (Hoetker, 2007; Wiersema & Bowen, 2009). Therefore, I additionally graphed the significant moderation effect from Model 3 (Figure II-1). The

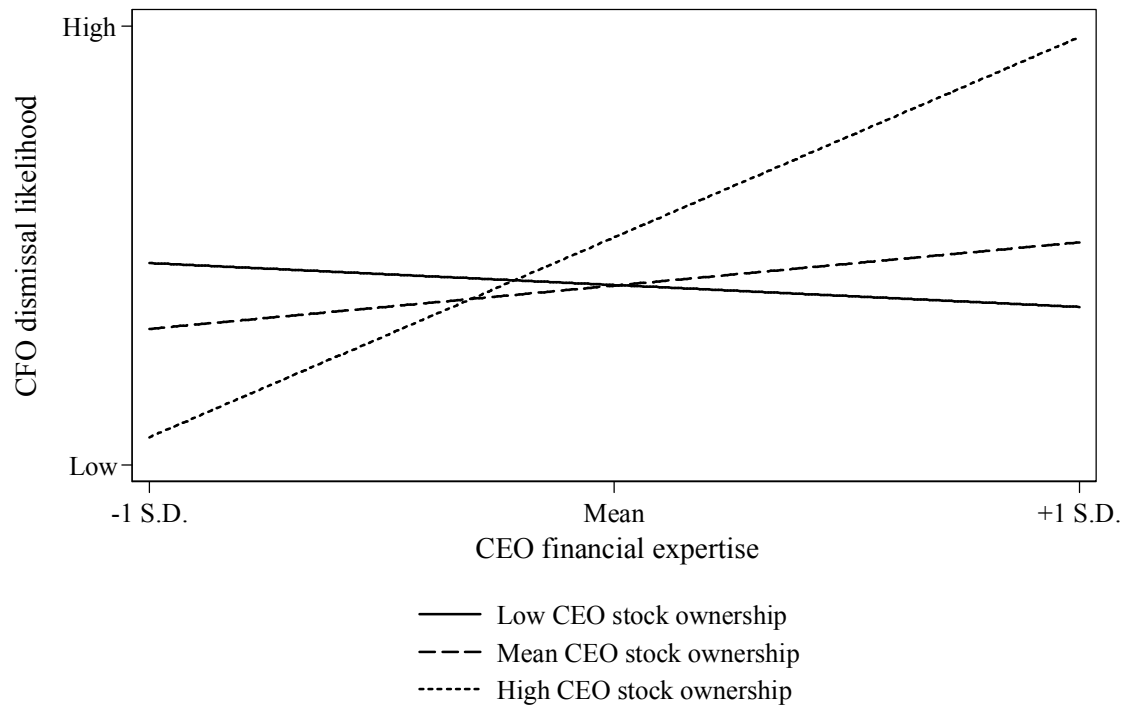
vertical axis represents the likelihood of CFO dismissal, while I graphed outside director financial expertise on the horizontal axis. For this purpose, all variables in the model, except for outside director financial expertise and outside director stock ownership, are constrained to mean values. I illustrate the moderating effects of high outside director stock ownership (mean plus one standard deviation (S.D.)), mean outside director stock ownership (mean) and low outside director stock ownership (mean minus one standard deviation). As indicated by the graph, high outside director stock ownership strengthens the effect of outside director financial expertise on CFO dismissal.

Figure II-1. Outside director financial expertise and CFO dismissal: the moderating effect of outside director stock ownership



Hypothesis 3b expects a positive effect of CEO stock ownership on the relationship between CEO financial expertise and CFO dismissal. Models 4 and 5 show positive and significant coefficients for this effect ($b = 1.93$, $p < .01$ and $b = 1.94$, $p < .01$). Thus, Hypothesis 3b receives strong support. Again, I graphically illustrate this effect in Figure II-2. The graph confirms that the effect of CEO financial expertise on CFO dismissal is strengthened with higher CEO stock ownership.

Figure II-2. CEO financial expertise and CFO dismissal: the moderating effect of CEO stock ownership



Furthermore, the control variables also yielded interesting results. For example, there is a positive and significant association between firm size and the likelihood of CFO dismissal ($b = 0.52, p < .01$ in Model 1). This gives support to the view that large firms have more formalized or institutionalized dismissal processes (Ocasio, 1999; Vancil, 1987). Moreover, consistent with the previous literature (e.g., Mian, 2001), there is a negative and significant association between a firm's ROA and the likelihood of CFO dismissal (e.g., $b = -5.31, p < .01$ in Model 2).

5 Discussion

Overall, the agency theory perspective and supportive findings presented in this essay point to the conclusion that the presence of specialized knowledge and the level of monitoring incentives in a firm's internal governance structure affect executive dismissal.

The first set of results demonstrates that the monitoring of the CFO is more effective when outside directors or the CEO have financial expertise. Consequently, stronger monitoring increases the likelihood of CFO dismissal, indicating that the firm's internal governance structure is better able to scrutinize potential managerial opportunism by the CFO. These findings support the theoretical perspective that financial expertise allows monitors to better understand financial policy decisions and actions, which directly translates into their ability to effectively monitor financial experts such as the CFO.

Additional results, furthermore, indicate that the monitors' motivations also positively influence the effectiveness of monitoring. Specifically, these findings suggest that stock ownership increases the vigilance of outside directors, as well as the time and attention they devote to the firm. Thus, outside directors with high stock ownership are better motivated and incentivized to detect firm value-destroying behavior by the CFO, ultimately increasing the likelihood of CFO dismissal. Surprisingly, the results indicate that a shareholder-aligned CEO is not more effective at monitoring the CFO than is a non-aligned CEO. Consequently, a higher stock ownership for the CEO does not significantly increase the likelihood of CFO dismissal.

The final set of results examines the interplay between specialized knowledge and monitoring incentives in relation to executive dismissal. These findings suggest that financial expertise in the firm's internal governance structure provides the foundation for the effective monitoring of the CFO, while ownership stakes moderate that relationship. Thus, the stock ownership of monitors is a necessary but not a sufficient condition for effective monitoring. Rather, it requires adequate specialized knowledge to be able to sanction managerial opportunism.

5.1 Theoretical contributions

This essay's findings contribute to a better understanding of how certain agency conditions within a firm's internal governance structure affect executive dismissal as the

ultimate sanction of managerial behavior. In particular, this essay contributes to the extant literature in three important aspects.

First, it contributes to the emerging research stream on the monitoring of TMT members (e.g., Cruz et al., 2010; Werner & Tosi, 1995). In particular, it explains the monitoring of non-CEOs more completely than does previous research by distinguishing between outside directors and the CEO as monitors. This essay thus provides the first systematic exploration of the determinants of effective monitoring by the CEO.

Second, this essay offers a novel perspective to previous research on executive succession, which has traditionally focused on the role of board composition as the important internal agency condition (Coughlan & Schmidt, 1985; Warner et al., 1988; Weisbach, 1988). The findings shed additional light on the determinants of executive succession by showing how specialized knowledge and monitoring incentives of monitors affect the executive dismissal decision. This essay thus also contributes to the CFO-specific succession literature, which has largely focused on the role of poor corporate performance thus far (Mergenthaler, Rajgopal, & Srinivasan, 2009; Mian, 2001; Reutzel & Cannella, 2004).

Third, this essay extends emerging research on the role of specialized knowledge in corporate governance (e.g., Carpenter & Westphal, 2001; Gore et al., 2011; Hillman & Dalziel, 2003) by examining the interdependencies between specialized knowledge and monitoring incentives in the firm's internal governance structure. This essay thus also contributes to the emerging stream of research that has investigated the role of the characteristics of the board of directors (Gore et al., 2011; Kroll et al., 2008; Tuggle, Sirmon, Reutzel, & Bierman, 2010) and previous research on director selection (e.g., Carpenter, Geletkanycz, & Sanders, 2004; Hermalin & Weisbach, 1998; Westphal & Zajac, 1995). For example, this essay suggests that specialized knowledge provides clear benefits to the monitoring function of outside directors which can be further altered with higher shareholdings. Thus, a better understanding of the relation between specialized knowledge and monitoring incentives provides new insights into the selection of director candidates.

5.2 Limitations and future research

To the best of my knowledge, this essay represents the first attempt to examine how the presence of specialized knowledge in relation to monitoring incentives in a firm's internal governance structure affects executive dismissal. But, like any study, this essay is not without limitations.

First, because I relied on archival data I could not use direct information about the decision-making processes that ultimately led to executive dismissal. In particular, I was not able to gather direct evidence to assess the intentions, evaluations and actions of outside directors and the CEO leading to the dismissal of the firm's CFO. I could have made stronger inferences about CFO dismissal decisions, if I had been able to gain access to such information. Nevertheless, the executive dismissals I could identify were sufficient to allow a test that supported my predictions, indicating that dismissal as the ultimate managerial sanction depends on important agency conditions in the firm's internal governance structure.

Second, this essay indicates that the financial expertise and stock ownership of monitors increase the likelihood of CFO dismissal, while not specifically considering the implications of those factors on the selection process of the firm's CFO. Thus, better qualified boards and CEOs could select better qualified CFOs, thereby ultimately reducing the need to dismiss those executives. However, following this selection logic the current results would receive additional support, as it would ultimately reduce the tendency to induce dismissals for boards and CEOs with high financial expertise. Nevertheless, future research could shed more light on the consequences of specialized knowledge on the selection process of CFOs.

Third, this essay focused on the dismissal context of the CFO. While this focus allowed me to identify directors and executives with the required specialized knowledge to monitor the executive's actions and decisions (Gore et al., 2011; Li et al., 2010), a broader set of TMT members (e.g., the chief operations officer or the chief marketing officer) could further improve the understanding of how the specialized knowledge of

monitors affects TMT turnover. Interestingly, one could also argue that those TMT members might also provide relevant specialized knowledge to their positions, which could contribute to a more effective monitoring of their peers (cf. Fama, 1980).

Finally, future research might also examine whether the postulated mechanisms also apply to smaller firms and in other national contexts.

6 Summary

In conclusion, I examined how the presence of specialized knowledge in relation to monitoring incentives in a firm's internal governance structure affects executive dismissal. The findings indicate that the monitoring of the CFO is more effective when outside directors or the CEO have financial expertise. Financial expertise allows monitors to better understand financial policy decisions and actions, which directly translates into their ability to effectively discipline financial experts such as the CFO. Moreover, the findings suggest that the monitors' motivations also positively influence the effectiveness of the monitoring. For example, the stock ownership of outside directors increases their vigilance as well as the time and attention they devote to the firm. Consequently, outside directors with high shareholdings are better motivated and incentivized to detect firm value-destroying behavior by the CFO, ultimately increasing the likelihood of CFO dismissal. The final set of results shows that financial expertise in the firm's internal governance structure provides the foundation for the effective monitoring of the CFO, while the shareholdings of monitors rather moderate that relationship. Thus, monitoring is likely to be more effective when monitors have higher stock ownership in addition to the relevant specialized knowledge. I hope that this essay inspires future research on the relation between agency conditions and the dismissal of executives reporting to the CEO.

Endnotes

¹ In this essay monitoring is defined as the direct or indirect observation of the agent's effort, or behavior, over a defined period of time, e.g., through observations and measurements (Jensen & Meckling, 1976).

² Goal incongruence is an important assumption for principal-agent relationships, suggesting that agents, e.g. executives, seek to maximize their own interests, which may diverge from the best interests of the principals, e.g., shareholders (Zajac, 1990).

³ Information asymmetry exists because principals generally have less information than do the agents about: (1) the agents' characteristics (Guasch & Weiss, 1981) and (2) the decisions made and the actions taken by agents.

III. The impact of financial analysts and their personal and organizational reputation on CEO dismissal

In the previous chapter, I examined the pivotal role of specialized knowledge and monitoring incentives in the firm's internal governance structure on executive dismissal. Thus, if specialized knowledge and monitoring incentives are not sufficiently present in the firm's internal governance structure, an organization is likely to be ineffective at making managerial replacements. However, previous research has shown that external control mechanisms as disciplines of last resort can also sanction corporate executives. An emerging research stream in this context has particularly highlighted the role of financial analysts as important information intermediaries for the board of directors.

In the following chapter, I thus seek to examine the role of financial analysts in CEO dismissal decisions. In particular, I propose that corporate boards consider analyst recommendations beyond classic firm performance measures in their CEO dismissal decisions. Moreover, I suggest that the personal and organizational reputation of financial analysts moderates the board's assessment of the firm's CEO in response to analyst recommendations and thus its decision whether to dismiss the top executive. The hypotheses are tested using a large sample of S&P 500 companies for the 1998–2009 time period. Empirical results strongly support all of the hypotheses.

Overall, this chapter offers a novel perspective to research on corporate governance by relating the reputations of financial analysts to board behavior. It is among the first to show that a CEO dismissal in response to stock recommendations is influenced not only by the financial community as a whole but rather by individual financial analysts with a high personal or organizational reputation. It was accepted for presentation at the annual meeting of the Academy of Management in San Antonio, United States, in August 2011.

1 Introduction

The decision to replace the CEO of an organization is among the most important decisions for the board of directors because it has long-term implications for the future success of the firm (Huson et al., 2001). Although historically CEO dismissal decisions have been relatively rare, scholars have reported a significant increase in dismissal frequency over recent decades (Huson et al., 2001; Wiersema, 2002; Wiersema & Zhang, 2011). CEO dismissal has, therefore, long been a subject of interest in management research (for a review, see Finkelstein et al., 2009; Giambatista et al., 2005; Kesner & Sebor, 1994). Previous work on CEO dismissal has traditionally focused on the role of corporate performance and internal agency conditions (e.g., Cannella & Shen, 2001; Shen & Cannella, 2002a; Weisbach, 1988). However, an emerging research stream has also examined the role of financial analysts as an important external control mechanism that may affect the board's decision to replace the firm's CEO (e.g., Wiersema & Zhang, 2011).

Financial analysts are important information intermediaries whose role is to provide independent information that significantly affects stock prices and investor behavior, thereby likely influencing monitoring behavior by the board of directors. Yet, the literature on the impact of financial analysts on investor behavior and corporate outcomes has suggested that the quality of analyst coverage, their visibility and their optimism depends on their reputations, which stem either from their personal positions or from their professional backgrounds (e.g., Hayward & Boeker, 1998; Hong & Kubik, 2003; Stickel, 1992). This work has not been reflected in the CEO dismissal context thus far. In particular, little is known about whether analyst reputation moderates a dismissal reaction by corporate boards in response to negative analyst recommendations. This essay seeks to address this research gap by suggesting that the personal reputation of the analyst and the organizational reputation derived from working for a prestigious brokerage house affect the board's assessment of the firm's CEO and ultimately influence its decision whether to dismiss him or her.

In particular, I propose that corporate boards consider analyst recommendations beyond classic firm performance measures in their dismissal decisions. Moreover, I argue that negative analyst recommendations are especially likely to prompt a dismissal decision by corporate boards when analysts are perceived to be of higher quality, as indicated by their personal reputation or employment by reputable brokerage houses. This essay thus makes several theoretical and empirical contributions to the literature. First, it offers a novel perspective to research on corporate governance by relating the reputations of financial analysts to the realm of board behavior. This essay thereby complements previous succession research, which has highlighted the important contextual and governance factors of external constituents (e.g., corporate performance) for the monitoring behavior of the board of directors (cf. Wiersema & Zhang, 2011). Second, this essay also contributes to the literature on analyst reputation. Previous literature in this context has largely focused on the impact of analyst reputation on stock prices and investor behavior (e.g., Fang & Yasuda, 2009; Leone & Wu, 2007; Stickel, 1992). I suggest, however, that analyst reputation can also influence important board actions and assessments. Third, this essay contributes to the research on executive succession, which has largely emphasized the role of poor corporate performance and the corresponding internal agency conditions (cf. Boeker, 1992; Denis et al., 1997; Ocasio, 1994; Shen & Cannella, 2002a; Weisbach, 1988; Zhang, 2006). While controlling for corporate performance I find support for the theoretical prediction that individual financial analysts with a high personal or organizational reputation influence CEO dismissal in response to stock recommendations. Thus, this essay is among the first to show that the reputations of external control mechanisms influence the board's decision whether to dismiss the firm's CEO.

The remainder of this essay is organized into several sections. The next section describes the theoretical background and develops the hypotheses. Subsequently, I provide details on sample selection, measures and methods. I then report the results of the essay and present the discussion and ideas for future research. The last section concludes this essay.

2 Theoretical background

2.1 The monitoring role of financial analysts

Classical agency theory highlights the role of monitoring (i.e., a board's supervision of its executives) as a central control component for managers in order to solve agency problems¹ resulting from the separation of ownership and control in public corporations (Berle & Means, 1932; Eisenhardt, 1989; Fama & Jensen, 1983; Jensen & Meckling, 1976). Monitoring activity is needed to curb agent opportunism and to prevent risk shifting from stockholders to bondholders. Owing to prevalent information asymmetries, corporate boards typically have an informational disadvantage when monitoring executives (Eisenhardt, 1989). Jensen (1993:864) argued that this information disadvantage hinders "the ability of even highly talented board members to contribute effectively to the monitoring and evaluation of the CEO and the company's strategy". Thus, Jensen and Meckling (1976:354) noted that monitoring should "become specialized to those institutions or individuals who possess comparative advantages in these activities". In particular, they highlighted financial analysts as important information intermediaries, who provide directors and/or shareholders with reliable information that aids the effective monitoring of executives.

Financial analysts work for brokerage houses, investment banks or independent research firms, and they routinely collect and process firm-specific information to assess the current and future investment prospects of public companies (Chung & Jo, 1996; Li, Rau, & Xu, 2009; Wiersema & Zhang, 2011). Agency theory-based work has provided two central reasons why financial analysts provide an important external control mechanism for top executives (for an overview, see Ramnath, Rock, & Shane, 2008).

First, recommendations by financial analysts can positively impact the efficiency of financial markets by reducing agency costs associated with the separation of ownership and control, as they are reflected in the higher capitalized value of the stock- and debt-holder ownership claims to organizations (Jensen & Meckling, 1976). Following Holmström (1979), the board of directors can more efficiently assess the performance

of executives because of the additional information provided by intermediaries such as financial analysts. Consistently, scholars have found that the market value of a corporation is positively associated with the number of analysts that follow a firm due to a reduction in agency costs associated with monitoring and assessing the firm and its performance (Chen & Steiner, 2000; Chung & Jo, 1996). Similarly, Moyer, Chatfield, and Sisneros (1989) showed that monitoring activity by financial analysts should be higher when the agency problems are expected to have significant economic consequences.

Second, financial analysts also serve as information intermediaries by distributing corporate information to potential investors. Brennan and Hughes (1991) argued that analyst recommendations can reduce the information asymmetry between investors and firms by producing the information that is required for investors to trade. Similarly, Chung and Jo (1996) followed Merton's (1987) argumentation in predicting that the market value of a firm is positively associated with the breadth of investor cognizance (i.e., the share of all investors who know about the firm). Irvine (2003) found that financial analysts direct investor attention to the firms they provide recommendations for. By influencing investor awareness, analysts also have an influence on stock prices, even when providing redundant or outdated information (Merton, 1987). In a similar vein, financial analysts are often seen as "surrogate investors" (Zuckerman, 1999:1408), whose recommendations and forecasts significantly affect investor behavior. Previous work has documented that share prices react to the revisions of recommendations by financial analysts. For example, Womack (1996) found a significant positive (negative) price reaction to upgrades (downgrades), with the market response to downgrades being more severe.

Both these reasons indicate that financial analysts as a group provide relevant information to the board of directors that aids the effective monitoring of top executives. However, corporate boards are more likely to consider analyst opinions in their monitoring when the analysts have high reputations² (Fama, 1980; Fang & Yasuda, 2009; Hayward & Boeker, 1998; Stickel, 1992; Wiersema & Zhang, 2011). In this essay, I follow Hayward and Boeker (1998) to distinguish two different types of analyst repu-

tation. In particular, I argue that analysts can either gain reputation from their personal positions or from their organizational backgrounds by working for a prestigious brokerage house (Hayward & Boeker, 1998; Pfarrer, Pollock, & Rindova, 2010; Rindova et al., 2005; Useem & Karabel, 1986). Thus, reputable analysts have a high personal reputation and/or a high organizational reputation. Based on these considerations, the hypotheses examine whether boards respond to analyst recommendations when deciding to dismiss a CEO and investigate what role the personal and organizational analyst reputation plays in this context.

2.2 The impact of financial analysts on CEO dismissal

In general, financial analysts serve as important information intermediaries for corporate decision-makers and they can thereby influence important firm outcomes with their assessments (cf. Wiersema & Zhang, 2011). For example, Zuckerman (1999) found that the stock price of a firm is likely to drop if analysts are active in the core industry of the firm but do not issue recommendations on the firm, a phenomenon described as “illegitimacy discount”. Moreover, Zuckerman (2000) showed that firms are more likely to divest business units where the misalignment between corporate strategy and the identity attributed to the firm by financial analysts is highest. In a recent study, Benner and Ranganathan (2011) noted that recommendations by financial analysts can also influence a firm’s strategic investments. In particular, they found that increasingly negative recommendations reduce firms’ capital expenditures and R&D investments during periods of radical technological change. They also found that firms that maintain strategic investment levels despite negative analyst opinions are likely to offset their growing illegitimacy by announcing legitimacy-enhancing actions, such as stock repurchases.

By issuing independent performance forecasts, financial analysts can also influence the board’s decision whether to dismiss or replace the firm’s top executive. For example, Puffer and Weintrop (1991) found that negative performance forecasts by financial analysts increase the likelihood of CEO turnover, suggesting that performance forecasts serve as a proxy for the board’s performance-related expectations. Moreover,

Farrell and Whidbee (2003) documented that the impact of negative analyst forecast errors on the likelihood of CEO turnover is larger when there is less dispersion among analysts or a larger number of analysts covering the firm. Similarly, Dikolli, Mayew and Nanda (2009) suggested that a longer series of negative analyst forecast errors increasingly resolves the board's uncertainty about managerial ability.

In addition to issuing performance forecasts, financial analysts also interpret and disseminate information about strategic decisions, industry trends and financial circumstances by rendering summary assessments about the firms that they follow (Hayward & Boeker, 1998; Rao, Greve, & Davis, 2001; Westphal & Clement, 2008; Zuckerman, 2000). These assessments include recommendations on whether to buy, hold or sell particular stocks. Previous research has suggested that those recommendations can affect the board's dismissal decisions (Wiersema & Zhang, 2011).

First, boards are likely to incorporate analyst opinions in their decision whether to dismiss or retain the CEO, because, as described above, analyst recommendations have a significant impact on stock valuations and trading behavior (e.g., Womack, 1996). A potential change in stock market valuation affects a firm's access to capital, which ultimately influences its corporate strategy (e.g., acquisitions), compensation policies and the career prospects of the firm's top managers (Hayward & Boeker, 1998). As a result, the board of directors will most likely consider any information that can materially affect the stock valuation of the firm and trading behavior of investors in their decisions on important firm outcomes such as the replacement of the CEO (cf. Wiersema & Zhang, 2011). Second, financial analysts provide the board with an unfiltered assessment of financials, future prospects and strategic decisions. Because boards have to make decisions under conditions of uncertainty (Haleblian & Rajagopalan, 2006), external constituents become influential information providers who legitimize top executives (Wade, Porac, Pollock, & Graffin, 2006). In a similar vein, Wiesenfeld, Wurthmann and Hambrick (2008:234) noted that financial analysts "possess prominent and legitimate platforms for rendering assessments of firms and the individuals associated with them". Moreover, directors can better verify their own evaluations of firm performance by considering analyst recommendations.

Negative recommendations by financial analysts imply a negative assessment of the firm's strategic decisions and its financial situation. Moreover, a recommendation that conveys negative information occurs less frequently than does a positive signal. The reason for this is that analysts on average tend to be optimistically biased (Carleton, Chen, & Steiner, 1998; Chen & Steiner, 2000; Ertimur, Zhang, & Muslu, 2011; Womack, 1996). Thus, negative recommendations tend to have a stronger effect on investors (Womack, 1996). As a result, I expect that the board will be more likely to consider analyst information in its replacement decisions when it conveys negative news. Consistent with Wiersema and Zhang (2011), I thus propose that a firm with a negative average analyst recommendation will have a higher likelihood of CEO dismissal. Or said differently, the average analyst recommendation is negatively related to CEO dismissal.

Hypothesis 1: The average analyst recommendation is negatively related to the likelihood of CEO dismissal.

2.3 The moderating effect of personal analyst reputation

While analyst recommendations likely play an important role in the board's decision whether to dismiss the top executive, the perceived quality of the conveyed information and its impact on investor behavior will largely depend on the analysts' reputations. Financial analysts are heterogeneous and some are likely to be perceived differently compared with their peers. Primarily, analysts can build a reputation from their personal positions (e.g., Hayward & Boeker, 1998; Jackson, 2005; Stickel, 1992). One "consensual and accessible index" (Hayward & Boeker, 1998:7) of an analyst's personal reputation is the annual ranking of the leading trade magazine (*Institutional Investor*), which nominates so-called "all-star" analysts. I thus argue that the personal reputation of financial analysts as reported in the *Institutional Investor* magazine affects the relation between analyst recommendations and the likelihood of CEO dismissal.

First, a high personal reputation of financial analysts is likely to be positively associated with the quality of their coverage (e.g., Desai, Bing, & Singh, 2000; Stickel, 1992). For example, Stickel (1992) documented that an analyst with a high personal reputation is a more accurate forecaster than is an analyst with a low personal reputation. Similarly, Fang and Yasuda (2009) argued that analysts with a high personal reputation are more skilled and produce more valuable information than do other analysts. Leone and Wu (2007) proposed that the superior performance of analysts with a high personal reputation is driven through ability rather than luck and that reputation is a result of talent rather than experience. As a result, when it comes to evaluating the CEO's performance, the board is more likely to act on information it perceives to be of higher quality. Thus, the board will be more sensitive to recommendations by analysts with a high personal reputation because the quality of their coverage is likely to be higher compared with analysts with a low personal reputation.

Second, analysts with a high personal reputation are likely to affect stock prices and investor behavior comparatively more than do analysts with a low personal reputation. For example, Stickel (1992) showed that analysts with a high personal reputation have a higher impact on stock prices than do other analysts. Similarly, Gleason and Lee (2003) found that the recommendations by analysts with a high personal reputation generate higher excess returns than do the recommendations by other analysts, resulting in a higher standing with investors. Recent evidence has suggested that recommendations by analysts with a high personal reputation are more influential in the sense that they result in more analyst activity and investor portfolio rebalancing (Loh & Stulz, 2011). As a result, the board is likely to respond more to recommendations by analysts with a high personal reputation because those recommendations will more strongly affect stock prices, investor trading behavior and ultimately the firm's access to capital than will recommendations by analysts with a low personal reputation.

Third, analysts with a high personal reputation are more visible in the financial community than are analysts with a low personal reputation (Chan, Ikenberry, Lakonishok, & Lee, 2004). Personal reputation provides financial analysts with better access to institutional investors, corporate executives and directors and facilitates peer respect

(Hayward & Boeker, 1998). Mayew (2008) found that analysts with a high personal reputation have a higher participation probability and thus higher visibility in corporate conference calls because of higher management discrimination. Moreover, compared with other analysts, analysts with a high personal reputation can expect higher compensation and trading commissions (Jackson, 2005; Stickel, 1992; Trueman, 1994) and more job promotions (Clarke, Khorana, Patel, & Rau, 2007; Hong & Kubik, 2003), which should ultimately increase their visibility in the community. Consequently, the increased visibility in the financial community is likely to allow analysts with a high personal reputation to receive disproportionate attention from the board of directors when evaluating the incumbent CEO.

Fourth, inaccurate investment advice is more likely to be tolerated as exceptional or unintentional when the analyst has a high personal reputation (Perrow, 1961). Accurate advice, by contrast, tends to be attributed to analysts with a high personal reputation rather than to chance or to other factors (Hollander, 1958). Moreover, personally reputable analysts are more likely to refrain from opportunism because they have greater long-term benefits at risk (Fang & Yasuda, 2009; Jackson, 2005). As a result, the board is likely to perceive negative recommendations by analysts with a high personal reputation as more independent and less biased compared with recommendations by non-reputable analysts.

For these reasons, I propose that the effect of analyst recommendations on the board's decision whether to dismiss the CEO will also depend on the personal reputation of the analysts who cover the stock. Consequently, I expect that recommendations by analysts with a high personal reputation carry greater weight in the board of directors' evaluations and assessments of top executives. The negative information conveyed by negative analyst recommendations is more critical and visible when analysts have a high personal reputation and thus is likely to increase the likelihood of CEO dismissal. Based on Holmström (1979), I thus argue that a negative consensus recommendation is likely to prompt a dismissal decision by the board of directors if more financial analysts with a high personal reputation contributed to the consensus recommendation. Therefore, I propose that the share of analysts with a high personal reputation moder-

ates the effect of a negative average analyst recommendation on the probability of CEO dismissal.

Hypothesis 2: The share of analysts with a high personal reputation moderates the negative relationship between the average analyst recommendation and the likelihood of CEO dismissal.

2.4 The moderating effect of organizational analyst reputation

As indicated above, financial analysts gain reputation not just from their personal positions but also from working for prestigious brokerage houses (Pfarrer et al., 2010; Rindova et al., 2005; Useem & Karabel, 1986). Similarly to the personal analyst reputation ranking, the *Institutional Investor* magazine publishes an annual ranking that ranks brokerage houses based on various criteria. Thus, the reputation of the brokerage house the covering analysts work for may also affect the board's decision to dismiss the CEO as a response to analyst recommendations (e.g., Bolliger, 2004). Several reasons indicate that financial analysts with a high organizational reputation are expected to be more accurate in their forecasts and, therefore, provide recommendations of higher quality than do less reputable analysts.

First, brokerage houses are likely to differ in their procedures and policies, such as analyst training, evaluation procedures and the quality of the sources of industry knowledge (Granovetter, 1985; Jacob, Lys, & Neale, 1999). Stickel (1995) suggested that reputable brokerage houses have better methods to disseminate their analysts' recommendations in capital markets. Moreover, Stickel (1995) argued that analysts working for reputable brokerage houses have better relations with the covered firms and better research support networks. Thus, the board will be more sensitive to analysts that have access to more sophisticated resources (e.g., information tools) compared with analysts that have access to less sophisticated resources.

Second, analysts working for reputable brokerage houses are more immune to pressure than are analysts working for less reputable brokerage houses because the latter have

more difficulties building ties with top executives and other information sources (Das, Levine, & Sivaramakrishnan, 1998; Francis & Philbrick, 1993). Subsequently, analysts who work for reputable brokerage houses are more likely to issue recommendations that convey negative information than are other analysts (Hayward & Boeker, 1998; Phillips & Zuckerman, 2001). Similarly, Lim (2001) found that analysts who are employed at larger and more prestigious brokerage houses tend to issue less optimistically biased earnings forecasts. As a result, the board is likely to perceive negative recommendations by analysts who work for reputable brokerage houses as more independent and less biased compared with recommendations by other analysts.

Third, less accurate financial analysts that are employed by reputable brokerage houses are more likely to be penalized by the labor market (cf. Hong & Kubik, 2003). Thus, only the best analysts remain in their positions in reputable brokerage houses. Moreover, reputable brokerage houses have more financial resources to attract the best analyst talents. Subsequently, being a financial analyst at a prestigious brokerage house is likely to result in higher compensation than is being an analyst at a less reputable brokerage house (Hong & Kubik, 2003). Thus, the board is likely to be more sensitive to information from analysts who work for prestigious brokerage houses because the reputation of the brokerage house sends a clear signal about the talent of the analyst.

For these reasons, I suggest that the effect of analyst recommendations on the board's CEO dismissal decision will also depend on the organizational reputation of analysts. Consequently, I expect that the recommendations by analysts with a high organizational reputation carry a greater weight in the board of directors' evaluations and assessments of the CEO. The negative information provided by analysts employed at prestigious brokerage houses will, therefore, be more likely to be perceived as qualitative by corporate boards when deciding whether to dismiss the top executive. In line with Holmström (1979), I thus argue that a negative consensus recommendation is likely to prompt a dismissal decision by the board of directors if more analysts working for reputable brokerage houses contributed to the consensus recommendation. Thus, I propose that the share of analysts with a high organizational reputation moder-

ates the effect of a lower average analyst recommendation on the probability of CEO dismissal.

Hypothesis 3: The share of analysts with a high organizational reputation moderates the negative relationship between the average analyst recommendation and the likelihood of CEO dismissal.

3 Methods

3.1 Data and sample

The sample of this essay was randomly drawn from the population of large, publicly traded US companies listed on the S&P 500 index for at least one year between 1998 and 2009. I focused on S&P 500 companies because I needed to identify firms that have widely traded stocks (and are thus followed by financial analysts). I decided to use this timeframe because it covers years before and after the enactment of the fair disclosure regulation reform in August 2000 and thus it should support the generalization of my findings. By tracking firms over 11 years, I also ensure a sufficient number of years to capture CEO dismissals. The original sample consisted of 390 companies over an 11-year period (3,594 firm-year observations) that exhibited no significant differences in terms of sales or assets compared with the entire S&P 500 population. After excluding firm-year observations with missing information and with less than three recommendations in any six-month period, the final sample consisted of 358 companies and 3,121 firm-year observations for data analysis.

3.2 Dependent variable

CEO dismissal. For each company in the sample, I identified whether and when the company experienced a CEO departure during the 11-year period (1998–2009). I relied upon business news reports from two years before the departure to two years after the departure, to identify the circumstances under which the CEOs left office (dismissal versus routine departure). My approach to classifying departures as dismissal

was based on those of Weisbach (1988), Parrino (1997) and Farrell and Whidbee (2003)³. I coded CEO departures as dismissal only if a) the CEO was directly reported as having been fired or ousted; b) the CEO was reported as having resigned unexpectedly or immediately owing to poor performance; c) the CEO was reported as having resigned because of policy and personality disagreements; d) the CEO was reported as having resigned owing to a scandal; or e) the departure of the CEO was for undisclosed personal reasons. Among the 3,121 firm-year observations in the sample, I identified 349 CEO departures, of which 91 were dismissals (26%). I created a dichotomous dependent variable, which I coded 1 in a year in which a CEO was dismissed and 0 otherwise.

3.3 Independent variables

Average analyst recommendation. Consistent with Wiersema and Zhang (2011), I measured the average analyst recommendation as the mean recommendation value for all financial analysts that issued recommendations for a firm within a six-month lag period. If a firm experienced a CEO dismissal, the six-month period refers to the six months immediately before the month in which the CEO was dismissed. If a firm did not experience a CEO dismissal, I used the six-month period from January 1 to June 30 in the current year⁴. I calculated the average analyst recommendation from data gathered from the I/B/E/S database. The I/B/E/S database provides historical analyst-based and consensus recommendation data on a large number of US- and international firms. The I/B/E/S database uses a five-point rating system (“Strong Buy”, “Buy”, “Hold”, “Underperform”, “Sell”), which transforms individual recommendation definitions into a universal rating system with higher scores implying lower recommendations. I reverse coded the monthly mean recommendation by subtracting it from six in order to allow for easier interpretation. Then, I weighted the monthly average by the number of covering financial analysts to account for varying analyst coverage. For the firm sample, the average weighted analyst recommendation ranged from 1.4 to 4.87, with a mean of 3.67 and a standard deviation of 0.44.

Share of analysts with high personal reputation. I measured the share of analysts with a high personal reputation as the number of personally reputable analysts divided by the total number of analysts covering the firm in the six-month lag period. I used the All-America designation from the *Institutional Investor* magazine as an observable measure of an analyst's personal reputation⁵ (Cliff & Denis, 2004; Fang & Yasuda, 2009; Hong & Kubik, 2003; Krigman, Shaw, & Womack, 2001; Li et al., 2009). In the annual survey, analyst customers (e.g., portfolio managers) evaluate analysts along multiple dimensions such as "industry knowledge", "responsiveness", "timely communication", "professionalism" and "management access". On that basis, they elect the best analysts and the October issue of the magazine then publishes this list. The top-placed analysts per industry are so-called "all-star analysts", which is arguably the most visible and coveted status among analysts and, therefore, a powerful determinant of the analysts' personal reputation (Fang & Yasuda, 2009; Hayward & Boeker, 1998; Leone & Wu, 2007).

I hand-collected the all-star list for each year during the sample period and matched analyst names in the *Institutional Investor* polls to the names in the detailed I/B/E/S dataset. There are four levels of All-America status, ranging from First-Team All-America to Runners-up All-America. In the primary analyses, I defined an all-star analyst as First-Team All-America (so-called "champion all-star"). Moreover, the results were robust for alternative all-star definitions, with the original definition providing the strongest results. Consistent with the previous literature (e.g., Hong & Kubik, 2003), I assumed that the analyst maintained his or her all-star status for 12 months following the published polls. For the firm sample, the share of analysts with a high personal reputation ranged from 0 to 0.48, with a mean of 0.04 and a standard deviation of 0.06.

Share of analysts with high organizational reputation. I measured the share of analysts with a high organizational reputation as the total number of analysts working for reputable brokerage houses divided by the total number of analysts covering the firm in the six-month lag period. I derived the brokerage house reputation from the annual brokerage house prestige ranking published by the *Institutional Investor* maga-

zine in October, as consistent with Hong and Kubik (2003) and Phillips and Zuckerman (2001). The ranking contains the 10 most prestigious brokerage houses and lists them as “the leaders”. I classified the top 10 brokerage houses in this annual ranking as reputable and other brokerage houses as not reputable for that year. For the firm sample, the share of analysts with a high organizational reputation ranged from 0 to 1, with a mean of 0.33 and a standard deviation of 0.15.

3.4 Control variables

Firm size. I controlled for firm size because larger firms are more likely to be closely monitored by financial analysts. In the analysis, I measured firm size as the natural logarithm of total sales. I updated this variable yearly. As an alternative, I measured firm size as the natural logarithm of the total number of employees. Both measures of firm size produced consistent results. I gathered the data on firm size from Compustat.

Firm performance. I controlled for firm performance, because research has consistently shown that poor pre-succession performance increases the likelihood of CEO dismissal (Boeker, 1992; Huson et al., 2001; Shen & Cannella, 2002a; Zhang, 2006). I measured firm performance using both an accounting and stock performance measure adjusted by industry difference. I measured the industry-adjusted firm ROA as the one-year average industry-adjusted ROA, in which firm ROA was adjusted for industry median ROA (excluding the focal firm) (Huson et al., 2004). This measure of industry-adjusted firm performance helped differentiate firms that performed poorly relative to their respective industries. To test the robustness of my results, I also examined a one- and three-year average measure. This analysis produced highly consistent results. I measured industry-adjusted stock return by the firm’s total return to shareholders in the previous year minus the median stock return (excluding focal firm) in the firm’s core industry. I updated both performance variables yearly. I gathered the data on firm performance from Compustat.

Analyst coverage. I controlled for the number of analysts that issue recommendations on a firm because higher analyst coverage likely implies increased scrutiny by inves-

tors along with lower information asymmetry (Brennan & Subrahmanyam, 1995). I measured analyst coverage as the average number of financial analysts that provide recommendations for the firm in the six-month period. I updated this variable yearly because analyst coverage can change over time. I gathered the data on analyst coverage from the I/B/E/S database.

Analyst consensus. I controlled for the analyst consensus or the standard deviation across analyst recommendations of a firm because a lower variation is likely to increase the quality of the information signal the board receives, which ultimately might affect the likelihood of CEO dismissal. Consistent with Wiersema and Zhang (2011), I measured analyst consensus as the inverted standard deviation of analyst recommendations for a firm in the six-month period weighted by the corresponding analyst coverage. I updated this variable yearly. I gathered the data on analyst consensus from the I/B/E/S database.

Average analyst experience. I controlled for the average analyst experience, because a higher analyst experience likely improves the task performance of analysts as well as the nature of the relationships between directors and analysts (e.g., Mikhail, Walther, & Willis, 1997). I measured analyst experience as the number of quarters since an analyst issued his or her first earnings forecasts or stock recommendations for the particular firm consistent with Loh and Stulz (2011) and Mikhail et al. (1997). I then calculated the mean analyst experience over the six-month lag period for all analysts who covered the particular stock. As an alternative, I measured analyst experience as the number of quarters that the analyst appeared on the I/B/E/S database. Both measures of analyst experience produced highly consistent results. I updated this variable yearly. I gathered the data on average analyst experience from the I/B/E/S database.

Board size. I controlled for board size because previous research has suggested that smaller boards can operate more efficiently and, consequently, monitor more effectively (Jensen, 1993; Yermack, 1996). This argument suggests that smaller board sizes could be related to an increased likelihood of CEO dismissal. I measured board size as the number of directors on the firm's board at the end of the fiscal year. I updated this

variable yearly. I gathered the data on board size from annual corporate proxy statements and 10-K reports.

Board independence. I controlled for board independence because research has shown that outside directors are more likely to dismiss top executives than are other directors (e.g., Weisbach, 1988). If outside directors are more likely to replace an executive, then the increase in outside director representation on the board should increase this effect (Huson et al., 2001). I measured board independence as the number of outside directors divided by the total number of directors on the firm's board. I updated this variable yearly. I gathered the data on board independence from annual corporate proxy statements and 10-K reports.

CEO age. I controlled for the age of the CEO because firms may have a mandatory retirement policy. Controlling for the age of the CEO helps differentiate retirement from involuntary succession (Ocasio, 1994; Puffer & Weintrop, 1991), thus strengthening the results of this essay. I measured CEO age as the number of years between the fiscal year and the year in which the CEO was born. I updated this variable yearly. I gathered the data on CEO age from annual corporate proxy statements, Marquis Who's Who and press articles.

CEO stock ownership. I controlled for CEO stock ownership because previous work has shown that shareholdings can align CEO interests with shareholder goals, ultimately influencing the likelihood of the dismissal of a newly appointed CEO (e.g., Boeker, 1992). I measured CEO stock ownership as the proportion of the total number of ordinary shares retained by the CEO. I updated this variable yearly. I gathered the data on CEO stock ownership from annual corporate proxy statements and 10-K reports.

CEO duality. I also controlled for CEO duality because there is evidence that CEO duality can adversely affect the board's ability to fulfill its monitoring function (Finkelstein & D'Aveni, 1994). CEO duality occurs when the same person holds both the CEO and board chairperson positions (Rechner & Dalton, 1991). I coded CEO

duality 1 in years in which the CEO was also the chairperson of the firm's board and 0 otherwise. I updated this variable yearly. I gathered the data on CEO duality from S&P's Register of Corporations, Directors, and Executives, Marquis Who's Who and annual corporate proxy statements.

Time. I added 12 time dummy variables for the years 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 2009. The omitted year was 2006. In supplementary analyses, I dropped these 12 time variables and the results remained consistent with those reported in this essay.

3.5 Analytical methodology

The dependent variable in this research model – CEO dismissal – is binary and I coded it 1 in a year in which a CEO was dismissed and 0 otherwise (i.e., voluntary CEO departure or no CEO departure) as described above. The corresponding statistical approach to dichotomous outcomes is logistic regression (logit), which will result in unbiased coefficient estimates (Greene, 2004). Thus, I employed a logit model in a pooled cross-sectional data sample that included 3,121 firm-year observations.

However, the sample consisted of multiple observations per company that most likely are not independent of each other, meaning that unobserved heterogeneity could be an issue (Petersen & Koput, 1991). A well-established statistical technique to address the heterogeneity problem is to use either firm-specific error terms that are fixed over time (so-called fixed-effects models), or firm-specific error terms that vary over time (so-called random-effects models) (Says, 1989). The former requires time-varying independent and dependent variables to distinguish them from the fixed effects (Judge, Griffiths, Hill, & Lee, 1985). However, because many companies did not experience CEO dismissals during the study period, the value of the dependent variable – CEO dismissal – remained zero over time. Thus, those companies would need to be excluded from the analysis if a fixed-effect model was used, potentially leading to biased estimations. Consistent with Wiersema and Zhang (2011), I thus used random-effects xtlogit models to test the hypotheses.

In a logit model, the so-called maximum likelihood estimation is the preferred estimation method. The interpretation of the results of the maximum likelihood estimation is based on the overall model significance and the significance of each coefficient estimate. I assessed the goodness of fit of the model with a pseudo R-square measure consistent with recent work on the use of limited dependent variables techniques (Bowen & Wiersema, 2004; Hoetker, 2007; Wiersema & Bowen, 2009).

4 Results

Table 1 reports the variable means, standard deviations and Pearson correlation coefficients for all observations excluding year dummies ($N = 3,121$ firm-year observations). Table 2 summarizes the results of the random-effects logit models predicting the likelihood of CEO dismissal in relation to the independent and control variables. Model 1 reports the results with only the control variables included. Model 2 reports the results with the addition of the independent variables. Models 3 and 4 report the results with the addition of the moderation variables. Model 5 reports the model with all variables included. Overall, the chi-square statistics for Models 1 to 5 indicate very strong model significance ($p < .01$). Similarly, the McFadden pseudo R -square measure, which ranged from 0.22 to 0.27 in all research models, indicates good predicative ability for CEO dismissal.

Hypothesis 1 predicts a negative effect of the average analyst recommendation on the likelihood of CEO dismissal. This hypothesis is strongly supported because the coefficient for CEO dismissal in all five models is negative and significant. For example, in Model 2 the coefficient for the effect of the average analyst recommendation on CEO dismissal is -1.25 ($p < .01$).

To test the moderating hypotheses that the share of analysts with a high personal reputation (H2) and the share of analysts with a high organizational reputation (H3) may moderate the effect of the average analyst recommendation on the likelihood of CEO dismissal, I added moderation terms that were the product of the mean-centered mod-

erator variable and the mean-centered average analyst recommendation. The chi-square statistics indicating the overall significance of the research model were higher for the models including moderation effects (Models 3, 4 and 5) compared with the models without moderation effects (Models 1 and 2).

Hypothesis 2 predicts that the share of analysts with a high personal reputation moderates the negative relationship between the average analyst recommendation and the likelihood of CEO dismissal. Thus, Hypothesis 2 predicts a negative moderation effect of the share of analysts with a high personal reputation on the relationship between the average analyst recommendation and CEO dismissal. Model 3 and 5 provide a direct test of this prediction. In Model 3 and 5, the coefficient for CEO dismissal for the moderation effect between the share of analysts with a high personal reputation and the average analyst recommendation is negative and significant ($b = -11.10, p < .05$ and $b = -8.53, p < .10$).

Table III-1.
Variable means, standard deviations and correlation coefficients

Variable	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Firm size	8.85	1.20													
(2) Industry-adjusted ROA	0.00	0.07	0.03												
(3) Industry-adjusted stock return	0.12	2.17	0.02	-0.03											
(4) Analyst coverage	11.97	5.74	0.41	0.08	0.03										
(5) Analyst consensus	1.07	0.21	-0.11	0.00	-0.02	-0.11									
(6) Average analyst experience	13.12	4.86	0.24	-0.03	0.04	0.12	-0.09								
(7) Board size	10.07	2.55	0.37	0.01	0.02	0.18	-0.02	0.09							
(8) Board independence	0.81	0.11	0.20	-0.09	0.01	0.08	-0.05	0.19	0.20						
(9) CEO age	56.14	6.43	0.03	0.08	0.00	0.00	0.06	0.01	0.09	-0.02					
(10) CEO stock ownership	0.80	2.77	-0.08	0.04	-0.01	-0.05	0.04	-0.05	-0.11	-0.20	0.09				
(11) CEO duality	0.26	0.44	0.17	-0.02	0.02	0.02	-0.03	0.14	0.05	0.25	-0.06	-0.07			
(12) Average analyst recommendation	3.67	0.44	-0.01	0.16	0.00	0.07	0.07	-0.24	0.01	-0.18	-0.01	0.03	-0.10		
(13) Share of analysts with high personal reputation	0.04	0.06	0.03	0.03	-0.01	-0.09	-0.01	0.16	-0.03	-0.03	0.02	-0.01	0.02	-0.02	
(14) Share of analysts with high organizational reputation	0.33	0.15	0.06	-0.04	0.00	-0.22	0.08	0.18	-0.03	0.01	0.01	0.02	0.07	-0.07	0.35

N = 3,121. Correlations larger than 0.04 are significant at the level of $p < 0.05$, and those larger than 0.05 are significant at $p < 0.01$.

Table III-2.
Results of logistic regression analyses predicting CEO dismissal^{a,b}

	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Constant</i>	-9.20 *** (1.85)	-9.05 *** (1.86)	-9.03 *** (1.87)	-9.04 *** (1.87)	-9.03 *** (1.88)
<i>Controls</i>					
Firm size	0.30 *** (0.10)	0.33 *** (0.10)	0.32 *** (0.10)	0.31 *** (0.10)	0.31 *** (0.10)
Industry-adjusted ROA	-4.79 *** (1.06)	-3.53 *** (1.14)	-3.40 *** (1.15)	-3.53 *** (1.14)	-3.42 *** (1.15)
Industry-adjusted stock return	-0.03 (0.06)	-0.02 (0.06)	-0.03 (0.06)	-0.02 (0.06)	-0.03 (0.06)
Analyst coverage	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Analyst consensus	0.73 (0.55)	0.63 (0.51)	0.58 (0.51)	0.57 (0.51)	0.55 (0.51)
Average analyst experience	0.03 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)
Board size	-0.07 (0.05)	-0.07 (0.05)	-0.07 (0.05)	-0.07 (0.05)	-0.07 (0.05)
Board independence	1.27 (1.32)	0.83 (1.33)	0.76 (1.34)	0.98 (1.34)	0.88 (1.35)
CEO age	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
CEO stock ownership	-0.11 (0.10)	-0.11 (0.10)	-0.11 (0.10)	-0.12 (0.10)	-0.11 (0.10)
CEO duality	-0.19 (0.25)	-0.17 (0.26)	-0.12 (0.26)	-0.16 (0.26)	-0.13 (0.26)
<i>Independent variables</i>					
Average analyst recommendation		-1.25 *** (0.26)	-1.39 *** (0.27)	-1.25 *** (0.27)	-1.36 *** (0.27)
Share of analysts with high personal reputation		-0.70 (2.31)	-4.69 (3.03)	-0.49 (2.32)	-3.73 (3.09)
Share of analysts with high organizational reputation		-1.52 (0.98)	-1.45 (0.97)	-2.60 ** (1.08)	-2.30 ** (1.08)
<i>Interactions</i>					
Avg. analyst recommendation X Share of analysts with high personal reputation			-11.10 ** (4.63)		-8.53 * (4.81)
Avg. analyst recommendation X Share of analysts with high organizational reputation				-3.64 ** (1.48)	-2.76 * (1.48)
Log likelihood	-385.80	-373.16	-370.21	-370.09	-368.49
Pseudo R-square	0.22	0.26	0.26	0.27	0.27
Wald Chi-square	47.17 ***	71.49 ***	74.01 ***	73.07 ***	75.87 ***
N	3,121	3,121	3,121	3,121	3,121

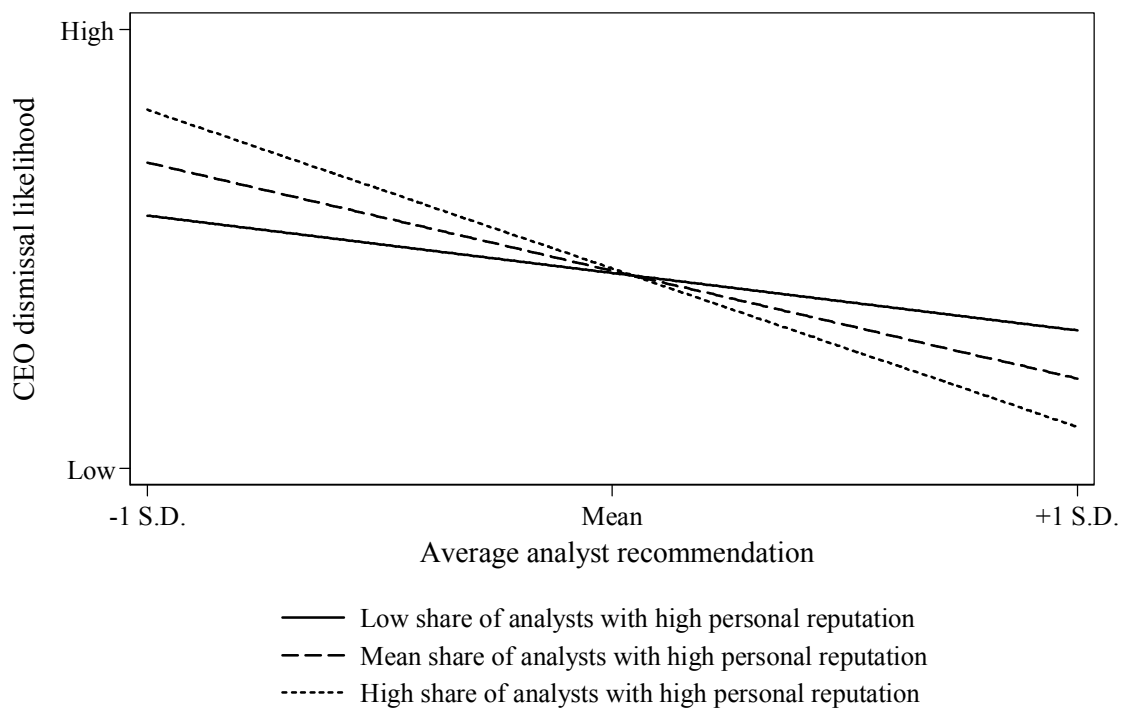
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

^a All models include time dummies.

^b Standard errors are in parentheses.

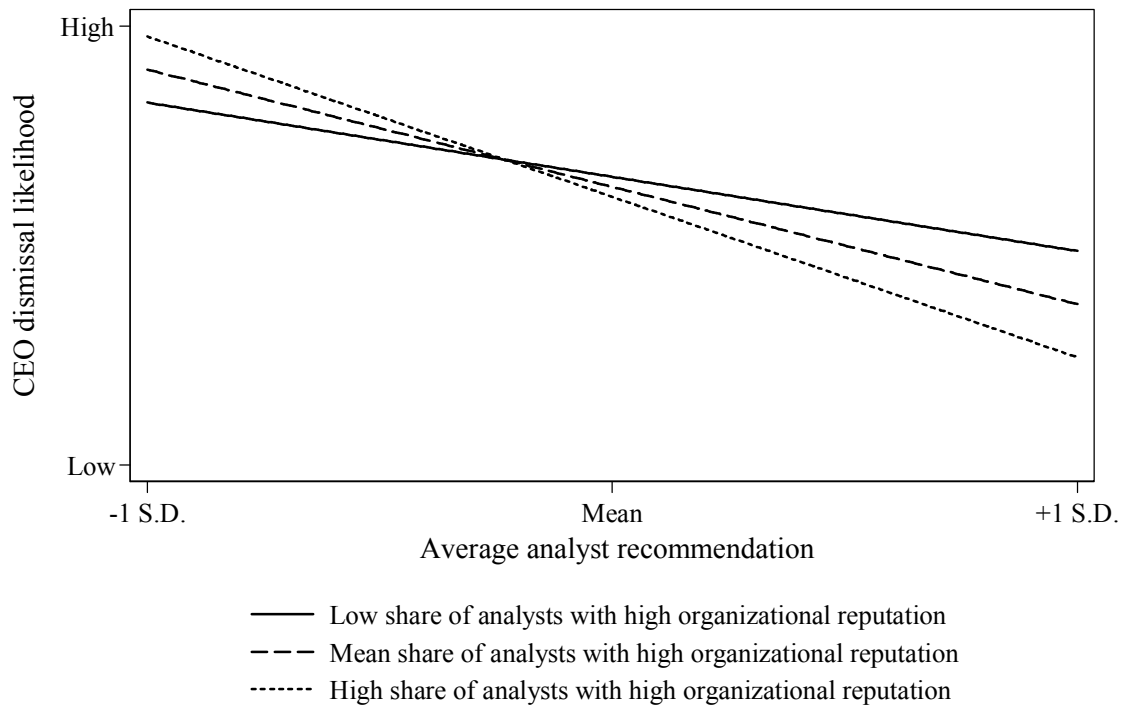
However, when estimating moderation effects in a logit model, one cannot solely rely on the direction and statistical significance of the moderation coefficient (Hoetker, 2007; Wiersema & Bowen, 2009). I thus additionally graphed the moderation effect between the share of analysts with a high personal reputation and the average analyst recommendation (Figure III-1). The vertical axis represents the likelihood of CEO dismissal, while the average analyst recommendation is on the horizontal axis. All variables in the model, except for the average analyst recommendation and the share of analysts with a high personal reputation, are constrained to mean values. I show the moderating effects of high share of analysts with a high personal reputation (mean plus one standard deviation), mean share of analysts with a high personal reputation (mean) and low share of analysts with a high personal reputation (mean minus one standard deviation). As indicated by the graph, a high share of analysts with a high personal reputation strengthens the negative effect of the average analyst recommendation on CEO dismissal. Thus, Hypothesis 2 is supported.

Figure III-1. Average analyst recommendation and CEO dismissal: the moderating effect of personal analyst reputation



Hypothesis 3 predicts that the share of analysts with a high organizational reputation moderates the negative relationship between the average analyst recommendation and the likelihood of CEO dismissal. Thus, Hypothesis 3 predicts a negative moderation effect of the share of analysts with a high organizational reputation on the relationship between the average analyst recommendation and CEO dismissal. Model 4 and 5 provide a direct test of this prediction. In Model 4 and 5, the coefficient for CEO dismissal for the moderation effect between the share of analysts with a high organizational reputation and the average analyst recommendation is negative and significant ($b = -3.64, p < .05$ and $b = -2.76, p < .10$). I similarly graphed the moderation effect in Figure III-2. I show the moderating effects of high share of analysts with a high organizational reputation (mean plus one standard deviation), mean share of analysts with a high organizational reputation (mean) and low share of analysts with a high organizational reputation (mean minus one standard deviation). As indicated by the graph, a high share of analysts with a high organizational reputation strengthens the negative effect of the average analyst recommendation on CEO dismissal. Thus, Hypothesis 3 is supported.

Figure III-2. Average analyst recommendation and CEO dismissal: the moderating effect of organizational analyst reputation



5 Discussion

Overall, the theory and supportive findings presented in this essay point to the conclusion that recommendations by financial analysts with a high personal and organizational reputation carry a greater weight in the board of director's CEO dismissal decision.

In particular, the first set of results indicated that the board of directors considers analyst recommendations beyond classic firm performance measures in its decision whether to dismiss the firm's CEO. Additional results suggest that negative analyst recommendations are especially likely to prompt a dismissal decision by the corporate board when analysts, as indicated by their personal or organizational reputation, are believed to issue more informative recommendations, thereby exerting a disproportionate influence over investors. These findings support the theoretical perspective of the importance of analysts with high reputations as external control mechanisms for

organizations. Thus, analysts with a high personal or organizational reputation are important information intermediaries who possess comparative advantages in providing directors with reliable information that aids the effective monitoring of executives. In effect, if firms are not sufficiently covered by analysts with a high personal or organizational reputation, boards might lack independent and reliable information sources, which can be interpreted as a different type of “illegitimacy discount”⁶.

5.1 Theoretical contributions

In sum, the theory and results in this essay contribute to a better understanding of the role of financial analysts in the dismissal of CEOs. In particular, this essay makes several theoretical contributions to the literature on CEO dismissal and succession.

A central contribution of this essay is to bring the reputation of financial analysts to the realm of board behavior. Thus, this essay extends the classic agency perspective on board behavior by introducing the relevant characteristics of external constituents in the context of CEO dismissal. This essay thus advances recent research by Wiersema and Zhang (2011), which showed that investment analysts may trigger the board’s decision to dismiss the firm’s CEO and that certain contextual and governance factors (e.g., firm performance) serve to moderate that relationship. My findings complement that study by suggesting how analyst reputation can actually influence the board’s dismissal decision as a response to negative analyst recommendations. Taken together, both studies highlight the importance of external control mechanisms such as financial analysts on influencing board behavior. Specifically, these studies jointly show how the broader governance context along with the reputations of financial analysts affects CEO dismissal.

In addition, the theory and corresponding findings of this essay also contribute to the literature on the reputations of financial analysts. Previous literature in this context has largely focused on the impact of analyst reputation on stock prices and investor behavior (e.g., Fang & Yasuda, 2009; Leone & Wu, 2007; Stickel, 1992). In the management field, Westphal and Clement (2008) showed that top executives grant more fa-

vors to reputable analysts rather than they do to non-reputable analysts. This essay complements those findings by indicating that analysts with a high personal or organizational reputation influence board decisions. For example, by better representing investor behavior, reputable analysts are likely to serve as surrogate investors thereby influencing important board actions and perceptions such as CEO dismissal.

The theory and results of this essay also have implications for research on executive succession. This literature has tended to explain CEO dismissal largely with poor corporate performance and corresponding internal agency conditions (cf. Boeker, 1992; Denis et al., 1997; Ocasio, 1994; Shen & Cannella, 2002a; Weisbach, 1988; Zhang, 2006). However, while controlling for corporate performance this essay suggests that financial analysts, by providing an evaluation of the firm's current situation and future prospects, provide valuable information to the board of directors, which might also trigger a decision to replace the CEO. In particular, negative recommendations negatively influence stock prices and investor behavior, thereby generating additional board attention directed toward the performance of top executives. Moreover, the board is likely to be alarmed and react, when analysts with high reputations convey a lack of confidence in the future prospects and strategic direction of the firm. In sum, this essay is among the first to posit and show that reputable analysts may serve as external control mechanism and thereby influence the board's CEO dismissal decision.

5.2 Limitations and future research

To the best of my knowledge, this essay represents the first attempt to empirically examine the role of analyst reputation on the dismissal of CEOs. I believe that the evidence gained is valuable, but the essay has several limitations.

First, I was unable to directly examine processes, but was forced to rely on the outcomes and observable indicators of such factors as personal and organizational reputation. I was not able to gather direct evidence to assess the intentions, evaluations and actions of financial analysts and directors. I could have made stronger inferences about CEO dismissal decisions if I had been able to gain access to such information. Future

studies could follow my theoretical approach by directly examining the processes that moderate the relations between directors and external information intermediaries such as financial analysts.

Second, previous studies have shown that financial analysts tend to issue biased recommendations and forecasts (e.g., Hayward & Boeker, 1998; Hong & Kubik, 2003; Lim, 2001). For example, biased analyst opinions are generally attributed to institutional incentives, such as investment banking relationships (Hayward & Boeker, 1998; Lin & McNichols, 1998; Michaely & Womack, 1999), relations with executives (Das et al., 1998; Francis & Philbrick, 1993; Lim, 2001) and trade generation (Jackson, 2005). It would be interesting to examine how these factors influence board behavior while acknowledging the concept of personal and organizational analyst reputation.

Third, my theoretical approach is based on agency theory and the corresponding role that information intermediaries play on board decisions. However, future studies might also examine different theoretical explanations for the findings of this essay. In particular, social exchange theory (cf. Ekeh, 1974) could shed more light on how external constituents such as financial analysts can socially influence board decisions and vice versa. Very little theory has addressed how social or political factors in the relations between analysts and directors could contribute to important firm outcomes. For example, previous work has not examined how and when directors may actively cultivate social relations with security analysts and how this depends on analyst reputation.

6 Summary

In conclusion, I examined how the reputations of financial analysts affect the board's decision whether to dismiss or retain the firm's CEO. Consistent with the previous literature, the findings confirm that a lower average analyst recommendation results in a higher likelihood of CEO dismissal. Thus, the board of directors seems to consider analyst recommendations beyond traditional firm performance measures in its dismissal decision. Moreover, the findings indicate that negative analyst recommenda-

tions are especially likely to prompt a dismissal decision by the corporate board, when analysts are believed to issue more informative recommendations, thereby exerting a disproportionate influence over investors, as indicated by their personal or organizational reputation. I hope that the results can inspire future research on the role of external control mechanisms in corporate governance, particularly in the context of CEO dismissal.

Endnotes

¹ The first agency problem, moral hazard, refers to the possibility that agents may act opportunistically. The second agency problem, adverse selection, refers to the principal's inability to verify the information agents provide (Jensen & Meckling, 1976).

² I define reputation – consistent with previous research – as the perceived quality of a focal actor (i.e., the analyst) within a certain area that is gained over time (Graffin & Ward, 2010; Podolny, 2005; Rindova, Williamson, Petkova, & Sever, 2005; Washington & Zajac, 2005).

³ Consistent with previous succession research, I coded successions as voluntary in all cases of retirement, death, illness, those involving a move to a prestigious position within or outside the firm or disclosed personal reasons.

⁴ For robustness reasons, I also examined different lag periods: another six-month period (July 1 to December 31) and a 12-month lag for non-dismissal firms. The analysis produced highly consistent results with the six-month period from January 1 to June 30 providing stronger results.

⁵ There is still some ongoing debate on the informative value of those rankings, with opponents arguing that they are rather “popularity contests” with little substance (e.g., Emery & Xi, 2009).

⁶ Zuckerman (1999) finds that a firm's share price trades at a discount when analysts who specialize in the respective industry do not cover the stock – a situation Zuckerman described as “illegitimacy discount”.

IV. The impact of financial analysts and moderating contextual factors on new CEO dismissal

In the second chapter, I examined the pivotal role of specialized knowledge and monitoring incentives in the firm's internal governance structure on executive dismissal. In the third chapter I then investigated the determinants of effective external control mechanisms by relating the personal and organizational reputation of financial analysts to board behavior. However, besides the growing importance of external control mechanisms in executive dismissal decisions, recent succession research has suggested that the effectiveness of making managerial replacements may also depend on the length of the executive's tenure. In particular, previous work has shown that executives in their early years in office more frequently experience dismissals.

In the following chapter, I thus seek to examine the role of financial analysts during the early tenures of top executives. Drawing from agency theory, I argue that a reduction in the average analyst recommendation after the announcement of the successor increases the likelihood of new CEO dismissal independent of post-succession corporate performance. Moreover, I propose that the board of directors is especially likely to dismiss the new CEO as a response to a reduction in analyst recommendations after the announcement of the successor when the information asymmetry about the newly appointed CEO is high or when the analysts' information is perceived to be more valuable. I tested these hypotheses using a large sample of firms listed on the S&P 500 for the 1997–2009 time period. Empirical results strongly support all hypotheses.

The following chapter advances theory by suggesting that financial analysts provide valuable information to the board of directors after the successor announcement, thereby potentially mitigating the adverse selection problem between the board and the newly appointed CEO. Further, it is among the first to investigate the contextual factors that moderate this important relationship.

1 Introduction

The selection of a new CEO is an important decision for a board of directors because it shapes a firm's operational and financial success (Huson et al., 2004; Shen & Cannella, 2002b). However, a new CEO appointment often fails, which can be costly and disruptive to the firm (Khurana, 2001; Shen, 2003). For example, Wiersema (2002) showed that a wrong CEO choice can result in a crisis, which impedes orderly planned succession processes in the future. The board of directors, therefore, often needs to react to a poor CEO selection with the dismissal of the newly appointed CEO (Zhang, 2008). Interestingly, scholars have reported a higher frequency of CEO dismissals and a constant decline of average CEO tenures over recent years (Huson et al., 2001; Kaplan & Minton, 2008; Wiersema & Zhang, 2011; Zhang, 2008). An emerging research stream has thus investigated CEO dismissal at specific tenure stages and argued that a newly appointed CEO faces a higher dismissal risk in the early years of his or her tenure (Shen, 2003; Shen & Cannella, 2002a; Zhang, 2008). Scholars have explained this phenomenon with the lack of sufficient power of a newly appointed CEO (Shen & Cannella, 2002a), poor managerial decisions under extraordinary pressure (Gabarro, 1987) and the adverse selection problem resulting from the information asymmetry between corporate boards and CEO candidates at the time of succession (Zhang, 2008). However, little is known about the information intermediaries that allow the board of directors to identify a wrong CEO choice resulting from adverse selection, thereby providing the foundation for a subsequent early dismissal decision.

In a recent study, Wiersema and Zhang (2011) found that a firm's financial community represents an important information source for the board of directors when deciding whether to replace the incumbent CEO. In particular, they argued that analyst recommendations are an important benchmark by which the board can verify its own evaluation of the CEO's decisions. While financial analysts are likely to contribute to a better assessment of CEO behavior, little is known about whether the board of directors also considers analyst recommendations after the successor announcement to verify CEO selections as a basis for a subsequent dismissal decision of a newly appointed CEO. Further, there has been limited empirical research investigating the context that mod-

erates the degree to which a board is attentive to analyst recommendations when deciding whether to dismiss a newly appointed CEO.

Thus, I examine in this essay whether the recommendations by financial analysts after the announcement of the successor affect the board's assessment of the appointment decision thereby explaining the potential dismissal of a newly appointed CEO. Specifically, I argue that a reduction in the average analyst recommendation after the announcement of the successor¹ increases the likelihood of new CEO dismissal independent of post-succession corporate performance. Moreover, I propose that the board of directors is especially likely to take action as a response to a reduction in analyst recommendations after the announcement of the successor when the information asymmetry between the new CEO and the board is high or when the analysts' information is perceived to be more valuable. Consistent with a growing body of research in this context (Shen & Cannella, 2002a; Zhang, 2008; Zhang & Rajagopalan, 2004), I investigate if a newly appointed CEO is dismissed within a three-year window after succession. In fact, Finkelstein et al. (2009) explicitly proposed this timeframe to investigate early CEO dismissal.

This essay makes several contributions to the literature on CEO dismissal and succession. First, it is among the first to show that a negative opinion of financial analysts on a newly appointed CEO influences his or her dismissal. This essay thus contributes to the literature on the antecedents of CEO dismissal (Boeker, 1992; Shen & Cannella, 2002a; Shen & Cho, 2005; Wiersema & Zhang, 2011; Zhang, 2008). Second, this essay has important implications for previous research on stock price consequences of CEO successions (Karaevli, 2007; Warner et al., 1988; Worrell, Davidson, & Glascock, 1993) by introducing a new determinant (i.e., analyst recommendations) that importantly influences investor reactions. Third, this essay extends recent research by Zhang (2008) on new CEO dismissal by highlighting financial analysts as important information sources for the board of directors when verifying its CEO selection decision as a consequence of adverse selection. Fourth, this essay contributes to the literature on the implications of analyst reputation on corporate outcomes (e.g., Bonner, Hugon, & Walther, 2007; Desai et al., 2000; Fang & Yasuda, 2009; Stickel, 1992) by reporting

how the recommendations by analysts with a high personal reputation affect the dismissal of newly appointed CEOs.

The remainder of this essay is organized into several sections. The next section describes the theory and develops the hypotheses. Subsequently, I provide details on the sample, measures and methods. I then report the results of this essay and present the discussion and ideas for future research. The last section concludes this essay.

2 Theoretical background

Agency theory (Eisenhardt, 1989; Fama & Jensen, 1983; Jensen & Meckling, 1976) has been the dominant theoretical perspective in executive succession research over recent decades (e.g., Denis et al., 1997; Weisbach, 1988; Wiersema & Zhang, 2011; Zhang, 2008). This theory is concerned with the relationship between a principal and an agent, in which the principal delegates tasks to the agent, who then takes actions on behalf of the principal (Jensen & Meckling, 1976; Ross, 1973). The principal–agent relationship faces certain agency problems because of two fundamental assumptions: goal conflicts and information asymmetry (Berle & Means, 1932; Chakravarthy & Zajac, 1984; Eisenhardt, 1989; Jensen & Meckling, 1976). Goal incongruence² is an important assumption for principal–agent relationships, suggesting that agents, e.g., top executives, seek to maximize their own interests, which may diverge from the best interests of their principals, e.g., corporate boards (Zajac, 1990). Information asymmetry exists because the board of directors generally does not have perfect information about the CEO candidate’s ability at the time of succession (‘adverse selection’) (Guasch & Weiss, 1981) and the CEO’s behavior after succession (‘moral hazard’) (Holmström, 1979). While previous literature has typically focused on the moral hazard problem, e.g., by examining the determinants of effective monitoring by corporate boards, this essay, consistent with Zajac (1990) and Zhang (2008), seeks to shed more light on the adverse selection problem³.

Adverse selection refers to the fact that the CEO candidate typically has private information about his or her ability that would be relevant for the board's selection decision (Zajac, 1990). Thus, the board of directors usually has difficulties distinguishing between the ability of CEO candidates; a fact that could result in the wrong CEO choice. Previous research has provided various reasons why a new CEO may fail to satisfy board requirements. First, a newly appointed CEO will face difficulties transferring his or her industry- and firm-specific human capital across industries and firms (Castanias & Helfat, 1991; Harris & Helfat, 1997). Second, because the CEO position is unique in that he or she has the major responsibility for corporate performance (Drazin & Rao, 1999), even inside candidates may not be able to fully meet the demands of the position at the top of the pyramid. Third, previous experience in a CEO position does not automatically translate into high CEO ability (Zhang & Rajagopalan, 2004). Altogether, one can conclude that the adverse selection problem may cause poor CEO selection decisions.

Agency theorists have argued that the board of directors can update its ability assessment of the new CEO after the announcement of the successor (Holmström, 1999). If during this process the board discovers that the newly appointed CEO has a low ability, then the directors have little option but to dismiss the CEO (Walsh & Seward, 1990). For example, Graffin, Carpenter and Boivie (2011:751) quoted a director with "if the stock tanks after our announcement then I think [...] what did we miss? Can't help to have buyer's remorse". Recent research in this context has suggested that corporate boards can benchmark their initial ability estimates with the opinions of external constituents, such as financial analysts (Fang & Yasuda, 2009; Farrell & Whidbee, 2002; Wiersema & Zhang, 2011). In this essay, I thus suggest that the information provided by financial analysts may aid the board of directors to identify a poor CEO selection and subsequently dismiss a CEO who seems to lack ability. Moreover, I propose that the level of information asymmetry – measured by new CEO origin – and the perceived value of the underlying information signal – measured by the personal reputation of the analysts – moderate the relationship between analyst recommendations and new CEO dismissal.

2.1 The impact of analyst recommendations on new CEO dismissal

While financial analysts cannot directly make corporate decisions, they can serve as important information intermediaries for the board of directors. Wiersema and Zhang (2011) were among the first to show that financial analysts provide important information when a board seeks to decide whether to dismiss an incumbent CEO. In particular, the authors found that analyst recommendations can trigger corporate dismissal decisions, a relationship that is additionally moderated by several contextual factors (e.g., corporate performance). However, little is known about whether financial analysts also provide information on the new CEO's ability, which prompts the board of directors to dismiss a newly appointed CEO. This research gap is particularly relevant given the importance of the adverse selection problem (Zajac, 1990; Zhang, 2008). I propose that analyst recommendations are an important benchmark by which the board verifies its appointment decision for two reasons.

First, while the selection decision of the board usually takes place behind closed doors, a change in leadership must also satisfy the demands of external stakeholders (Khurana, 2001; Lorsch et al., 1999; Shen & Cannella, 2003). Financial analysts, the financial press or shareholders do not have access to information on the event until the organization releases it (Graffin et al., 2011). This is important because the release of private information on potential CEO candidates before making the appointment decision could cause economic harm to the firm and shareholders and might irrespectively damage the reputations of the rejected candidates (Khurana, 2002). Thus, corporate boards are unlikely to be able to incorporate external opinions in their selection decisions in advance and thereby they have to rely on reactions to their announcement to update their ability estimate. External constituents are likely to respond to the appointment of a new CEO and thus they can influence the board's own assessment of the new CEO's ability. Financial analysts work for brokerage houses, investment banks or independent research firms and they routinely collect and process firm-specific information, thereby providing an external assessment of the future investment prospects of public companies (Chung & Jo, 1996; Li et al., 2009; Wiersema & Zhang, 2011). As such, financial analysts regularly issue specific recommendations on

a company's stock, which includes an assessment of the firm's CEO. For example, financial analysts might downgrade their stock recommendations after the appointment of a new CEO if their evaluation suggests that the new CEO lacks ability. Analyst recommendations, therefore, allow the board to incorporate new information in its ability estimate, which can trigger a dismissal when this information conveys negative news.

Second, corporate boards are likely to consider analyst opinions in their assessments of a new CEO because analyst recommendations have a significant impact on investor behavior (e.g., Womack, 1996). Previous research has provided inconclusive results regarding the share price impact of CEO successions (for an overview, see Finkelstein et al., 2009). For example, Worrell et al. (1993) found that shareholders respond positively to the announcement of a new CEO, while Warner et al. (1988) reported negative shareholder reactions to CEO selection announcements. Thus, shareholders are likely to have an interest in identifying the wrong CEO choices. Previous research in this context has documented that investors usually follow analyst recommendations in order to reduce potential information asymmetries (Stickel, 1992; Womack, 1996; Zuckerman, 1999). For example, Womack (1996) found significant price reactions to recommendation changes, with the market response to downgrades being more severe. Hayward and Boeker (1998) suggested that a reduction in stock market valuation impairs a firm's access to capital, which ultimately affects its strategic outcomes (e.g., acquisitions), the level of executive compensation and managerial career prospects. As a result, it is likely that the board of directors considers information that can materially influence the trading behavior of investors in its ability reassessment of the newly appointed CEO.

For these reasons, I argue that analyst recommendations are an important information signal that allows the board to update its ability estimate of the newly appointed CEO, which may ultimately trigger a subsequent dismissal decision. In particular, I expect that the board will be more likely to dismiss a new CEO as a response to analyst recommendations when the recommendations convey negative news. Thus, I propose that a reduction in the average analyst recommendation after the announcement of the

successor increases the likelihood of new CEO dismissal. Or said differently, the change in the average analyst recommendation is negatively related to new CEO dismissal.

Hypothesis 1: The change in the average analyst recommendation after the successor announcement is negatively related to the likelihood of new CEO dismissal.

2.2 The moderating effect of new CEO origin

Whether the board of directors decides to dismiss the newly appointed CEO likely depends not only on the nature of the information itself (e.g., a reduction in the average analyst recommendation), but also on the level of information asymmetry at the time of succession. Under the assumption of perfect information, the board would not need to verify its selection decision because the ability of the CEO candidate would be perfectly known in advance. However, given the information asymmetry assumption in agency theory, the board cannot be sure if the new CEO appointment is an appropriate choice.

One important determinant that affects the degree of information asymmetry is the origin of the newly appointed CEO (Zajac, 1990; Zhang, 2008). New CEO origin refers to the fact whether a new CEO was an employee of the firm at the time of his or her appointment as CEO (Kesner & Sebor, 1994). In particular, inside CEOs are hired from within the firm, while outside CEOs are hired from outside firms (Zhang & Rajagopalan, 2003). Scholars have argued that the level of information asymmetry is lower with inside CEO candidates because the board has had the opportunity to frequently update its ability estimate about the CEO candidate during their joint work experience (Holmström, 1999; Zajac, 1990; Zhang, 2008). The weaker performance of outside CEOs relative to inside CEOs, therefore, often results from the higher information asymmetry between the board and the CEO candidate (e.g., Shen & Cannella, 2002b). Zhang (2008) was among the first to extend this argument to the dismissal of new CEOs. In particular, she argued that outside successions directly increase the

dismissal likelihood of newly appointed CEOs because boards make weaker selection choices under such circumstances. In this essay, I apply this logic to the board's decision to consider analyst recommendations to verify a new CEO appointment decision. In particular, I propose that the higher information asymmetry in outside successions strengthens the relationship between analyst recommendations after the announcement of the successor and the dismissal of a newly appointed CEO.

I follow a large body of research that has argued that financial analysts reduce information asymmetry by disseminating corporate information to their stakeholders (in particular investors). For example, Brennan and Hughes (1991) noted that analyst recommendations can reduce information asymmetry between investors and firms by producing information that is required for investors to trade. Financial analysts also serve as important information intermediaries for the board of directors (Wiersema & Zhang, 2011). In particular, when outside CEOs take office, the board's uncertainty with regard to the selection decision is relatively high compared with the promotion decision of an inside CEO. Consequently, additional information on the ability of the newly appointed CEO will be more valuable for the board of directors. As a result, I expect the board to be more attentive to analyst opinions in its update of the CEO ability estimate when the new CEO is an outsider. Thus, the dismissal of a newly appointed CEO is likely to depend on the origin of the new CEO. I thus argue that new CEO origin moderates the negative relationship between the change of analyst recommendations after the announcement of the successor and the dismissal of a newly appointed CEO.

Hypothesis 2: New CEO origin moderates the negative relationship between the change in the average analyst recommendation after the successor announcement and the likelihood of new CEO dismissal.

2.3 The moderating effect of personal analyst reputation

In addition to the information asymmetry surrounding the new CEO succession, I expect that the perceived value of the information that analysts provide will also affect

how attentive boards are to analyst opinions. Financial analysts are heterogeneous. One important determinant that is likely to increase the perceived quality, and therefore the value of the information provided by them, is the analysts' personal reputation.

First, a high personal reputation of financial analysts increases the quality of their estimates (e.g., Desai et al., 2000; Stickel, 1992). For example, Stickel (1992) highlighted that personally reputable analysts are better forecasters than are non-reputable analysts. Similarly, Fang and Yasuda (2009) argued that analysts with a high personal reputation produce more valuable information than do analysts with a low reputation. Thus, when it comes to the identification of poor CEO selections, the board is more likely to consider information that it perceives to be more valuable. Consequently, it will be more attentive to recommendations by analysts with a high personal reputation, because the quality of their coverage is likely to be comparatively higher.

Second, relative to non-reputable analysts, analysts with a high personal reputation have a larger effect on stock valuations and investor trading behavior. For example, Stickel (1992) found that analysts with a high personal reputation have a larger impact on stock prices than do non-reputable analysts. Recent evidence has also suggested that recommendations by personally reputable analysts are more influential in the sense that they result in more investor portfolio rebalancing (Loh & Stulz, 2011). Thus, the board is more likely to respond to recommendations by analysts with a high personal reputation because those recommendations will more strongly affect stock valuations, investor trading behavior and, ultimately, the firm's access to capital than will recommendations by non-reputable analysts.

Third, the visibility of analysts with a high personal reputation in the financial community is higher than is the visibility of non-reputable analysts (Chan et al., 2004). Because personal reputation provides financial analysts with better access to institutional investors, corporate executives and directors, it ultimately facilitates peer respect (Hayward & Boeker, 1998). Mayew (2008) found that analysts with a high personal reputation have a higher participation probability and thus higher visibility in corporate conference calls. Moreover, analysts with a high personal reputation can expect

higher compensation and trading commissions (Jackson, 2005; Stickel, 1992; Trueman, 1994) and more job promotions (Clarke et al., 2007; Hong & Kubik, 2003) compared with non-reputable analysts, which should further increase their visibility in the financial community. Thus, analysts with a high personal reputation are likely to receive disproportionate attention from the board of directors when it seeks to update its ability estimate of the new CEO.

For these reasons, I expect that recommendations by analysts with a high personal reputation carry a greater weight in the board of director's assessment of the new CEO's ability. The negative information conveyed in negative analyst recommendations is more critical and visible when provided by analysts with a high personal reputation and thus is more likely to influence the board of directors in its update of the new CEO ability estimate thereby affecting the dismissal likelihood of new CEOs. I thus argue that the share of analysts with a high personal reputation moderates the negative relationship between the change of analyst recommendations after the announcement of the successor and the dismissal of a newly appointed CEO.

Hypothesis 3: The share of analysts with a high personal reputation moderates the negative relationship between the change in the average analyst recommendation after the successor announcement and the likelihood of new CEO dismissal.

3 Methods

3.1 Data and Sample

The sample of this essay was randomly drawn from the population of large, publicly traded US companies listed on the S&P 500 index for at least one year between 1997 and 2009. I focused on S&P 500 companies because I needed to identify firms that have widely traded stocks and are thus followed by financial analysts. I decided to use this timeframe because it covers sufficient years before and after the enactment of the SOX in 2002 and it should, therefore, support the generalization of my findings. The

relevant sample consisted of 157 companies that exhibited no significant differences in terms of sales or assets compared with the entire S&P 500 population. Within this sample, I identified 190 CEO successions. After excluding observations with missing information, the final sample consisted of 151 CEO successions.

3.2 Dependent variable

New CEO dismissal. The dependent variable of this essay is new CEO dismissal, which refers to a situation in which a newly appointed CEO is dismissed within three years of taking the position. My approach to classifying turnovers as dismissals was based on those of Weisbach (1988), Parrino (1997) and Farrell and Whidbee (2003). I classified as dismissals all CEO changes other than those arising from retirement, death, illness, those involving a move to a prestigious position within or outside the firm or disclosed personal reasons. I relied on news reports published in the Dow Jones Factiva database over a four-year period, from two years before the departure to two years after the departure (if available), to identify the circumstances under which the new CEOs left office. Overall, 43 CEOs left office within three years of taking office. There were six cases in which the new CEO retired, five cases in which the new CEO left office because he was promoted to the chairperson position of the company, four cases in which the new CEO accepted a similar position at another firm, three cases in which the new CEO left office because of death or health issues, two cases in which the new CEO departed because of mergers or acquisitions and one case in which the new CEO departed for disclosed personal reasons. I identified these 21 cases as routine turnovers. I identified 11 cases in which the new CEO was reported as having resigned unexpectedly or immediately owing to poor performance, five cases in which the new CEO was directly reported as having been fired or ousted, three cases in which the new CEO was reported as having resigned because of policy and personality disagreements, two cases in which the new CEO was reported as having resigned owing to a scandal and one case where the departure was for undisclosed personal reasons. I identified these 22 cases as dismissals. Based on this classification, I created a dichotomous time-varying variable – new CEO dismissal – which was coded 1 in a

year in which a new CEO was dismissed and 0 otherwise. Twenty-one new CEOs who voluntarily left office within three years of taking the position were treated as censored cases and were included in the sample (Hosmer, Lemeshow, & May, 1999). Altogether, 108 new CEOs remained in position three years after taking office, and they were also treated as censored observations. Overall, there were a total of 452 CEO-years for data analyses.

3.3 Independent variables

Average analyst recommendation change. I measured the average analyst recommendation change as the difference between the mean analyst recommendation of the first three months immediately after the month in which the succession was announced and the three months immediately before the month in which the successor was announced. I calculated the average analyst recommendation from data gathered from the I/B/E/S database. The I/B/E/S database provides historical analyst-based and consensus recommendation data on a large number of US and international firms. The I/B/E/S database uses a five point rating system (“Strong Buy”, “Buy”, “Hold”, “Underperform”, “Sell”), which transforms individual recommendation definitions into a universal rating system with higher scores implying lower recommendations. I reverse coded the monthly mean recommendation by subtracting it from six in order to allow for easier interpretation. Moreover, I weighted the monthly average by the number of covering financial analysts to account for potential variation in analyst coverage. The results were robust to alternative time period definitions (two and four months before and after the successor announcement) with the original definition providing the strongest results. For the firm sample, the variable average analyst recommendation change ranged from -0.82 to 1.43 , with a mean of 0.02 and a standard deviation of 0.27 .

New CEO origin. I coded new CEO origin 1 for new CEOs who had a firm tenure of less than two years assuming position and 0 otherwise (Cannella & Lubatkin, 1993; Harris & Helfat, 1997; Zhang, 2008). I gathered the data on new CEO origin from S&P’s Register of Corporations, Directors, and Executives, Marquis Who’s Who,

corporate proxy statements and press articles published in the Dow Jones Factiva database. For the firm sample, new CEO origin ranges from 0 to 1, with a mean of 0.32 and a standard deviation of 0.47.

Share of analysts with high personal reputation. I measured the share of analysts with a high personal reputation as the average number of reputable analysts divided by the average number of analysts covering the firm in the three months before and after the new CEO appointment. I used the All-America designation from the *Institutional Investor* magazine as an observable measure of an analyst's personal reputation, which is consistent with a large body of research (Cliff & Denis, 2004; Fang & Yasuda, 2009; Hong & Kubik, 2003; Krigman et al., 2001; Li et al., 2009). In the annual survey, analyst customers (e.g., portfolio managers) evaluate the analysts along multiple dimensions such as "industry knowledge", "responsiveness", "timely communication", "professionalism" and "management access". On that basis, they elect all-star analysts and the October-issue of the magazine publishes the rankings. The top-placed analysts per industry are so-called "all-star analysts", which is arguably the most visible and coveted status among analysts and, therefore, a powerful determinant of analyst reputation (Fang & Yasuda, 2009; Leone & Wu, 2007).

I hand-collected the all-star list for each year during the sample period and matched analyst names in *the Institutional Investor* polls to the names in the I/B/E/S dataset. There are four levels of All-America status, ranging from First-Team All-America to Runners-up All-America. In the primary analyses, I defined an all-star analyst as First-Team All-America (so-called "champion all-star"). However, the results were robust for alternative all-star definitions with the original definition providing the strongest results. Consistent with previous literature (e.g., Hong & Kubik, 2003) I assumed that the analyst maintains the all-star status for 12 months after the publication of the polls. For the firm sample, the share of analysts with a high personal reputation ranged from 0 to 0.31, with a mean of 0.03 and a standard deviation of 0.05.

3.4 Control variables

Firm size. I controlled for firm size because larger firms are more likely to be covered by a larger number of financial analysts, thereby potentially influencing the board's decision to incorporate analyst recommendations in its new CEO ability reassessment. In the analysis, I measured firm size as the natural logarithm of total sales. I updated this variable yearly. As an alternative, firm size was measured as the natural logarithm of the total number of employees. Both measures of firm size produced consistent results. I gathered the data on firm size from Compustat.

Firm performance. I controlled for firm performance, because research has consistently shown that poor pre-succession performance increases the likelihood of CEO dismissal (Boeker, 1992; Huson et al., 2001; Shen & Cannella, 2002a; Zhang, 2006). In line with Zhang (2008), I controlled for both concurrent and pre-succession firm performance. I measured concurrent firm performance as the average industry adjusted ROA, in which firm ROA was adjusted for industry median ROA (excluding the focal firm) (Huson et al., 2004). This measure of industry-adjusted firm performance helped differentiate firms that performed poorly in an absolute sense from firms that performed poorly relative to their respective industries. I updated this variable yearly and lagged the dependent variable by one year. I measured pre-succession firm performance as the three-year average industry-adjusted ROA for the time period before the succession. I updated this variable yearly. I gathered the data on both firm performance measures from Compustat.

Board independence. I controlled for board independence because research has documented that outside directors are more likely to dismiss poor performing executives than are inside directors (e.g., Weisbach, 1988). If outside directors are more likely to replace a poor performing executive, then the increase in outside director representation on the board should further strengthen this effect (Huson et al., 2001). I measured board independence as the number of outside directors divided by the total number of directors on the firm's board. I updated this variable yearly. I gathered the data on board independence from annual corporate proxy statements and 10-K reports.

Analyst coverage. I controlled for the number of analysts that issue recommendations for a firm because higher analyst coverage implies increased scrutiny by investors along with lower information asymmetry (Brennan & Subrahmanyam, 1995). I measured analyst coverage as the average number of financial analysts that provide recommendations for the firm in the six-month period. I updated this variable yearly because analyst coverage can change over time. I gathered the data on analyst coverage from the I/B/E/S database.

Analyst consensus. I controlled for analyst consensus or the standard deviation across the analyst recommendations of a firm since a lower variation is likely to increase the quality of the information signal the board receives, which ultimately might affect the likelihood of CEO dismissal. Consistent with Wiersema and Zhang (2011), I measured analyst consensus as the inverted standard deviation of analyst recommendations for a firm in the six-month period weighted by the corresponding analyst coverage. I updated this variable yearly. I gathered the data on analyst consensus from the I/B/E/S database.

New CEO age. I controlled for the age of the newly appointed CEO because firms may have a mandatory retirement policies. Controlling for the age of the new CEO, therefore, helps differentiate retirement from involuntary succession (Ocasio, 1994; Puffer & Weintrop, 1991), thus strengthening my results. I measured new CEO age as the number of years between the fiscal year and the year in which the new CEO was born. I updated this variable yearly. I gathered the data on new CEO age from annual corporate proxy statements, Marquis Who's Who and press articles.

New CEO duality. I also controlled for new CEO duality because research has shown that CEO duality can adversely affect the board's ability to make a dismissal decision (Finkelstein & D'Aveni, 1994). CEO duality occurs when the same person holds both the CEO and board chairperson positions in a corporation (Rechner & Dalton, 1991). I coded new CEO duality 1 in years in which the new CEO was also the chairperson of the firm's board and 0 otherwise. I updated this variable yearly. I gathered the data on

new CEO duality from S&P's Register of Corporations, Directors, and Executives, Marquis Who's Who and annual corporate proxy statements.

New CEO stock ownership. I controlled for new CEO stock ownership because the previous literature has shown that ownership stakes can align CEO interests with shareholder goals, ultimately influencing the likelihood of new CEO dismissal (e.g., Boeker, 1992). I measured new CEO stock ownership as the proportion of the total number of ordinary shares retained by the new CEO. I updated this variable yearly. I gathered the data on new CEO stock ownership from annual corporate proxy statements.

Previous CEO experience. I controlled for previous CEO experience because Khurana (2001) suggested that a new CEO with previous CEO experience in other firms may face a reduced risk of dismissal. Consistent with Zhang (2008), I coded previous CEO experience 1 if the new CEO had been a CEO at another firm and 0 otherwise. I gathered the data on previous CEO experience from Marquis Who's Who and annual corporate proxy statements.

Time. Following Allison (1984) and Zhang (2008), I added two time dummy variables in the statistical model: I coded year two 1 for a new CEO's second year in position and 0 otherwise, and I coded year three 1 for a new CEO's third year in position and 0 otherwise.

3.5 Analytical methodology

In response to various calls for longitudinal studies in management research (e.g., Finkelstein et al., 2009), I used a discrete time event history analysis to test the hypotheses. Event history models are especially appropriate for analyzing longitudinal data when the dependent variable is a discrete event and the timing of the event's occurrence is of particular interest (Allison, 1984; Tuma & Hannan, 1984; Yamaguchi, 1991). The dependent variable – new CEO dismissal – is binary and I coded it 1 in a year in which a new CEO was dismissed and 0 otherwise (i.e., voluntary CEO depart-

ture or no CEO departure). I thus used discrete time event history analysis that estimates logit models of binary outcomes for pooled cross-sectional time series data in which the same individuals were observed at multiple time intervals (Allison, 1984; Yamaguchi, 1991). Covariates were allowed, but not required, to vary between time intervals. I used a robust variance estimator for cluster data to correct for nonindependence, which may arise because new CEOs may be observed in multiple intervals (Fischer & Pollock, 2004). This method treats each cluster as a “super-observation” that contributes to the variance estimate and thus generates robust estimates. Using event history analysis offers two central benefits in this research setting. First, it can incorporate time series variation into parameter estimates (Shen & Cannella, 2002a). Second, it can resolve sample selection problems that result from censoring (Blossfeld, Golsch, & Rohwer, 2007).

4 Results

Table 1 reports the variable means, standard deviations and correlation coefficients for all observations ($N = 452$). Table 2 summarizes the results of the discrete time event history analysis that predicts the likelihood of new CEO dismissal in relation to predictor and control variables. Overall, the chi-square statistics for Models 1 to 5, reported in Table 2, indicate very strong model significance ($p < .01$). Similarly, the pseudo R-square measures, which range from 0.19 to 0.35 in all research models, indicate good predicative ability for new CEO dismissal.

Hypothesis 1 predicts a negative effect of the change in the average analyst recommendation on the likelihood of new CEO dismissal. This hypothesis is strongly supported because the coefficient for new CEO dismissal in all five models is negative and significant. For example, in Model 2 the coefficient for the effect of the change in the average analyst recommendation on new CEO dismissal is -4.20 ($p < .01$).

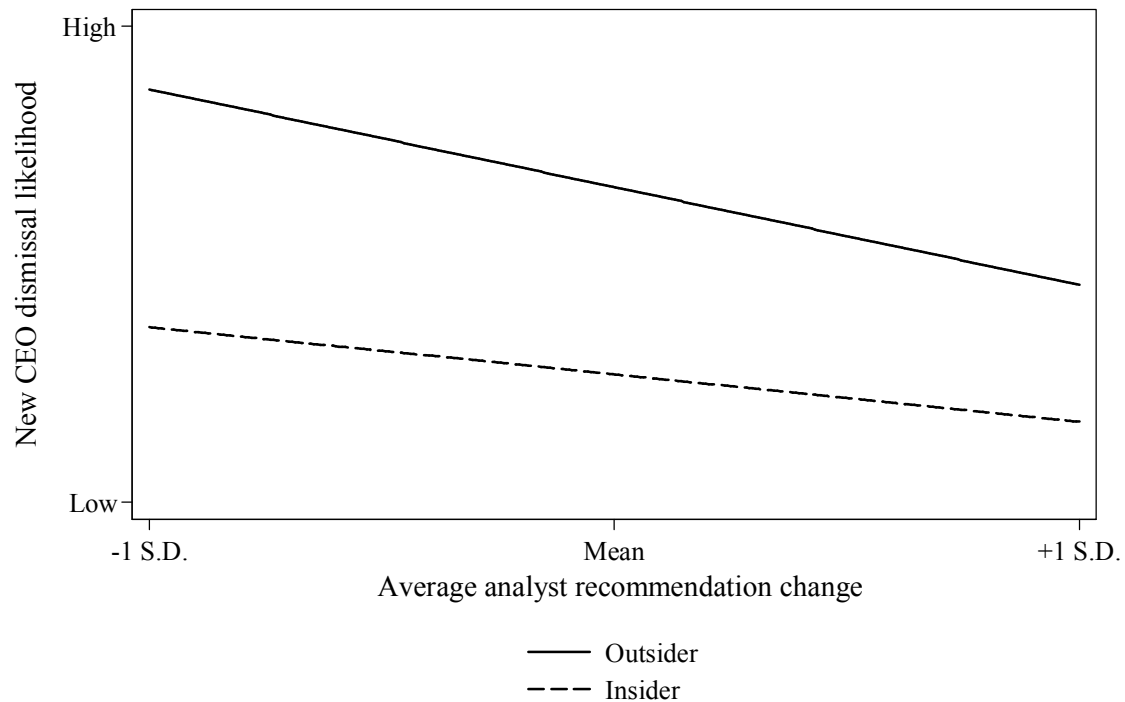
To test the moderating hypotheses that new CEO origin (H2) and the share of analysts with a high personal reputation (H3) moderate the effect of the change in the average

analyst recommendation on the likelihood of new CEO dismissal I added moderation terms that were the product of the mean-centered moderator variable and the mean-centered analyst recommendation change measure. The chi-square statistics suggest that the models including moderation effects (Models 3, 4 and 5) are highly significant compared with the models without moderation effects (Models 1 and 2).

Hypothesis 2 predicts that new CEO origin will moderate the negative relationship between the change in the average analyst recommendation and the likelihood of new CEO dismissal. Thus, Hypothesis 2 predicts a negative moderation effect of new CEO origin on the relationship between the change in the average analyst recommendation and new CEO dismissal. Model 3 and 5 provide a direct test of this prediction. In Model 3 and 5, the coefficient for CEO dismissal on the moderation effect between the new CEO origin and the change in the average analyst recommendation is negative and significant ($b = -5.21, p < .05$ and $b = -3.98, p < .10$).

However, when estimating moderation effects, one cannot solely rely on the direction and statistical significance of the moderation coefficient (Hoetker, 2007; Wiersema & Bowen, 2009). I thus additionally graphed the significant moderation effect from Model 2 (Figure IV-1). The vertical axis represents the likelihood of new CEO dismissal. I graphed the average analyst recommendation change on the horizontal axis. All variables in the model, except for change in analyst recommendations and new CEO origin, are constrained to mean values. The values for new CEO origin are constrained to 0 (insider) and 1 (outsider). As indicated in Figure IV-1, a new outsider CEO strengthens the relationship between the change in the average analyst recommendation and new CEO dismissal, whereas a new insider CEO weakens it. Thus, Hypothesis 2 is supported.

Figure IV-1. Average analyst recommendation change and new CEO dismissal: the moderating effect of new CEO origin



Hypothesis 3 predicts that the share of analysts with a high personal reputation moderates the negative relationship between the change in the average analyst recommendation and the likelihood of new CEO dismissal. Thus, Hypothesis 3 predicts a negative moderation effect of the share of analysts with a high personal reputation on the relationship between the change in the average analyst recommendation and new CEO dismissal. Model 4 and 5 provide a direct test of this prediction. In Model 4 and 5, the coefficient for new CEO dismissal for the moderation effect between the share of analysts with a high personal reputation and the change in the average analyst recommendation is negative and significant ($b = -55.76, p < .01$ and $b = -51.03, p < .10$).

Table IV-1.
Variable means, standard deviations and correlation coefficients

Variable	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) Firm size	8.85	1.32														
(2) Presuccession firm performance	0.00	0.05	0.06													
(3) Concurrent firm performance	-0.01	0.07	0.03	0.51												
(4) Board independence	0.70	0.15	0.00	-0.13	-0.08											
(5) Analyst coverage	11.43	6.02	0.55	-0.02	-0.03	0.05										
(6) Analyst consensus	-0.80	0.21	-0.31	-0.14	-0.02	-0.01	-0.22									
(7) New CEO age	53.47	6.45	-0.03	0.10	0.00	0.11	-0.15	0.01								
(8) New CEO duality	0.13	0.34	0.10	0.03	0.07	0.19	0.08	-0.05	0.10							
(9) New CEO stock ownership	0.17	0.35	-0.17	0.00	-0.08	-0.05	-0.03	0.05	0.07	-0.08						
(10) Previous CEO experience	0.87	0.33	0.00	-0.02	0.02	0.03	0.01	0.03	0.09	0.03	0.08					
(11) Year two	0.33	0.47	-0.01	0.00	-0.08	-0.03	0.00	0.00	0.00	-0.09	0.00	0.00				
(12) Year three	0.33	0.47	0.04	0.00	0.07	0.12	0.00	0.00	0.11	0.37	0.01	0.00	-0.50			
(13) Average analyst recommendation change	0.02	0.27	-0.13	-0.06	-0.03	-0.03	-0.06	0.08	-0.16	0.06	-0.04	-0.03	0.00	0.00		
(13) New CEO origin	0.32	0.47	-0.02	-0.13	-0.09	0.15	-0.03	0.13	0.09	0.02	-0.10	-0.08	0.00	0.00	0.06	
(14) Share of analysts with high personal reputation	0.03	0.05	0.04	0.01	0.00	0.06	0.03	-0.05	-0.14	0.00	0.05	-0.11	0.00	0.00	-0.04	-0.01

N = 452. Correlations larger than 0.1 are significant at the level of $p < 0.05$, and those larger than 0.13 are significant at $p < 0.01$.

Table IV-2.
Results of discrete event history analyses predicting new CEO dismissal^a

	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Constant</i>	-9.84 *** (3.39)	-7.66 ** (3.75)	-5.84 (3.93)	-7.02 * (4.07)	-5.70 (4.15)
<i>Controls</i>					
Firm size	0.05 (0.26)	-0.15 (0.28)	-0.26 (0.29)	-0.22 (0.30)	-0.28 (0.30)
Presuccession firm performance	6.30 (5.58)	10.24 * (6.17)	10.28 * (5.81)	10.75 * (6.33)	10.75 * (6.03)
Concurrent firm performance	-6.86 ** (3.23)	-7.73 ** (3.72)	-7.51 ** (3.44)	-7.16 ** (3.50)	-7.13 ** (3.32)
Board independence	1.50 (1.40)	1.52 (1.43)	0.85 (1.40)	1.13 (1.37)	0.80 (1.39)
Analyst coverage	0.00 (0.05)	0.02 (0.06)	0.03 (0.05)	0.02 (0.05)	0.03 (0.05)
Analyst consensus	0.43 (0.84)	0.37 (0.96)	0.34 (1.08)	0.24 (0.91)	0.42 (1.04)
New CEO age	0.08 ** (0.04)	0.06 (0.04)	0.05 (0.04)	0.05 (0.04)	0.05 (0.04)
New CEO duality	-1.00 * (0.57)	-0.72 (0.64)	-0.56 (0.65)	-0.67 (0.63)	-0.57 (0.64)
New CEO stock ownership	-4.08 ** (1.84)	-4.33 (2.73)	-5.02 (3.34)	-3.66 (2.23)	-4.31 (2.70)
Previous CEO experience	0.97 (1.08)	0.91 (1.04)	0.77 (1.01)	0.85 (1.06)	0.80 (1.03)
Year two	1.25 *** (0.48)	1.46 *** (0.53)	1.66 *** (0.59)	1.72 *** (0.65)	1.81 *** (0.69)
Year three	2.05 *** (0.50)	2.29 *** (0.51)	2.52 *** (0.55)	2.58 *** (0.61)	2.67 *** (0.64)
<i>Independent variables</i>					
Average analyst recommendation change		-4.20 *** (1.14)	-2.21 * (1.31)	-4.75 *** (1.11)	-3.35 ** (1.46)
New CEO origin		0.57 (0.49)	-0.15 (0.60)	0.37 (0.55)	-0.06 (0.56)
Share of analysts with high personal reputation		-0.05 (3.88)	-2.13 (4.70)	-8.06 (7.17)	-7.59 (6.72)
<i>Interactions</i>					
Avg. analyst recommendation change X new CEO origin			-5.21 ** (2.23)		-3.98 * (2.41)
Avg. analyst recommendation change X Share of analysts with high personal reputation				-55.76 *** (20.23)	-51.03 * (26.62)
Wald Chi-square	76.13 ***	88.25 ***	91.38 ***	109.40 ***	116.34 ***
Pseudo R ²	0.19	0.33	0.33	0.35	0.35
N	452	452	452	452	452

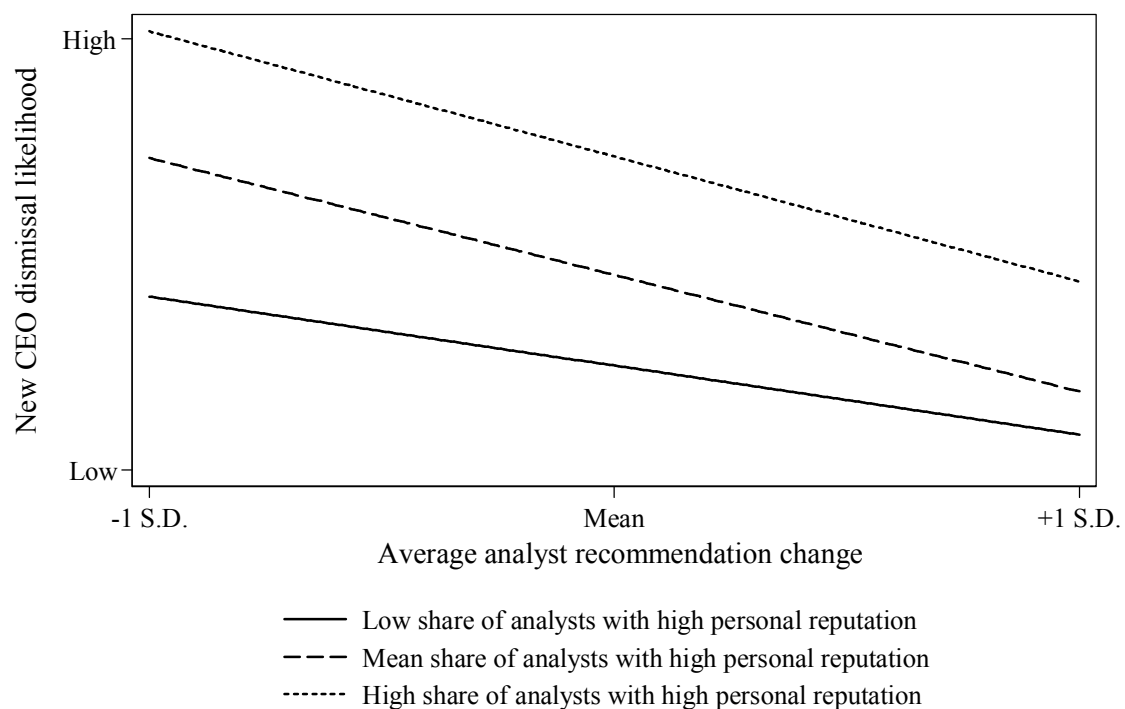
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

^a Standard errors are in parentheses.

I plotted the results in Figure IV-2. All variables in the model, except for change in analyst recommendations and share of analysts with a high personal reputation, are constrained to mean values. I show the moderating effects of a high share of analysts with a high personal reputation (mean plus one standard deviation), mean share of analysts with a high personal reputation (mean) and low share of analysts with a high

personal reputation (mean minus one standard deviation). As indicated in Figure IV-2, a high share of analysts with a high personal reputation strengthens the relationship between a change in the average analyst recommendation and new CEO dismissal, whereas a low share of analysts with a high personal reputation weakens it. Thus, Hypothesis 3 is supported.

Figure IV-2. Average analyst recommendation change and new CEO dismissal: the moderating effect of personal analyst reputation



The control variables also yielded some interesting results. Strong concurrent performance significantly decreases the likelihood of new CEO dismissal in all models (e.g., $b = -7.13$, $p < .05$ in Model 5). Moreover, there is weak evidence that new CEO stock ownership decreases the likelihood of his or her dismissal (e.g., $b = -4.08$, $p < .05$ in Model 1). Finally, the coefficients for the two year dummy variables were positive and significant.

5 Discussion

Although the determinants of CEO dismissal have received considerable research attention, only more recently have scholars begun to examine dismissal decisions at specific stages of CEO tenure. For example, Zhang (2008) was among the first to empirically investigate the causes of the dismissal of newly appointed CEOs. To advance theory in this context, I investigated how the board of directors identifies a poor CEO selection as a basis for a potential subsequent dismissal decision. In this regard, I examined whether the board of directors considers analyst recommendations in its decision whether to dismiss a newly appointed CEO and I highlighted the contextual factors that strengthen this relationship.

The first set of results suggests that the recommendations by financial analysts after the announcement of the successor represent an important source of information that can assist the board in updating its ability estimate after appointing a new CEO thereby affecting the likelihood of his or her dismissal. Consequently, a reduction in the average analyst recommendation after the succession increases the dismissal likelihood of the new CEO, indicating that boards follow analyst opinions when assessing their selection decisions. This finding supports the adverse selection perspective that uncertainty about the candidate's ability prompts directors to verify their selection choices with the recommendations by financial analysts after the announcement of the successor.

The next set of results indicates that the level of information asymmetry affects the degree to which the board of directors considers analyst recommendations when making a dismissal decision. In particular, I find that the board will be more attentive to analyst opinions when the new CEO is an outside hire. When an outside CEO takes office, the board's uncertainty with regard to the CEO's ability is relatively high, thereby causing the board to rely more heavily on analyst opinions. If these opinions are negative, the dismissal likelihood of new CEOs will increase.

Additional results suggest that the perceived quality of the conveyed information affects how attentive boards are to analyst recommendations. In particular, I find that relative to non-reputable analysts, the board is more attentive to the recommendations by analysts with a high personal reputation in its decision whether to dismiss a newly appointed CEO. This finding suggests that the negative information conveyed in negative analyst recommendations is more critical and visible if provided by reputable analysts and thus more likely to influence the board's dismissal decision.

The final set of results shows that the new CEO dismissal likelihood is the highest in the third year of taking the position, followed by the second year, and the lowest in the first year in office. This result is consistent with Zhang (2008), indicating that new top executives have a brief 'honeymoon' period after taking office, particularly in the first year of their position tenures. During this period, boards of directors assess their selection decisions and update their ability estimates while the job of the new CEO seems protected.

5.1 Theoretical contributions

The findings of this essay contribute to a better understanding of the role of financial analysts as information intermediaries for the board of directors when deciding whether to dismiss a newly appointed CEO. In particular, this essay makes several theoretical contributions to the literature on CEO dismissal and succession.

First, it advances theory by suggesting that financial analysts provide valuable information to the board of directors, thereby mitigating the adverse selection problem between the board and a newly appointed CEO. While Wiersema and Zhang (2011) suggested that financial analysts contribute to a better assessment of CEO behavior, to the best of my knowledge I am among the first to show that a negative opinion of financial analysts on a new CEO choice influences his or her dismissal. This essay thus contributes to the literature on the antecedents of CEO dismissal by highlighting the importance of external constituents (i.e., financial analysts) as important informa-

tion intermediaries for the board of directors (Boeker, 1992; Shen & Cannella, 2002a; Shen & Cho, 2005; Wiersema & Zhang, 2011; Zhang, 2008).

Second, this essay advances previous research that has investigated investor reactions to CEO successions (Karaevli, 2007; Warner et al., 1988; Worrell et al., 1993). Previous studies have reported mixed findings concerning the characteristics of the firm, the origin of the new CEO and other important contextual factors (for an overview, see Finkelstein et al., 2009). This essay contributes to that research stream by highlighting analyst opinions as an important factor that might critically affect investor reactions (Stickel, 1992; Womack, 1996; Zuckerman, 1999). In addition, it contributes to recent work by Graffin et al. (2011) who developed a theory of strategic noise that argued that the board of directors actively manages stakeholder impressions when announcing CEO successors, e.g., by releasing confounding information about other significant events. Consistent with Westphal and Graebner (2010), this essay highlights the importance of analyst impressions, which ultimately trigger shareholder reactions. Thus, corporate boards might manage analyst impressions via strategic noise rather than shareholders.

Third, this essay extends recent research by Zhang (2008), which highlighted the dismissal of a newly appointed CEO as an outcome of information asymmetry at the time of succession. The findings complement the study of Zhang (2008) by investigating important information sources that help mitigate the adverse selection problem that the board of directors usually faces in succession decisions. In particular, the findings show that high information asymmetries prompt the board to be more attentive to analyst opinions in its update of the CEO ability estimate, which ultimately affects the dismissal likelihood of new CEOs. Thus, while the work of Zhang (2008) examined different facets of information asymmetry as a determinant of new CEO dismissal, I focus on how prevalent information asymmetries affect the board's behavior in considering external information sources. Taken together, both studies improve the understanding of the implications of adverse selection on the dismissal likelihood of a newly appointed CEO.

Fourth, this essay contributes to the literature on the implications of analyst reputation on corporate outcomes (e.g., Bonner et al., 2007; Desai et al., 2000; Fang & Yasuda, 2009; Stickel, 1992) by investigating how the recommendations by analysts with a high personal reputation affect the dismissal of newly appointed CEOs. By incorporating the personal reputation of analysts, I show that boards are more attentive to information that is perceived to be more valuable. This finding also broadens the understanding of the antecedents of CEO dismissal at selected tenure stages.

5.2 Limitations and future research

This essay is not without limitations. First, because I relied on archival data I was not able to directly observe the board's decision-making processes with regard to the appointment and potential dismissal decision of the new CEO. Future research could, therefore, use other methods (e.g., field studies) to shed more light on the decision-making processes around the replacement of a new CEO. Moreover, this essay is based on a cross-sectional sample of large corporations listed on the S&P 500. It thus may be an issue to generalize the findings to different contexts (in particular smaller or private firms). Future research might examine how boards identify poor selection choices in smaller and private firms or in different national contexts.

Second, I focused on the impact of financial analysts on new CEO dismissal. While financial analysts are arguably an important external constituent for a public organization (e.g., Hayward & Boeker, 1998; Westphal & Graebner, 2010), more research on a broader set of external constituencies could further improve the understanding of new CEO dismissal. Future research could, for example, build upon the study of Farrell and Whidbee (2002) by examining the role of the business press in new CEO dismissal.

Third, this essay is concerned with the adverse selection problem at the announcement of the successor. In order to differentiate between financial analysts' evaluations of the CEO selection choice and the initial actions taken by the new CEO, I measured the change of analyst recommendations after the announcement of the new CEO and then controlled for post-succession firm performance. Since the announcement date and the

succession date rarely coincide, this measure likely is a valid representation of the financial analysts' evaluation of the selection choice. Moreover, this recommendation-measure is not biased by the announcement of the predecessor departure given that this announcement of the predecessor departure and the announcement of the new successor also rarely coincide (i.e., in the study sample the average difference is 30 days). Nevertheless, future research could investigate other measures to evaluate selection decisions.

6 Summary

In conclusion, I draw on agency theory to examine the role of financial analysts as information intermediaries for the board of directors when verifying its CEO selection decision resulting from adverse selection. The findings suggest that the recommendations by financial analysts after the announcement of the successor represent an important source of information that can assist the board in identifying wrong CEO choices thereby ultimately affecting the dismissal likelihood of new CEOs. Moreover, the results indicate that outside CEO successions cause the board of directors to rely more heavily on analyst opinions when deciding whether to dismiss a newly appointed CEO. Finally, I show that the board is more attentive to the recommendations by analysts with a high personal reputation, suggesting that the information of reputable analysts is more valuable to corporate boards when assessing a new CEO appointment. I hope that this essay can inspire future research on the determinants of the early departures of CEOs.

Endnotes

¹ I investigate the change in analyst recommendations in the three months following the announcement of a new CEO candidate. Since the announcement date and succession date rarely coincide (i.e., in my study sample, there is an average time difference of 56 days), the change in analyst recommendation should not reflect the behavior of the new CEO in office.

² Consistent with Zajac (1990) and Zhang (2008), I assume goal incongruence between the board and the CEO candidate (i.e., while the ability of the CEO candidate may not fulfill the board requirements for the CEO position, he or she will still seek to take office).

³ The adverse selection argument does not apply to the dismissal of longer tenured CEOs because corporate boards should have included their updated information in their new CEO ability estimates within the first three years of the CEOs' tenures (cf. Zhang, 2008).

V. Discussion

1 Purpose of dissertation

Drawing on agency-theoretic explanations, the purpose of this dissertation was to examine executive dismissal within the broader governance context that incorporates both internal and external control mechanisms. The dissertation's goal was to improve the understanding of internal control mechanisms by examining the role of specialized knowledge and monitoring incentives in the firm's internal governance structure for executive dismissal. In addition, it sought to address external control mechanisms by shedding more light on the role of financial analysts and their personal and organizational reputation in CEO dismissal. Finally, this dissertation aimed to investigate the role of financial analysts and associated contextual factors in the dismissal of newly appointed CEOs. In the following, I summarize and compare the key findings with regard to those research goals.

2 Overview and comparison of key findings

2.1 Overview of key findings

Overall, the agency theory perspective and supportive findings presented in this dissertation point to the conclusion that a broader governance context that incorporates internal and external control mechanisms influences executive dismissal decisions. The following section highlights the key findings of each research question in more detail.

***First research question:** How do specialized knowledge and monitoring incentives in the firm's internal governance structure affect executive dismissal?*

To answer this research question I examined in the second chapter how the presence of financial expertise and the level of stock ownership in the firm's internal governance structure affect the dismissal of the firm's CFO. The results suggest that the monitor-

ing of the CFO is more effective when outside directors or the CEO have financial expertise, indicating that financial expertise allows monitors to better understand financial policy decisions and actions, which directly translates into their ability to effectively monitor financial experts such as the CFO. The results, furthermore, indicate that the monitor's motivation will also positively influence the effectiveness of monitoring. Specifically, outside directors with a high stock ownership are better motivated to detect firm value-destroying behavior by the CFO, ultimately increasing the likelihood of CFO dismissal. However, a high stock ownership by the CEO does not seem to significantly increase the likelihood of CFO dismissal. Finally, the findings of the second chapter suggest that financial expertise in the firm's internal governance structure provides the foundation for the effective monitoring of the CFO and that ownership stakes moderate that relationship. Thus, stock ownership of monitors seems to be a necessary but not a sufficient condition for effective monitoring. Rather, it likely requires adequate specialized knowledge to be able to effectively assess and scrutinize executives.

Second research question: *How do financial analysts affect CEO dismissal and is their influence contingent on their personal and organizational reputation?*

To answer this research question, I examined in the third chapter how the recommendations by financial analysts affect CEO dismissal and how their personal and organizational reputation moderate this relationship. The results indicate that the board of directors considers analyst recommendations beyond classic firm performance measures in their decision whether to dismiss the firm's CEO. Moreover, additional results suggest that negative analyst recommendations are especially likely to prompt a dismissal decision by the corporate board when analysts, as indicated by their personal or organizational reputation, are believed to issue more informative recommendations. The findings support the agency perspective of this dissertation on the importance of analysts with high reputations as external control mechanisms for organizations. Consistent with this notion, analysts with a high personal or organizational reputation are important information intermediaries who possess comparative advantages in providing directors with reliable information that aids the effective monitoring of executives.

Third research question: *How do financial analysts affect new CEO dismissal and does their impact depend on certain contextual factors?*

To answer this research question I examined in the fourth chapter whether the recommendations by financial analysts after the announcement of the successor affect the board's assessment of the appointment decision, thereby explaining the potential dismissal of a newly appointed CEO. The results suggest that the recommendations by financial analysts after the announcement of the successor represent an important source of information that can assist the board in updating its ability estimate after appointing a new CEO, thus affecting the likelihood of his or her dismissal. Additional results, furthermore, indicate that the board will be more attentive to analyst opinions when the new CEO is an outside hire. Thus, when an outside CEO takes office, the board's uncertainty with regard to his or her ability is relatively high, thereby causing the board to rely more heavily on analyst opinions. Moreover, the results show that relative to non-reputable analysts, the board is more attentive to the recommendations by analysts with a high personal reputation in its decision whether to dismiss a newly appointed CEO. This finding suggests that the negative information conveyed in negative analyst recommendations is more critical and visible if provided by analysts with a high personal reputation and thus more likely to influence the board's dismissal decision. Finally, I find that the new CEO dismissal likelihood is the highest in the third year of taking the position, followed by the second year, and the lowest in the first year in office. This result indicates that new top executives have a brief 'honeymoon' period of taking the position, particularly in the first year of their position tenures. During this honeymoon period, boards of directors assess their selection decisions and update their ability estimates while the job of the new CEO seems protected.

In sum, the findings of this dissertation suggest that both internal and external control mechanisms need to be taken into account in order to explain executive dismissal. Specifically, effective internal control mechanisms require the presence of specialized knowledge and monitoring incentives, and financial analysts can additionally support by serving as important information intermediaries for the board of directors. Moreover, the results show that financial analysts with a high personal and organizational

reputation are especially likely to prompt a dismissal decision. Finally, the findings highlight the importance of the length of the executive's tenure in the dismissal context by suggesting that financial analysts also influence the dismissal of newly appointed CEOs.

2.2 Comparison of key findings

The three research questions in this dissertation addressed executive dismissal from various governance perspectives and using different empirical approaches. However, they are interconnected (i.e., they use a common theory and sample), which allows for a comparison of the results and thereby provides a more complete picture on executive dismissal.

First, the initial research question examined the determinants of effective internal control mechanisms in the context of executive dismissal. The results suggest that executive dismissal requires specialized knowledge and monitoring incentives in the firm's internal governance structure. The second research question investigated the determinants of effective external control mechanisms. The results indicate that the likelihood of executive dismissal increases when financial analysts, who cover the respective firm, issue negative stock recommendations, particularly when the analysts have a high personal or organizational reputation. Thus, internal and external control mechanisms complement one another. Taken together, this suggests that executive dismissal is a complex phenomenon involving multiple governance perspectives.

Second, the first research question examined the role of the CEO as the monitor of the CFO. The results suggest that the CEO – similar to the board of directors – requires specialized knowledge and monitoring incentives to effectively monitor his or her subordinates. By contrast, the second and third research questions focused on the dismissal of the CEO rather than on his or her monitoring function. The results indicate that the board of directors considers stock recommendations by financial analysts when deciding whether to dismiss the firm's CEO. Hence, all research questions together provide a more detailed picture of the position of the CEO. In this context, on

the one hand, the board of directors and external constituents evaluate and scrutinize the CEO, while the CEO assesses and disciplines subordinated TMT members with the board on the other hand. This then raises the question of how effective the monitoring of non-CEOs actually is. For example, previous studies have argued that firms can dismiss executives for symbolic reasons – a phenomenon described as “ritual scapegoating” (Boeker, 1992; Gamson & Scotch, 1964; Khanna & Poulsen, 1995). I thus encourage future researchers to examine the implications and interdependencies of the different roles of the CEO highlighted in this dissertation.

Third, research questions one and two examined the determinants of executive dismissal without explicitly distinguishing between the different stages of executive tenure. The results suggest that for an average tenured executive certain characteristics within the broader governance context have an important influence on the likelihood that the board will dismiss him or her. The third research question, however, examined the dismissal phenomenon for executives in their early years of tenure. The results suggest that the board of directors considers certain information at the time of succession that ultimately influences the likelihood of new CEO dismissal. Taken together, this dissertation thus also highlights the dynamic nature of executive tenure in the context of executive dismissal consistent with Shen (2003) and Hambrick and Fukutomi (1991).

3 Theoretical and practical contributions

3.1 Theoretical contributions

This dissertation provides valuable insights into the influence of the broader governance context on executive dismissal – an occurrence of substantive and symbolic importance. Thus, it not only advances previous studies that have examined non-performance-related determinants of executive dismissal (e.g., Shen & Cannella, 2002a; Wiersema & Zhang, 2011; Zhang, 2008), but also incorporates recent corporate governance research on the precipitating factors of effective internal and external

control mechanisms (e.g., Arthurs, Hoskisson, Busenitz, & Johnson, 2008; Cruz et al., 2010; Gore et al., 2011; Kroll et al., 2008). Overall, this dissertation contributes to the executive succession and governance literature in several ways.

First, it sheds more light on the antecedents of executive dismissal within an internal governance context. A large body of succession research has explained executive dismissal with poor corporate performance (cf. Boeker, 1992; Denis et al., 1997; Ocasio, 1994; Shen & Cannella, 2002a; Weisbach, 1988; Zhang, 2006). However, previous research has also reported that firm performance alone can only explain a modest portion of the variance in executive dismissal decisions (Furtado & Karan, 1990; Halebian & Rajagopalan, 2006; Warner et al., 1988). Finkelstein et al. (2009:170-171) concluded that scholars should “look beyond performance to other precipitating factors” and even highlighted the firm’s agency conditions as a particularly promising research area. Previous research in this context has traditionally focused on the role of board composition as an important internal agency condition for executive succession (Coughlan & Schmidt, 1985; Warner et al., 1988; Weisbach, 1988). However, no studies have looked at the role of the monitors’ specialized knowledge and its interplay with monitoring incentives in the context of executive dismissal. This research gap is particularly surprising because agency theorists have long argued that the presence of specialized knowledge translates into information advantages, which can reduce the extent of information asymmetry between principals and agents (Fama & Jensen, 1983). This dissertation contributes to the succession literature by finding that the specialized knowledge and monitoring incentives of monitors are important internal determinants of executive dismissal beyond corporate performance and board composition. In addition, it advances previous research by illustrating the interdependencies between specialized knowledge and monitoring incentives. More precisely, it contributes to previous succession research by showing that specialized knowledge in the firm’s internal governance structure provides the foundation for an executive dismissal decision and that monitoring incentives moderate that relationship.

Second, this dissertation also improves the understanding of the antecedents of executive dismissal within the external governance context. In particular, it advances recent research by Wiersema and Zhang (2011) on the importance of financial analysts in executive dismissal decisions. While Wiersema and Zhang (2011) showed that financial analysts influence the board's decision to dismiss the firm's CEO, this dissertation complements this landmark study by suggesting that the board of directors is more likely to be alarmed and react with an executive dismissal when analysts with high reputations convey a lack of confidence in the future prospects and strategic direction of the firm. Thus, this dissertation is among the first to show that the reputations of financial analysts influence the board's dismissal decision beyond firm performance measures. Moreover, I advance previous succession research by showing that financial analysts are also able to mitigate the adverse selection problem between the board and a newly appointed CEO. While Wiersema and Zhang (2011) suggested that financial analysts contribute to a better assessment of CEO behavior, this dissertation shows that a negative opinion of financial analysts about a new CEO choice influences his or her dismissal. Moreover, it complements the study of Zhang (2008) by investigating important information sources that help to mitigate the adverse selection problem that the board of directors usually faces in succession decisions. For example, it shows that high information asymmetries prompt the board to be more attentive to analyst opinions in its update of the CEO's ability, which ultimately affects the dismissal likelihood of new CEOs. This dissertation thus improves the understanding of the implications of adverse selection on the dismissal likelihood of newly appointed top executives.

Third, taken together both perspectives provide a more complete picture of the complex phenomenon of executive dismissal. Beck and Wiersema (2011) argued that internal and external control mechanisms increasingly merge to become a new modern sphere of corporate governance. For example, Beck and Wiersema (2011:399) noted that the board of directors and top executives are more "dynamically occupied in dialogue" with the financial community. This dissertation advances previous research in this context by showing how and when the board of directors considers analyst opin-

ions in its dismissal decision. In particular, it highlights that the board is more attentive to analyst opinions when financial analysts have high reputations, thereby indicating a higher quality of information. Moreover, it shows that the level of information asymmetry between the board of directors and the executives also explains the consideration of external and independent information in executive dismissal. In addition, it contributes to previous research in this context by illustrating that corporate boards particularly rely on the information of external constituents in certain stages of executive tenure such as in the early years of an executive taking office. In sum, this dissertation provides the first systematic empirical examination of the broader governance context influencing executive dismissal.

3.2 Practical contributions

The findings of this dissertation are also of practical significance for various actors within and outside of the modern corporation. From the perspective of the board of directors, this dissertation primarily contributes through a better understanding of effective board practices. In particular, it highlights the importance of specialized knowledge and monitoring incentives on the effective monitoring of corporate leaders as a basis for a potential dismissal decision. Thus, directors who lack specialized knowledge are handicapped with an insufficient monitoring ability, by which to detect any potential opportunistic behavior within its leadership team. Moreover, monitoring incentives for directors are necessary but not a sufficient condition for effective monitoring. These findings, therefore, indicate that specialized knowledge and monitoring incentives play an important role in director selection and compensation. While previous work in this context has largely focused on the role of board composition, this dissertation adds new insights into the fundamental determinants of board effectiveness. In addition, it is interesting for corporate boards because it improves the understanding of their relation to external information intermediaries such as financial analysts. While the assessment of the leadership team using traditional performance metrics is useful, such measures do not sufficiently account for the firm's future prospects. In order to assess those future prospects, corporate boards usually depend on manage-

ment-filtered information in board meetings. However, various governance reforms such as the SOX have led corporate boards to look for other independent information sources when attempting to assess their leadership teams, including the CEO. For example, this dissertation shows that corporate boards benefit from attracting coverage by analysts with higher reputations because this is likely to improve the underlying information quality when making important corporate decisions. Moreover, it highlights the dynamic nature of executive tenure and encourages corporate boards to employ a more dynamic approach to their decision-making processes, for example by prioritizing their information sources depending on the executive's tenure stage.

From a CEO-perspective, this dissertation provides more transparency about the board's decision process when deciding whether to dismiss the firm's CEO. The role of financial analysts in executive dismissal decisions is also of particular interest for CEOs because they find themselves increasingly more engaged with this instrumental external constituent (Beck & Wiersema, 2011). For example, the CEO of General Electric, Jeffrey Immelt, reported that he spends a quarter of his time in meetings with the financial community (Bartlett, 2006). Thus, this dissertation shows that CEOs must be highly attuned to the recommendations by financial analysts, not only to provide details on the firm's financial position, but also, and more importantly to explain the firm's future prospects given its competitiveness and strategy. This dissertation, therefore, also contributes to a better understanding of why CEOs often seek to manage the impressions of financial analysts as introduced in the study of Westphal and Graebner (2010). Moreover, it suggests that the board of directors is more attentive to analyst opinions when analysts have high reputations. Thus, CEOs may also want to direct their attention to reputable analysts in their regular communications or when managing the impressions of financial analysts thereby increasing the likelihood of remaining in office. In addition, because financial analysts also play an instrumental role when the board seeks to verify its new CEO choice, strong and enduring relationships with the financial community may help the CEO "survive" the first years in office. However, despite providing a better understanding of the relevant dismissal determinants, this dissertation also sheds new light on the monitoring role of the CEO as superior to his

or her leadership team. The monitoring function of the CEO is important because CEOs are in a unique position to monitor their leadership teams because of the amount of time they spend with them. This dissertation shows that CEOs require specialized knowledge and monitoring incentives to effectively monitor their subordinates. Thus, it may be important for CEOs to develop a higher degree of specialized knowledge in order to improve their own monitoring ability.

From a TMT-perspective, this dissertation contributes by providing a more complete picture of the firm's internal governance structure. Non-CEOs within the TMT must not only be attuned to the board of directors but also to the CEO as the monitor of their behavior and decisions. In particular, this dissertation shows that non-CEOs such as the CFO are likely to face a higher dismissal likelihood if monitors have a high degree of specialized knowledge. Thus, being aware of the relevant governance bodies and the drivers of their effectiveness may be beneficial for the career outcomes of non-CEOs. Interestingly, because many executives do not sit on their corporate boards, they often rely on the CEO to manage the relationship with the board of directors. For example, Stuart (2010) found for CFOs that "only 1.5% of S&P 500 company directors are or have been CFOs; of those directors, about 30% are current finance chiefs". As a result, non-CEOs may need to think about alternative ways on how to shape the perceptions of those relevant governance bodies.

This dissertation also has significant implications for financial analysts themselves, because it provides a systematic examination of their role in the dismissal decision process. Overall, it shows that analysts have a strong influence on important corporate outcomes such as executive dismissal. Moreover, this influence seems stronger when analysts have high reputations or when the information asymmetry surrounding the board of directors is high. Thus, gaining a personal or organizational reputation is likely to increase the influence of financial analysts over important corporate outcomes such as executive dismissal. In addition, an analyst needs to be aware that the timing of his or her recommendation may also affect his or her influence. Although the specific recommendation issued on a company's stock represents the overall evaluation by the analyst at a certain point in time, analysts might want to anticipate that the

board of directors needs to verify certain corporate decisions such as a new CEO appointment. By contrast, while the role of financial analysts as independent information providers is important analysts strongly rely on access to management as one of their major information sources. Not surprisingly, previous research has found that financial analysts often gain a better management access when they issue favorable recommendations (Chen & Matsumoto, 2006; Westphal & Clement, 2008). Thus, financial analysts can be biased when they pursue management favors, which ultimately may buffer management from a potential dismissal. This dissertation thus also touches on the downside of relying on financial analysts as external control mechanisms by finding that positive analyst recommendations actually buffer executives from a potential dismissal.

4 Limitations

This dissertation has some limitations. First, I relied on archival data and it was thus not possible to capture the direct intentions, evaluations and actions of internal and external constituents that ultimately led to the incidence of executive dismissal. For example, the measures I used in this dissertation relied on publicly available data sources and thus I did not consider information that was provided by the executives or directors themselves. Hence, I could have made stronger inferences about executive dismissal decisions if I had been able to gain access to such information.

Second, the results of this dissertation required a complex classification between an executive departure and an executive dismissal. As described in the research approach, firms tend to not announce an executive dismissal as such; they rather prefer to describe a dismissal in more affable terms (cf. Warner et al., 1988). Although my classification approach is based on well-established criteria from the succession literature (Farrell & Whidbee, 2003; Parrino, 1997; Weisbach, 1988), there may still be some errors in the classification of the executive departures, potentially biasing the results.

Third, the scope of this dissertation was limited to a small group of executives and governance bodies. For example, the second chapter examined the dismissal of CFOs, which simplified the identification of the required specialized knowledge to monitor the executive's actions and decisions (Gore et al., 2011; Li et al., 2010). Chapter 3 and 4 focused on the impact of financial analysts on CEO dismissal because analysts are arguably important external constituents for public organizations (e.g., Beck & Wiersema, 2011; Hayward & Boeker, 1998; Westphal & Graebner, 2010; Wiersema & Zhang, 2011). However, the agency theory perspective in this dissertation could also be relevant to a broader set of executives as well as a larger number of internal and external governance bodies.

Fourth, the sample of this dissertation consisted of large, publicly traded US companies listed on the S&P 500 index, which limits the generalizability of the results. Internal governance structures of smaller and private firms may be composed differently, may have different access to knowledge and may have different dismissal decision-making processes. Moreover, financial analysts may not be as important, which may require the presence of other governance mechanisms. Thus, the postulated relationships should be viewed with caution when seeking to generalize the findings to smaller, private or even non-American firms. In addition, the covered time period of the sample from 1997 to 2009 also saw some unusual fluctuations in the stock market such as the global financial crisis in the late 2000s. Thus, those events could have potentially biased the frequency of executive dismissal decisions and thereby the results of this dissertation.

5 Future research

The reported findings represent new insights into the broader governance context of executive dismissal decisions and, therefore, provide important implications for future research on corporate governance and executive succession.

An important research avenue to pursue would be to examine the role of specialized knowledge and incentives for the board of directors on the dynamics of the succession process as well as on the choice of a certain successor. While the purpose of this dissertation was to focus on the determinants of executive dismissal, a number of studies have highlighted the intertwined nature of the departure type with the succession process as well as with successor selection (e.g., Cannella & Shen, 2001; Shen & Cannella, 2002a, 2002b; Shen & Cannella, 2003). Thus, examining the findings of this dissertation in light of the other two turnover stages would generate many unexplored research directions. For example, Ballinger and Marcel (2010) empirically examined the performance implications of interim successions, which are an “interesting new phenomenon” in the management literature (Beck & Wiersema, 2011:388), and found that the use of an interim successor generally harms firm performance. Thus, it would be interesting to see if more “knowledgeable” and incentivized corporate boards or even nominating committees (cf. Zhang, 2008) would be better at either avoiding interim successions or selecting a “well-performing” interim successor. Similarly, little is known about how specialized knowledge and incentives relate to the choice of the succession process (e.g., a relay succession or a horse race). This could be an interesting research avenue if scholars can overcome potential data availability issues. Moreover, assessing how specialized knowledge and incentives affect the selection of certain successors would be beneficial as well (Karaevli, 2007; Tian, Haleblian, & Rajagopalan, 2010; Zhang & Rajagopalan, 2010).

In addition, future research could examine the role of conflicts of interests in the provision of dismissal-relevant information by financial analysts to the board of directors. Thus, instead of focusing on the role of financial analysts as independent information intermediaries, it will be interesting to see if and how analysts influence corporate decision-makers to reach a certain outcome. Previous studies have shown that financial analysts tend to issue biased recommendations and forecasts (e.g., Hayward & Boeker, 1998; Hong & Kubik, 2003; Lim, 2001). For example, biased analyst opinions are generally attributed to institutional incentives, such as investment banking relationships (Hayward & Boeker, 1998; Lin & McNichols, 1998; Michaely & Womack,

1999), relations with executives (Das et al., 1998; Francis & Philbrick, 1993; Lim, 2001) and trade generation (Jackson, 2005). Wiersema and Zhang (2011) provided the first empirical evidence on this interesting research avenue by comparing two time periods – a pre- and a post-litigation period – to estimate the credibility of financial analysts. However, few studies have systematically examined the factors that explain when financial analysts seek to influence an executive dismissal decision through biased recommendations and how directors react to this influence attempt. Interestingly, the concept of personal and organizational analyst reputation could be pivotal for the level of analyst bias (Fang & Yasuda, 2009).

Another fruitful research avenue to pursue would be to further detail the temporal features of the executive's tenure in relation to executive dismissal decisions. This dissertation approaches this research direction in the fourth chapter by providing empirical evidence on the role of financial analysts in the dismissal of a newly appointed CEO. In a similar vein, research has highlighted the dynamic nature of executive tenure (e.g., Hambrick & Fukutomi, 1991; Shen, 2003). As a result, some studies have empirically examined how executive tenure relates to strategic change and corporate performance (Henderson, Miller, & Hambrick, 2006; Miller & Shamsie, 2001; Wu, Levitas, & Priem, 2005). In the dismissal context, previous studies have largely concentrated on the important phenomenon of early dismissal consistent with this dissertation (Shen & Cannella, 2002a; Zhang, 2008). Nevertheless, little is known about if and how determinants of executive dismissal as well as the influence of the broader governance context change throughout an executive's tenure. Thus, future research could focus specifically on the dynamic nature of tenure in the context of executive dismissal, thereby identifying determinants that are relevant during the entire executive tenure or at particular tenure stages.

It could also be interesting for future research to qualitatively examine the intentions, evaluations and actions of internal and external constituents in the executive dismissal context. The agency theory perspective along with the empirical research setting in this dissertation cannot entirely capture the complex decision-making process around executive dismissal. For example, an important executive succession stream has exam-

ined the distribution of power between the CEO and so-called “CEO contenders” (Shen & Cannella, 2002a) or the board of directors (e.g., Westphal & Zajac, 1995; Zajac & Westphal, 1996a; Zajac & Westphal, 1996b), which can influence corporate outcomes. Thus, future qualitative work could expand upon this dissertation and facilitate a better understanding of the actions and perceptions of financial analysts as well as of internal governance bodies that might shape the actual decision-making process with regard to executive dismissal. Empirical future research could also address this gap by expanding on the processes underlying board decision-making such as the role of conflicts (Carpenter, 2002; Eisenhardt, Kahwajy, & Bourgeois, 1997), consensus (Priem, 1990) and comprehensiveness (Miller, Burke, & Glick, 1998).

Finally, another important research direction to pursue would be to examine a broader list of external control mechanisms with regard to executive dismissal. This dissertation emphasized the role of financial analysts as influential information intermediaries for the board of directors when deciding whether to dismiss the firm’s CEO. However, researchers have also investigated the roles of other external constituents such as the media (e.g., Farrell & Whidbee, 2002) or institutional investors (e.g., Del Guercio, Seery, & Woidtke, 2008) in the context of executive dismissal. Thus, future research could simultaneously look at the effects of different external constituents to improve the understanding of how and when the board of directors considers information by certain stakeholders. Moreover, future research could examine if and when external constituents are able to substitute internal control mechanisms. This research gap is particularly relevant in times of increasingly busy boards (e.g., Fich & Shivdasani, 2006).

6 Conclusion

In conclusion, this dissertation provides empirical evidence on the influence of the broader governance context on executive dismissal. It advances previous work on internal control mechanisms by relating specialized knowledge and monitoring incentives in the firm's internal governance structure to executive dismissal. In addition, this dissertation develops new theory on external control mechanisms by shedding more light on the role of financial analysts and their personal and organizational reputation in CEO dismissal. Finally, it highlights the role of financial analysts and associated contextual factors in the dismissal of newly appointed CEOs. I hope that this dissertation will spur future research efforts that examine how internal and external control mechanisms shape corporate decisions in other contexts.

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